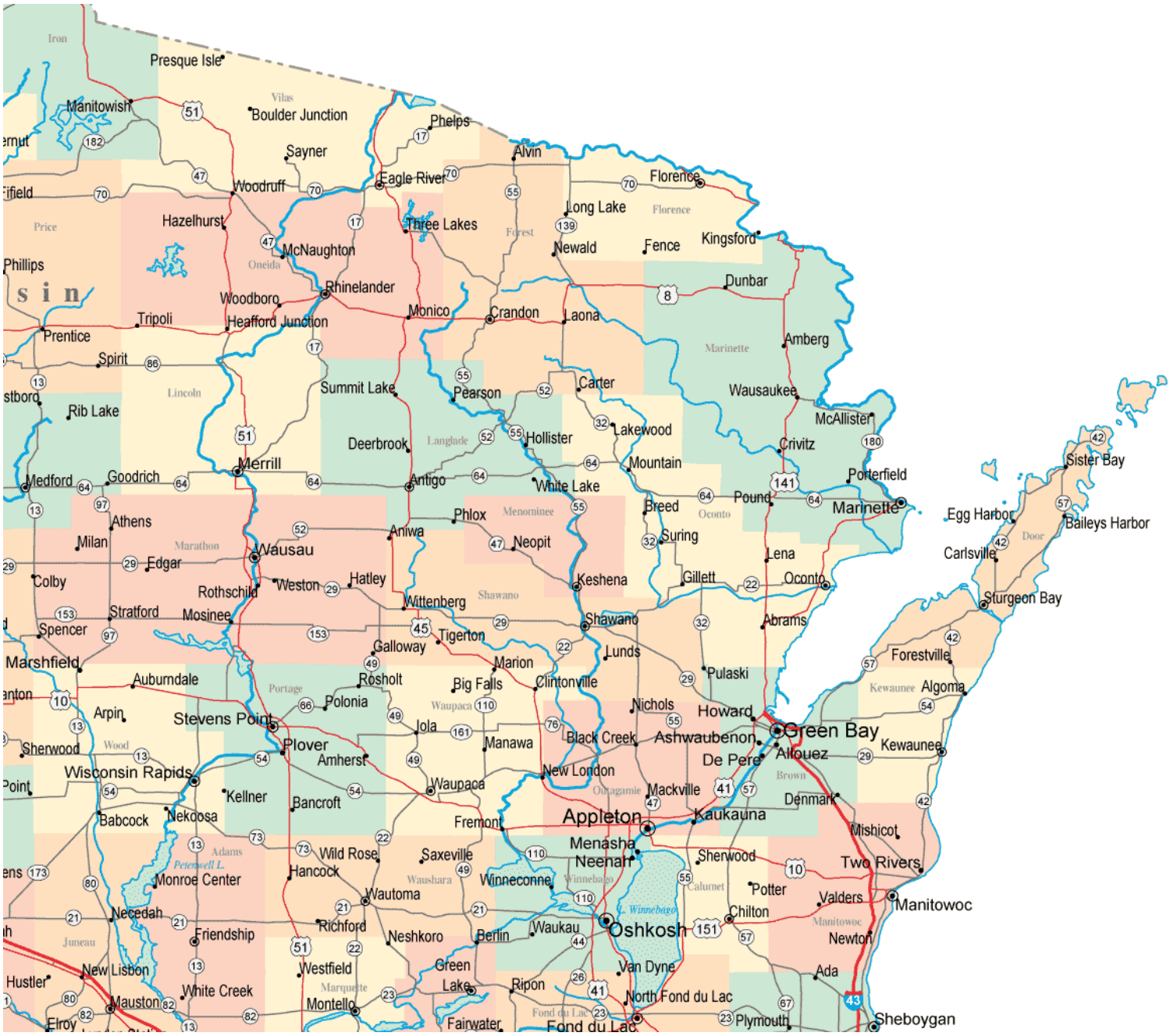
2016

TORNADO / WATERSPOUT GUIDE

NORTH CENTRAL / NORTHEAST WISCONSIN



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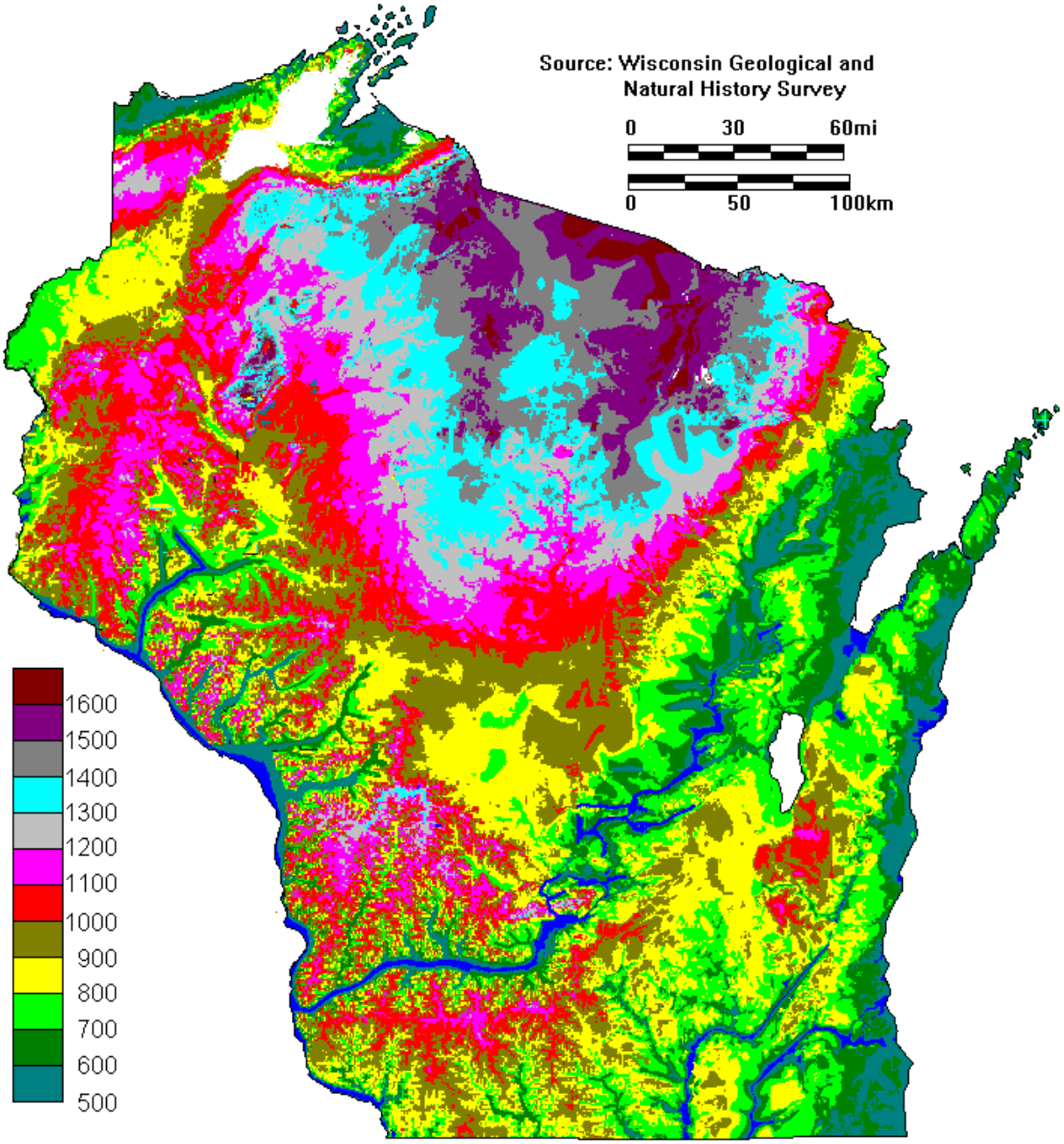

2016

TORNADO / WATERSPOUT GUIDE

NORTH CENTRAL / NORTHEAST WISCONSIN

BROWN

CALUMET

DOOR

FOREST

FLORENCE

KEWAUNEE

LANGLADE

LINCOLN

MANITOWOC

MARATHON

MARINETTE

MENOMINEE

OCONTO

ONEIDA

OUTAGAMIE

PORTAGE

SHAWANO

VILAS

WAUPACA

WAUSHARA

WINNEBAGO

WOOD

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All information was taken from the local storm data publication from NCDC from 1959 to present. Local newspaper accounts were also included in the tornado write ups. All times are set to local standard time to avoid confusion when daylight savings time was in effect.

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TORNADO REFERENCE GUIDE - CHRONOLOGICAL ORDER
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

	F/EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	4	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	2	6	25	1950	2100	3 W Colby - 3 NE Abbotsford	Marathon
3	3	9	18	1950	1430	2 N Waupaca - Weyauwega	Waupaca
4	4	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage - Waupaca
5	1	6	20	1953	1800	Three Lakes	Oneida
6	2	4	15	1954	1500	2 NE Neshkoro - Redgranite	Marquette - Waushara
7	2	6	20	1954	230-240	Rothschild to 6 NE Mosinee	Marathon
8	2	6	20	1954	0400	Brothertown	Calumet
9	1	5	3	1955	1800	Irma	Lincoln
10	1	5	28	1955	1505	3 W Clintonville	Waupaca
11	2	4	3	1956	1250	3 S Bancroft - 2 NW Amherst	Portage
12	4	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara - Winnebago
13	2	4	6	1956	1345-1353	Ogdensburg - Symco	Waupaca
14	2	7	1	1956	1205	5 E of Maplewood to 4 SE Institute	Door
15	2	4	19	1957	1600-1615	3 W Wautoma - 2 NW West Bloomfield	Waushara
16	1	4	19	1957	1600	Coddington - Bancroft	Portage
17	1	6	14	1957	1730	Florence	Florence
18	1	7	11	1957	1345	4 SW Denmark	Brown
19	1	7	11	1957	1400	2.5 SE Whitelaw	Manitowoc
20	2	5	17	1958	1540	3 W - 2NE Wausaukee	Marinette
21	3	6	4	1958	1930-2006	6 SE Chippewa Falls to 2 NW Athens	Marathon
22	2	6	30	1958	1730	1 NW Gleason	Lincoln
23	1	8	30	1958	1526	6 SE Wausaukee	Marinette
24	1	5	4	1959	1030	Wausau	Marathon
25	1	5	4	1959	1145	Deerbrook	Langlade
26	2	5	6	1959	0320	Symco to 3 SE Clintonville	Outagamie - Waupaca
27	2	5	6	1959	1330	3 NE Shiocton	Outagamie
28	2	5	10	1959	2050-2055	Green Bay	Brown
29	1	5	28	1959	1515	6 N to 9 NE Oshkosh	Winnebago
30	1	5	28	1959	1538	1 SW Greenleaf	Brown
31	0	5	28	1959	1530	6 SW De Pere	Brown
32	1	6	10	1959	1320	De Pere	Brown
33	2	7	8	1959	1654	Niagara	Marinette
34	2	8	28	1959	1404	3 N Appleton	Outagamie
35	1	4	24	1960	1600	7 SW Valders	Manitowoc
36	1	5	21	1960	1730	15 W Oshkosh	Winnebago
37	2	11	15	1960	1425	2 NE Chili to near Rib Mountain	Marathon
38	2	9	3	1961	0010	Fenwood	Marathon
39	1	9	3	1961	0100	Athens	Marathon
40	1	9	3	1961	1700	12 W Merrill	Lincoln
41	1	6	23	1962	1630-1635	2 W Champion	Brown
42	0	6	23	1962	1900	15 E Stevens Point	Portage
43	2	7	24	1962	1700	Corning	Lincoln
44	1	9	19	1963	1800	Laona	Forest
45	1	5	4	1964	1800-1810	10 SW St. Germain to near St. Germain	Oneida

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#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	2	5	7	1964	1800	Wisconsin Rapids	Wood
47	2	5	8	1964	1700	5 N Iola - 1 W Clintonville	Waupaca
48	2	5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	Marathon
49	2	5	8	1964	1830-1906	Winneconne-Wrightstown	Brown-Calumet-Winnebago-Outagamie
50	0	5	30	1964	1328	Green Bay - Bellevue	Brown
51	1	6	9	1964	1455	Belle Plaine	Shawano
52	2	6	9	1964	1500	Pound	Marinette
53	2	8	22	1964	1400	6 W Bancroft - Grant	Portage
54	2	7	8	1965	1700	1 W - 1N Sherwood	Calumet
55	2	6	4	1966	1900	Gillett - 2 NE Oconto Falls	Oconto
56	2	6	4	1966	1900	Suring	Oconto
57	1	7	10	1966	2200	Plainfield - Wautoma	Waushara
58	0	7	25	1966	1820	0.5 E Maplewood	Door
59	2	3	31	1967	2349	Marshfield	Wood
60	2	6	30	1967	2349-2359	Chilton - 7 E Chilton	Calumet-Manitowoc
61	1	7	1	1967	0045	3 E Kiel	Manitowoc
62	1	7	2	1967	1400	Brillion	Calumet
63	2	7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	Wood
64	2	6	30	1968	0400	3 NW Cavour	Forest
65	1	6	30	1968	0445	3 S Pembine	Marinette
66	1	8	5	1968	1400	3 NW Seymour	Outagamie
67	2	8	16	1968	1230	Kaukauna	Outagamie
68	2	8	16	1968	2120	5 SE Hofa Park - 4 S Pulaski	Brown
69	4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
70	2	8	19	1968	1730	4 W Fenwood - 11 E Fenwood	Marathon
71	3	6	26	1969	1115-1130	Black Creek - 8 W Sobieski	Outagamie-Shawano-Oconto
72	1	6	26	1969	1630	2 W Manitowish Waters - 3 SW Presque Is.	Vilas
73	2	6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	Vilas
74	1	6	26	1969	1700	Skanawank - Pelican Lake	Lincoln
75	0	7	2	1969	1600	Symco	Waupaca
76	1	7	2	1969	1620	3 SW Luxemburg - Ellisville	Kewaunee
77	2	4	22	1970	2040	Ashwaubenon to Green Bay - north side	Brown
78	2	4	22	1970	2100	De Pere to Green Bay	Brown
79	2	4	22	1970	2100-2110	1 N Casco - Rio Creek	Door-Kewaunee
80	2	4	22	1970	2120-2130	7 SE Maplewood	Door
81	2	4	22	1970	2120	Algoma - 6 NE Algoma	Kewaunee
82	1	4	22	1970	2110	2 NE Poland - 4 SE Luxemburg	Brown-Kewaunee
83	0	5	21	1970	2010	Green Bay - north side	Brown
84	0	6	17	1970	1835	3 S Wisconsin Rapids	Wood
85	2	7	7	1970	1500	Bancroft	Portage
86	1	7	7	1970	1900	Winchester - Boulder Junction - Conover	Vilas
87	1	7	14	1970	1230	Marion	Waupaca
88	1	7	14	1970	1400	McAllister	Marinette
89	1	7	30	1970	1205	4 W Suamico	Brown
90	1	12	1	1970	0700	Hull	Portage
91	2	12	1	1970	0900	12 SE Marshfield	Wood

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#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
92	2	12	1	1970	0945-1030	4 NW Iola - Pella	Shawano - Langlade-Oconto
93	3	12	1	1970	1010-1045	near Medina - Rose Lawn	Outagamie-Shawano
94	0	4	22	1971	1730	4 SW Hilbert	Calumet
95	1	5	18	1971	1640-1704	Adams-Friendship - Hancock	Waushara
96	1	6	6	1971	2315	5 SW Oshkosh	Winnebago
97	1	6	13	1971	1630	8 NW Oshkosh	Winnebago
98	1	6	18	1971	1345	5 W Marinette	Marinette
99	1	7	8	1971	0200	Wisconsin Rapids	Wood
100	0	7	30	1971	0700	4 E Oshkosh (waterspout)	Winnebago
101	3	9	28	1971	1400-1605	23 NE Eau Claire - Athens	Marathon
102	3	9	28	1971	1600-1720	3 NE Brokaw - Middle Inlet	Marathon-Langlade-Oconto-Marinette
103	2	9	28	1971	1415-1605	19 SW Merrill - Merrill	Lincoln
104	1	8	21	1972	1510	Goodwin - Two Rivers	Manitowoc
105	2	9	16	1972	1605	4 NW Wabeno - 2 N McAllister	Forest-Marinette
106	1	3	11	1973	1030	2 E Calumetville	Calumet
107	1	5	9	1973	1550	2 N Reedsville	Manitowoc
108	1	6	3	1973	1815	2 NE Amberg	Marinette
109	1	6	18	1973	1100	2 W Athens	Marathon
110	1	7	12	1973	0300	Boulder Junction - Sayner	Vilas
111	1	7	12	1973	0730	Jacksonport	Door
112	1	7	12	1973	0800	4 W Freedom	Outagamie
113	2	4	12	1974	1405	5 W Athens	Marathon
114	2	4	12	1974	1415	Wittenberg - Bowler	Shawano
115	4	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
116	2	4	21	1974	1525	4 NNW Crivitz	Marinette
117	1	6	9	1974	1445	Bancroft	Portage
118	1	6	14	1974	1610	5 NW Gillett	Oconto
119	2	6	12	1976	2030	1 W Alban	Portage
120	1	6	12	1976	2100	Amherst	Portage
121	1	6	13	1976	1840-1920	4 Wisc. Rapids - 3 NE Stevens Point	Portage
122	2	6	13	1976	1900	Plover	Portage
123	1	6	13	1976	2000-2010	2 W Hogarty - Elton	Langlade-Marathon-Lincoln
124	1	6	13	1976	2000	5 E Seymour	Outagamie
125	1	6	13	1976	2015	Oconto Falls	Oconto
126	1	6	13	1976	2045	9 E Merrill to 11 NW Antigo	Langlade-Lincoln
127	1	7	30	1977	2245	0.5 N Forest Junction - 3 W Denmark	Brown
128	3	8	31	1977	1815	1 SW Stratford - Wausau	Marathon
129	1	5	8	1978	1650-1700	1.5 SW - 2.5 SE Luxemburg	Kewaunee
130	2	6	7	1978	1515	2 NW Francis Creek	Manitowoc
131	2	6	16	1979	0930	Oconto Falls - 2 NE Lena	Oconto
132	1	6	16	1979	1530-1545	2 N - 2 NE Irma	Lincoln
133	1	6	20	1979	1345	3 S Oshkosh	Winnebago
134	1	6	20	1979	1430	Goodman	Marinette
135	1	8	4	1979	1000	Manitowoc	Manitowoc
136	2	8	9	1979	1820	Rockland Beach	Calumet

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137	1	8	9	1979	1856	Green Bay - northeast	Brown
138	1	5	30	1980	1430	4 S Shawano	Shawano
139	1	5	30	1980	1520	Oconto	Oconto
140	1	5	30	1980	1605-1614	Black Creek	Outagamie
141	2	6	7	1980	0020	Valders	Manitowoc
142	1	6	14	1980	1230	5 NW Manawa - Manawa	Waupaca
143	1	6	14	1980	1325	1 E Rhinelander - Lake Thompson	Oneida
144	0	6	14	1980	1422	5 N Rhinelander	Oneida
145	1	7	5	1980	0030	Valders	Manitowoc
146	1	9	20	1980	2315	Mattoon	Shawano
147	2	4	4	1981	0035	4 W Kiel	Calumet
148	1	6	13	1981	2040	1 N Hazelhurst	Oneida
149	1	6	13	1981	2045	Sayner - 3 NE Sayner	Vilas
150	2	6	13	1981	2100	Three Lakes	Oneida
151	1	3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	Portage-Wood
152	2	5	6	1982	1430	2 S Stephensville - 1 S Black Creek	Outagamie
153	1	7	15	1982	1915	Mayflower Lake	Marathon
154	1	7	3	1983	0439	Eagle River	Vilas
155	2	7	3	1983	1735	6 W Unity - Cherokee	Marathon
156	1	7	3	1983	1900	Birnamwood	Shawano
157	0	7	3	1983	1911	5 NE Nekoosa	Wood
158	1	7	19	1983	1925	Stockbridge Harbor	Calumet
159	0	4	27	1984	0405	Saratoga	Wood
160	2	4	27	1984	1450	4 NW Antigo	Langlade
161	3	4	27	1984	1437-1507	Fawn Lake - Star Lake	Oneida-Vilas
162	3	4	27	1984	1455-1540	Union (Waupaca Co) - Legend Lake	Menominee-Shawano-Waupaca
163	4	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
164	2	4	27	1984	1415	0.5 S Plover	Portage
165	1	6	26	1984	1655	13 N Wausau - Texas	Marathon
166	1	6	26	1984	1900	Caroline	Shawano
167	0	7	14	1984	2035	1 SE Peshtigo	Marinette
168	0	7	26	1984	1300-1310	5 E Oshkosh (waterspout)	Winnebago
169	2	9	24	1984	1650	13.5 WSW Wausau - Wausau	Marathon
170	3	6	8	1985	1815-1852	Park Falls - 3 SE Monico	Price-Oneida
171	2	6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	Door
172	0	7	4	1985	1703-1717	1 N Redgranite - 1 SW Pine River	Waushara
173	2	8	12	1985	1813-1830	6 S Marshfield - Auburndale	Wood
174	0	8	12	1985	1930-1945	1 N Richford	Waushara
175	3	7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	Marinette
176	2	7	4	1986	1935-1940	5 SE Hazelhurst	Oneida
177	1	7	24	1986	1415	Saint Germain	Vilas
178	1	7	2	1987	1710-1715	Pike Lake	Marathon
179	1	7	12	1987	1127-1130	1 S Francis Creek	Manitowoc
180	1	8	14	1987	1740-1743	1 W Menasha	Winnebago
181	2	5	8	1988	1710	4.5 SW Hadler - Rib Falls	Marathon

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#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
182	1	5	8	1988	1706-1712	2 SE Wautoma - 1 S Mount Morris	Waushara
183	0	5	8	1988	1712	3 W Keene	Portage
184	1	7	29	1988	2030	Eagle River	Vilas
185	1	8	1	1988	1852	1 W Saint Germain	Vilas
186	0	8	1	1988	1820	3 S Hazelhurst	Oneida
187	0	8	1	1988	1922	2 SE Eagle River	Vilas
188	1	8	4	1988	1435-1445	1 E Reedsville - 2 N Cato	Manitowoc
189	0	9	19	1988	1605	1 E Plainfield	Waushara
190	0	9	19	1988	1637	1 W Edgar	Marathon
191	1	5	24	1989	2010-2015	3 S Oshkosh	Winnebago
192	1	5	24	1989	2105	4 WNW Chilton	Calumet
193	0	5	24	1989	2115	1 E Cooperstown	Manitowoc
194	1	6	12	1990	1835	2 W Stratford	Marathon
195	1	6	14	1991	1155	8 WNW Merrill	Lincoln
196	2	6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	Oneida
197	0	7	28	1991	1015	** Near Rock Island	Door
198	0	7	28	1991	1015	** Near Washington Island	Doo
199	0	9	14	1991	1800	2 W Green Valley	Shawano
200	1	4	20	1992	1600-1620	2 SW Arpin - Bakerville	Wood
201	1	5	16	1992	1430	5 N Junction City	Portage
202	2	5	16	1992	1810-1830	4 W Keene - 5 SE Amherst	Portage
203	1	5	16	1992	1830	2.5 NE Northland	Waupaca
204	1	5	16	1992	1920-1930	Kaukauna - 2 SW Wrightstown	Outagamie-Brown
205	0	6	17	1992	1255	2 NE Denmark	Brown
206	1	7	19	1992	1554	2 WSW Stratford	Marathon
207	3	8	29	1992	1910-1955	1 N Wautoma - 3 SE Poysippi	Waushara
208	1	10	8	1992	1648	5 NE Wild Rose	Waushara
209	1	10	8	1992	1712	4 NE Blaine	Portage
210	0	6	8	1993	1838	2.5 S Spring Lake - 2 W Auroraville	Waushara
211	0	6	8	1993	1915	0.5 E Dakota - 2 S Redgranite	Waushara
212	0	6	8	1993	1935-1945	5 SE Redgranite - 3 SE Auroraville	Waushara
213	0	6	8	1993	1735	1 E Pickett	Winnebago
214	0	8	9	1993	2015	1 N Tripoli	Oneida
215	0	4	24	1994	1525	3 S Luxemburg	Kewaunee
216	1	4	26	1994	1455-1505	1.5 N Conover - 3 SE Land O'Lakes	Vilas
217	2	5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	Forest
218	0	7	4	1994	1649	4 W Fremont	Waupaca
219	4	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc
220	2	7	5	1994	1553	2 SW Cooperstown	Manitowoc
221	1	7	8	1994	1400	3 NW Elderon	Marathon
222	1	7	8	1994	1416	3 SE Aniwa	Shawano
223	1	8	27	1994	2107	Hancock	Waushara
224	1	8	27	1994	2141-2150	1.5 S Wausaukee - 3 SE Wausaukee	Marinette
225	0	6	29	1995	1105	10 SW Kewaunee	Kewaunee
226	1	7	14	1995	1640-1647	Phelps	Vilas

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#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
227	0	4	25	1996	1755-1757	2 W Pensaukee	Oconto
228	0	6	11	1996	1608-1609	5 NW Chilton	Calumet
229	1	7	18	1996	1620-1630	1.5 SW - 3 SSE Tomahawk	Lincoln
230	0	7	18	1996	1745	5 NE Oshkosh (waterspout)	Winnebago
231	1	7	18	1996	1805-1807	1.1 S - 1.6 SE Jericho	Calumet
232	0	7	18	1996	1810	5.9 S Chilton	Calumet
233	0	7	18	1996	1815-1816	2.2 WNW - 1.8 W St Anna	Calumet
234	2	8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	Marathon
235	1	8	7	1996	0146-0147	1 N - 1.2 NE Stratford	Marathon
236	1	8	7	1996	0219-0221	0.4 SW Shantytown - Shantytown	Marathon
237	2	7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	Lincoln
238	2	7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	Marathon
239	0	7	16	1997	1500-1501	4 SW - 4.2 SW Hogarty	Marathon
240	0	7	16	1997	1500	3 N Sunset	Marathon
241	1	7	16	1997	1509-1511	2 NE - 1.8 NE Ringle	Marathon
242	0	7	16	1997	1520-1522	2 N - 1.8 N Elderon	Marathon
243	0	7	16	1997	1641-1642	Hancock	Waushara
244	0	3	29	1998	1928-1935	3 W - 3 N Tomahawk	Lincoln
245	0	5	31	1998	0020-0021	4 WSW Mosinee	Marathon
246	1	5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	Calumet
247	0	6	16	1998	1500	3 WNW Coloma	Waushara
248	0	8	23	1998	1522	Menasha	Winnebago
249	3	8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	Door
250	0	5	5	1999	1630-1631	1 WNW Tomahawk	Lincoln
251	0	8	3	1999	1745	3 W Pittsville	Wood
252	0	8	4	1999	1605-1615	21 ESE Sturgeon Bay (waterspout)	Door
253	0	9	9	1999	1455	3 N Sister Bay (waterspout)	Door
254	0	9	19	1999	1646-1710	8 SE Sturgeon Bay (waterspout)	Door
255	0	5	12	2000	1043	5 WNW St. Nazianz	Manitowoc
256	0	7	13	2000	1455	1.5 NE Forestville	Door
257	0	7	20	2000	1258	2 W Sister Bay (waterspout)	Door
258	0	7	27	2000	1907-1910	1.5 W - 1.1 WSW Harmony	Marinette
259	0	7	27	2000	1930	1.7 W Peshtigo	Marinette
260	0	8	14	2000	1910	Lake Tomahawk	Oneida
261	0	4	23	2001	1326-1346	12 NW - 9 NW Sturgeon Bay (waterspout)	Door
262	1	5	1	2001	2055-2100	0.4 NNE - NE Minocqua	Oneida
263	0	9	6	2001	1809-1814	0.3 SSW – 1.3 NNE Pelican Lake	Oneida
264	0	4	18	2002	1549	2 W Bradley	Lincoln
265	0	4	18	2002	1557	6 SW Woodboro	Oneida
266	0	4	18	2002	1633	4 E Rhinelander	Oneida
267	1	4	18	2002	1813-1827	3 SE Stratford - 6 NW Mosinee	Marathon
268	0	4	18	2002	1832	6 SSW Wausau Airport	Marathon
269	0	5	6	2002	1630-1640	5 NW - 2.5 N Winneconne	Winnebago
270	0	5	6	2002	1702	8 N Oshkosh - Wittman Field	Winnebago
271	0	7	30	2002	1747-1750	10.5- 9.5 NW Merrill	Lincoln

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GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
272	0	7	30	2002	1808-1828	5 N - 9.5 NE Merrill	Lincoln
273	0	7	30	2002	1822	3 W - 0.8 W Central Wisconsin Airport	Marathon
274	0	7	30	2002	1825	8.5 NE Merrill	Lincoln
275	0	9	2	2002	1704-1706	5.2 W - 5 W Athens	Marathon
276	1	9	2	2002	1735-1743	6 NW Wausau - 4 NE Wausau	Marathon
277	1	9	30	2002	1810-1811	5.5 SSE - 5.5 SE Spread Eagle	Florence
278	2	9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	Lincoln
279	0	6	8	2003	1140	4 W Oshkosh - Wittman Field	Winnebago
280	0	6	8	2003	1220-1226	5 E - 5.5 ESE Oshkosh Wittman Field (waterspout)	Winnebago
281	0	6	8	2003	1242-1246	4.3 W – 4.1 WSW Brothertown (waterspout)	Winnebago
282	0	6	8	2003	1259-1302	4 S - 4.1 S Marshfield Airport	Wood
283	1	8	3	2003	1359-1403	0.3 W - 0.2 ENE Potter	Calumet
284	0	5	23	2004	0547	2.7 E Reedsville	Manitowoc
285	1	6	23	2004	1846-1848	3 NNW Almond - 3 NNE Almond	Portage
286	0	6	23	2004	1847	Whiting	Portage
287	1	6	23	2004	1853-1856	3 SE Blaine - 5 ESE Blaine	Portage
288	2	6	23	2004	1856-1906	9 W Waupaca to 2 SW Lind Center	Waupaca
289	1	6	23	2004	2000-2008	Little Chute - Kaukauna	Outagamie
290	0	6	23	2004	2027	Green Bay - northwest	Brown
291	0	7	11	2004	1442-1445	8 SW Harshaw	Oneida
292	0	7	11	2004	1543	1 W Goodnow	Oneida
293	0	7	11	2004	1545	Irma	Lincoln
294	0	7	11	2004	1613	6 W Tomahawk	Lincoln
295	0	7	11	2004	1613	6 W Tomahawk	Lincoln
296	0	7	11	2004	1640	4 W Tomahawk	Lincoln
297	1	7	13	2004	1440-1452	1.4 NW Clark Mills to 2.8 SE Clark Mills	Manitowoc
298	0	5	6	2005	1524-1525	7 ESE - 7.8 ESE Oshkosh Wittman Field	Winnebago
299	0	5	6	2005	1525-1529	5 WSW - 3.7 SW Brothertown	Calumet
300	0	6	4	2005	1354	1 E - 1.1 ENE Auroraville	Waushara
301	0	6	4	2005	1405	2 NW Borth	Waushara
302	0	6	4	2005	1527	4 W - 4.5 WNW Edgar	Marathon
303	0	6	4	2005	1539-1542	1 W - 1.5 NW Athens	Marathon
304	0	6	4	2005	1706	4 S Athens	Marathon
305	0	6	4	2005	1720	3 W Marathon	Marathon
306	0	6	4	2005	1730	5 E Kewaunee (waterspout)	Kewaunee
307	0	6	4	2005	1918	7 S Hogarty	Marathon
308	0	6	9	2005	1740-1750	5 SE - 5 E Oshkosh	Winnebago
309	0	6	9	2005	1814	4 NW Stockbridge	Calumet
310	0	6	10	2005	1303	4 W Mosinee	Marathon
311	0	6	10	2005	1505	1 N Winneconne	Winnebago
312	0	6	10	2005	1510	2 W Clintonville	Waupaca
313	0	6	10	2005	1910	4 ESE Oshkosh	Winnebago
314	0	6	10	2005	1922	3 E Oshkosh	Winnebago
315	0	6	10	2005	1948	3 E Oshkosh	Winnebago

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EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
316	0	6	13	2005	1449-1450	4.1 NNE - 4 NNE Black Creek	Outagamie
317	0	8	18	2005	1732	6 WSW - 3.7 SW Wautoma	Waushara
318	0	8	18	2005	1838-1841	4 SSW to 3.4 SW New London	Waupaca
319	0	8	18	2005	1840-1848	4.5 W - 2.6 NW Neenah	Winnebago
320	1	8	18	2005	1945-1949	6 ENE - 6.8 ENE Wrightstown	Brown
321	1	8	18	2005	2035	6.5 SSW - 5.7 S Manitowoc	Manitowoc
322	0	9	13	2005	1709-1712	De Pere to Allouez	Brown
323	0	6	18	2006	1643	3 NW Sister Bay	Door
324	0	6	24	2006	1614-1615	4 W Sherwood	Calumet
325	0	9	29	2006	0920-0955	Chambers Is. - 12 SE Cedar River (waterspout)	Door
326	0	6	3	2007	1811	1.6 ESE Shawano	Shawano
327	2	6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	Marathon
328	0	6	7	2007	1526	2.2 W - 2.1 W Wisconsin Rapids Airport	Wood
329	3	6	7	2007	1531-1618	2 ENE Mattoon - 9.5 ENE Lakewood	Shawano-Langlade-Oconto
330	1	6	7	2007	1637-1640	0.5 W -2.5 ENE Cedarville	Marinette
331	1	6	7	2007	1716-1720	3.5 W Harmony to 1.2 N Harmony	Marinette
332	0	6	20	2007	1606	6 NW Ellison Bay (waterspout)	Door
333	0	5	25	2008	2000-2001	3 ENE Knowlton	Marathon
334	1	7	19	2008	2144-2145	3.8 WNW to 3.4 WNW Menasha	Winnebago
335	0	7	29	2008	1527	3.6 NW Granite Heights	Marathon
336	0	7	29	2008	1559-1600	6.3 NNW of Kalinke	Marathon
337	0	7	29	2008	1744-1749	4.2 SE Nasonville to 4.7 WNW Bethel	Wood
338	1	5	4	2010	1810-1812	2.7 SE Zittau to 2.7 W Winchester	Winnebago
339	0	5	4	2010	1813-1817	2.2 SW Winchester to 0.8 NNW Larsen	Winnebago
340	0	7	14	2010	1618-1619	2.5 WSW Veedum – 2.2 WSW Veedum	Wood
341	1	8	20	2010	1520-1522	2 SE- 2.7 ESE Greenleaf	Brown
342	3	4	10	2011	1708-1741	2 N Hamburg – 1 SW Bloomville	Marathon - Lincoln
343	1	4	10	2011	1735-1742	2 NW Coloma – 4 ESE Hancock	Adams - Waushara
344	1	4	10	2011	1750-1758	5 S Parrish	Langlade
345	1	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	Waushara- Waupaca - Outagamie
346	2	4	10	2011	1830-1846	3 SE Argonne – 6 SE Long Lake	Forest - Florence
347	1	4	10	2011	1853-1904	0.3 NW Poy Sippi – 2.3 WSW Winchester	Waushara - Winnebago
348	1	4	10	2011	1903-1908	4.2 WNW - 3.2 N Armstrong Creek	Forest
349	2	4	10	2011	1943-1946	1.2 SW Kaukauna - 0.3 S Little Chute	Outagamie
350	1	4	10	2011	1953-1955	1.2 NNE Askeaton - 1.4 S Greenleaf	Brown
351	1	4	10	2011	1959-2001	1.6 NW Quinney - 1.5 SSE Stockbridge	Calumet
352	0	5	22	2011	1805	5 NE Algoma (waterspout)	Kewaunee
353	1	5	22	2011	1703-1720	5.5 SSE Cranmoor - 4.8 SE Arnott	Wood - Portage
354	1	8	19	2011	1545-1556	2.9 NW - 5.2 ESE Wausaukee	Marinette
355	0	8	23	2011	1658	0.3 NW Arpin	Wood
356	0	8	23	2011	1756-1757	0.9 - 1.1 SE Briarton	Shawano
357	0	8	23	2011	2005-2006	0.8 ENE - 1.3 E Sherwood	Calumet
358	0	5	24	2012	1801-1807	3.7 SSE - 4.8 ENE Marathon	Marathon
359	0	8	9	2012	1210-1220	6 S Kewaunee	Kewaunee

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#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
360	0	8	9	2012	1225-1235	6 S Kewaunee	Kewaunee
361	0	9	18	2012	1701	3 W Sister Bay	Door
362	0	7	9	2013	1359-1404	0.5 NE Schultz - 3.9 W Bloomville	Lincoln
363	0	7	9	2013	1432-1456	10.8 S Parrish - 3.1 W Deerbrook	Langlade
364	0	7	9	2013	1644-1645	4.2 S Bancroft	Portage
365	0	7	9	2013	1850-1854	4.4 NNE Oconto to 5.2 NNE Oconto	Oconto
366	1	8	6	2013	2322-2333	4 NNE Partridge - 0.8 WSW Hortonville	Waupaca, Outagamie
367	2	8	6	2013	2324-2333	1.2 W New London - 0.4 WSW Greenville	Waupaca, Outagamie
368	1	8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	Outagamie, Brown
369	1	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	Outagamie, Brown, Calumet
370	1	8	6	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larrabee	Outagamie, Brown, Manitowoc
371	1	8	7	2013	0005-0010	0.5 SSE Henrysville - 1 NE Stangelville	Brown, Calumet, Kewaunee
372	0	7	27	2014	1805	3.5 SE Oshkosh Wittman Field (waterspout)	Winnebago
373	0	8	18	2014	1523-1525	3.3 NE Winchester - 4.0 NNE Larsen	Winnebago
374	0	5	17	2015	1431-1440	1.6 WSW Morgan - 3.4 NE Morgan	Shawano
375	0	6	15	2015	1409-1410	1.5 NNW Glenmore - 1.4 NNW Glenmore	Brown
376	1	7	6	2015	1538-1540	3.4 W Marion – 2.7 W Marion	Waupaca
377	0	7	6	2015	1603-1604	1.1 E Pella Airport	Shawano
378	0	7	6	2015	1656-1703	2.2 ENE – Gillette – 2.6 SSW Kelly Brook	Oconto

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Event 1: June 25, 1950

The F/EF-4 tornado touched down one mile west of Woodboro in Oneida County around 9 pm CST and travelled 13.1 miles to five miles northeast of Rhinelander. The tornado reached a maximum width of 880 yards. Two deaths were reported in Oneida County.

Event 2: June 25, 1950

The F/EF-2 tornado touched down 3 miles west of Colby in Marathon County and travelled to three miles northeast of Abbotsford around 9 pm CST. There was no additional information on this tornado. The tornado travelled approximately 3 miles with a maximum width of 20 yards.

Event 3: September 18, 1950

The F/EF-3 tornado touched down in Waupaca County two miles north of Waupaca around 2:30 pm CST. The tornado travelled to Weyauwega before dissipating. Storm data was not available at this time and I could not find any additional newspaper articles on this tornado event.

Event 4: September 26, 1951

The F/EF-4 tornado touched down 9 miles south southwest of Amherst in Portage County around 3:45 pm CST. The tornado then cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado travelled 22.3 miles and reached a maximum width of 400 yards before dissipating two miles southwest of Bear Creek in Waupaca County around 408 pm CST. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

Event 5: June 20, 1953

A brief F/EF-1 tornado touched down in Three Lakes in Oneida County around 6 pm CST. The tornado was 100 yards wide and travelled two miles before dissipating. Trees and power lines were downed along with some damage to summer homes.

Event 6: April 15, 1954

The F/EF-2 tornado struck around 3 pm CST two miles northeast of Neshkoro in Waushara County. The tornado travelled approximately six miles and reached a maximum width of 30 yards before dissipating at Redgranite. Widespread damage was reported at Redgranite, Lohrville and Spring Lake. Numerous small buildings and trees were damaged. The greatest single property damage occurred at the St. Marks Catholic Church in Redgranite. The frame structure was badly shaken by the storm, resulting in jammed doors and dislodged staircases and shattered walls. In the Spring Lake-Lohrville area, the greatest damage was in the town of Marion where a large barn was leveled. The wind scattered the tin roof for hundreds of yards in several directions.

Event 7: June 20, 1954

The F/EF-2 tornado developed around 2:30 am CST in Rothschild in Marathon County. The tornado travelled approximately 6.3 miles and dissipated six miles northeast of Mosinee around 2:40 am CST. The maximum width of the tornado was 70 yards. Another tornado was reported in Brothertown in Calumet County around 4 am CST.

Event 8: June 20, 1954

The F/EF-2 tornado developed around 4 am CST in Brothertown in Calumet County. The tornado travelled one mile and had a maximum width of less than 50 yards.

Event 9: May 3, 1955

The F/EF-1 tornado touched down in Irma, approximately 9 miles north of Merrill, in Lincoln County around 6 p m CST. The tornado travelled 7 miles and had a maximum width less than 50 yards. Lincoln County Sheriff Alfred Giese stated in the Rhinelander Daily News that a tornado ripped through several farms and wooded lot country about 9 miles north of Merrill. Giese stated that three barns were blown down and that communications between Merrill and the State Traffic Patrol Headquarters in Tomahawk was disrupted for a while. Two people were trapped in the wreckage and were freed by sheriff officers and highway crews. No homes were damaged.

Event 10: May 28, 1955

The F/EF-1 tornado touched down 3 miles west of Clintonville in Waupaca County around 3:05 pm CST. The tornado travelled 2.7 miles and reached a maximum width of 75 yards before dissipating. The tornado ripped through a farm injuring two persons, and knocking down trees and utility poles. Robert Malaueg, 13, and Leroy Ashauer, 23, were hurt and taken to Clintonville Community Hospital.

Event 11: April 3, 1956

A strong spring storm killed 43 people nationwide, including eight in Wisconsin on this date. The F/EF-2 tornado developed 3 miles south of Bancroft in Portage County around 12:50 pm CST. The tornado travelled 18.2 miles to two miles northwest of Amherst before dissipating. The tornado reached a maximum width of 100 yards. Two fatalities were reported in Portage County.

Event 12: April 3, 1956

Unseasonably warm air ahead of a strong cold front triggered showers and thunderstorms across the state. The F/EF-4 tornado developed near Berlin in Green Lake County around 1:45 pm CST and travelled 11.5 miles across rural areas of southeast Waushara County near the town of Aurora; then dissipated around 1:53 pm CST two miles west of Omro in Winnebago County. The tornado was 440 yards wide. Berlin was hit the hardest with six killed and 50 injured. Severe storms killed eight people across the state on this day.

Event 13: April 6, 1956

The F/EF-2 tornado developed near Ogdensburg in Waupaca County around 1:45 pm CST. The tornado travelled 7 miles to Symco before dissipating around 1:53 pm CST. The tornado reached a maximum width of 100 yards.

Event 14: July 1, 1956

The F/EF-2 tornado developed 5 miles east of Maplewood in Door County and travelled 11 miles to four miles southeast of Institute around 12:05 pm CST. The tornado had a maximum width of 50 yards.

Event 15: April 19, 1957

The F/EF-2 tornado developed 3 miles west of Wautoma in Waushara County around 4 pm CST. The tornado travelled nearly 23 miles and reached a maximum width of 50 yards before dissipating two miles northwest of West Bloomfield around 4:15 pm CST. No fatalities were reported at a farm house that was leveled in rural Wild Rose. The farm of Reuben Anderson, Route 2 Wild Rose was the principal destruction point in Waushara County. The tornado destroyed a 34 by 56 foot barn, a 10 by 30 foot wood silo, a chicken coop, a milk house and wood shed.

Event 16: April 19, 1957

The F/EF-1 tornado touched down in Coddington, 12 miles southwest of Bancroft, in Portage County around 4 pm CST. The tornado travelled about 12 miles and reached a maximum width of less than 50 yards before dissipating in Bancroft.

Event 17: June 14, 1957

The F/EF-1 tornado touched down at Florence in Florence County around 5:30 pm CST. The tornado travelled approximately 8 miles and reached a maximum width of 100 yards before dissipating.

Event 18: July 11, 1957

The F/EF-1 tornado touched down 4 miles southwest of Denmark in Brown County around 1:45 pm CST. There was no documentation on the path width or distance travelled. A tornado also touched down in Manitowoc County fifteen minutes later.

Event 19: July 11, 1957

The F/EF-1 tornado was first reported to touch down two and a half miles southeast of White Law in Manitowoc County around 2 pm CST. The tornado struck the Bernard Vogel farm, picking up 9 trees thirty feet high and pounded them into the ground. The tornado also broke windows and gouged the side of the house. A female neighbor of Bernard Vogel, who was seeking shelter, was pinned up to the wall of a silo as she was running towards the house.

Event 20: May 17, 1958

The F/EF-2 tornado developed 3 miles west of Wausaukee in Marinette County around 3:40 pm CST and travelled northeast for 4.7 miles before dissipating 2 miles northeast of Wausaukee. The tornado reached a maximum width of 80 yards.

Event 21: June 4, 1958

According to several sources, it appears that there was a long tracked F/EF-3 tornado that developed 6 miles southeast of Chippewa Falls in Chippewa County around 7:30 pm CST. The tornado then moved to the east northeast for just over 59 miles before dissipating 2 miles northwest of Athens in Marathon County around 8:06 pm CST. The tornado reached a maximum width of 880 yards. Newspaper accounts indicated there were three separate tornadoes during this event. The tornado or tornadoes killed 28 people across western Wisconsin. Four people died in Chippewa Falls and near Menominie while two deaths were reported Knapp and Boyd in western Wisconsin.

Event 22: June 30, 1958

A brief F/EF-2 tornado touched down around 5:30 pm CST one mile northwest of Gleason in Lincoln County. The tornado travelled approximately 2 miles and reached a maximum width of 50 yards. According to the Rhinelander Daily News, the United States Weather Bureau stated a Northwest Orient Airlines plane and an Antigo radar station both reported radar echoes with the dangling hooks characteristic of tornado clouds.

Event 23: August 30, 1958

The F/EF-1 tornado was reported 6 miles southeast of Wausaukee in Marinette County around 3:26 pm CST. The tornado was 100 yards wide and travelled a mile before dissipating.

Event 24: May 4, 1959

The F/EF-1 tornado was reported to touch down near Wausau in Marathon County around 10:30 am CST. The tornado was 200 yards wide and travelled a mile before dissipating near Wausau.

Event 25: May 4, 1959

The F/EF-1 tornado struck Deerbrook in Langlade County around 11:45 am CST. The tornado was 100 yards wide and was on the ground for a mile.

Event 26: May 6, 1959

The F/EF-2 tornado developed near Symco in Waupaca County and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 27: May 6, 1959

The F/EF-2 tornado touched down 3 miles northeast of Shiocton and travelled nearly 2 miles before dissipating around 1:30 pm CST in Outagamie County. The tornado reached a maximum width of 200 yards. The tornado flattened a barn on the farm of Mrs. Matilda Gehring. Numerous trees were damaged in a nearby wooded lot while a shed on a nearby farm sustained damage.

Event 28: May 10, 1959

The F/EF-2 tornado touched down in Ashwaubenon in Brown County around 8:50 pm CST and travelled northeast for approximately four miles into Preble and the city of Green Bay before dissipating at 8:55 pm CST. The maximum diameter of the tornado was less than 50 yards wide. One of the most severely damaged buildings in the Sunday night tornado was a year old home moved nearly off its foundation in Ashwaubenon. Five members of the Julius Alberts family were inside the house when the tornado hit, escaped injury. The garage disappeared from the neighborhood and the car inside was twisted around and dumped in a field behind the house. Six homes were demolished and at least 50 others suffered heavy damage. Three injuries were noted with the tornado.

Event 29: May 28, 1959

The F/EF-1 tornado struck 6 miles north of Oshkosh in Winnebago County around 3:15 pm CST. The tornado travelled nine miles before dissipating 9 miles northeast of Oshkosh.

Event 30: May 28, 1959

The F/EF-1 tornado was spotted one mile southwest of Greenleaf in Brown County around 3:38 pm CST.

Event 31: May 28, 1959

The F/EF-0 tornado touched down 6 miles southwest of De Pere in Brown County around 3:30 pm CST.

Event 32: June 10, 1959

The F/EF-1 tornado touched down near De Pere in Brown County around 1:20 pm CST. The tornado travelled about a mile and was less than twenty yards wide.

Event 33: July 8, 1959

The F/EF-2 tornado touched down in Niagara in Marinette County around 4:54 pm CST. The tornado travelled approximately one mile and had a maximum width of 50 yards. The tornado downed trees, flattened a garage, tore the roof off a house, bounced an automobile off a house, and hit a tavern. There were three injuries when the twister picked up their trailer home and dumped it 100 feet away.

Event 34: August 28, 1959

Several funnel clouds were reported near the Outagamie County Airport by a pilot, and several other funnel clouds were noted by the Kimberly, Little Chute and Kaukauna police. The F/EF-2 tornado touched down about 3 miles north of Appleton around 2:04 pm CST. The tornado travelled approximately a mile before dissipating and had a maximum width of 35 yards.

Event 35: April 24, 1960

The F/EF-1 tornado touched down 7 miles southwest of Valders in Manitowoc County around 4 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 36: May 21, 1960

The F/EF-1 tornado touched down fifteen miles west of Oshkosh in Winnebago County around 5:30 pm CST.

Event 37: November 15, 1960

The F/EF-2 tornado developed near Chili in southeast Clark County. The tornado travelled for 36 miles into central Marathon County around 2:25 pm CST where the tornado dissipated near Rib Mountain. The tornado reached a maximum width of 100 yards. Main damage with the storm occurred near Chili and near the Town of Rib Mountain.

Event 38: September 3, 1961

The F/EF-2 tornado touched down near Fenwood in Marathon County around 12:10 am CST and travelled about 2 miles. The tornado was 35 yards wide. Damage was confined to farm buildings and crops in rural western Marathon County.

Event 39: September 3, 1961

The F/EF-1 tornado touched down near Athens in Marathon County around 1 am CST. The tornado was 35 yards wide and was on the ground for 2 miles.

Event 40: September 3, 1961

The F/EF-1 tornado touched down 12 miles west of Merrill in Lincoln County around 5 pm CST. The tornado was 50 yards wide and was on the ground for a mile.

Event 41: June 23, 1962

The F/EF-1 tornado touched down 2 miles west of Champion in eastern Brown County around 4:30 pm CST. According to the local storm report for June of 1962, the tornado became or originated as a waterspout near Point Sauble as the storm was picking up water at times. The tornado/waterspout had a maximum width of less than 50 yards and travelled 3 miles before dissipating at 4:35 pm CST.

Event 42: June 23, 1962

The F/EF-0 tornado touched down 15 miles east of Stevens Point in Portage County around 7 pm CST.

Event 43: July 24, 1962

The F/EF-2 tornado touched down briefly in the town of Corning in Lincoln County around 5 pm CST. The tornado travelled about a mile and had a maximum width of 50 yards. The tornado destroyed a barn and other buildings in the town of Corning.

Event 44: September 19, 1963

The F/EF-1 tornado tore through the village of Laona in Forest County around 6 pm CST. The tornado was less than 50 yards wide and travelled one mile before dissipating.

Event 45: May 4, 1964

The F/EF-1 tornado was first reported 10 miles southwest of St. Germain in Vilas County around 6 pm CST. The tornado travelled just over 7 miles before dissipating near St. Germain at 6:10 pm CST. The tornado had a maximum width of 125 yards. The local storm report indicated the tornado touched down twice and crossed over the Big St. Germain drawing water to a height of 200 feet. There was considerable damage to resorts and woods in the path of the tornado.

Event 46: May 7, 1964

The F/EF-2 tornado touched down in the city of Wisconsin Rapids in Wood County around 6 pm CST and travelled a half mile. The maximum width of the tornado was 100 yards. The tornado tore through the Suburban Heights trailer court. There were fourteen injuries, none of them serious. Ten of the trailer homes were ripped from their foundation and tossed up into the air. The body of one was torn off and the frame was left lying upside down 100 yards from its original base. Many of the trailers were occupied by the Wisconsin Rapids Twins ballplayers and their wives. Some damage to roofs and television antennas was reported within the city limits.

Event 47: May 8, 1964

Several tornadoes were noted across the state on this date. In north central and northeast Wisconsin, the F/EF-2 tornado touched down from about five miles north of Iola in Waupaca County around 5 pm CST. The tornado travelled a little over 3 miles to one mile west of Clintonville. The tornado had a maximum width of 200 yards. At least five barns were reported down in the Clintonville area. Another tornado was noted across Marathon County from seven miles east southeast of Knowlton to five miles west of Elderon around 5:50 pm CST.

Event 48: May 8, 1964

The F/EF-2 tornado touched down 7 miles east southeast of Knowlton in Marathon County around 5:50 pm CST. The tornado travelled about twelve miles to 5 miles west of Elderon. The tornado had a maximum width of five hundred yards.

Event 49: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 50: May 30, 1964

The F/EF-0 tornado momentarily touched down in a field northeast of Bellevue in Brown County around 1:28 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 51: June 9, 1964

The F/EF-1 tornado was sighted in Belle Plaine in Shawano County around 2:55 pm CST. The Adams Beach area was hit the hardest according to newspaper reports.

Event 52: June 9, 1964

The F/EF-2 tornado touched down near Pound in Marinette County around 3 pm CST. The tornado travelled approximately 3 miles and had a maximum width of 50 yards.

Event 53: August 22, 1964

The F/EF-2 tornado touched down six miles west of Bancroft and travelled approximately 7 miles to the town of Grant around 3 pm CST in Portage County. The tornado had a maximum width of 300 yards.

Event 54: July 8, 1965

The F/EF-2 tornado touched down one mile west of Sherwood in Calumet County and travelled approximately 3 miles to the northeast before dissipating one mile north of Sherwood around 5 pm CST. The tornado was 100 yards wide. The twister, striking in a narrow path northeast from High Cliff Park broke trees, power and telephone poles, and leveled a barn at the farm of Mrs. Anna Goaz at Route 1 in Menasha. Several other farm properties were damaged. Two teenage girls received multiple cuts and bruises when they were picked up by the twister and thrown down on a road in the High Cliff Beach area.

Event 55: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. The tornado was 50 yards wide. Another F/EF-2 tornado was reported near Suring around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 56: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado was reported near Suring around 7 pm CST. The tornado was 50 yards wide and travelled for 2 miles before dissipating. Another F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 57: July 10, 1966

The F/EF-1 tornado was first reported to touch down in Plainfield in Waushara County around 10 pm CST. The tornado was 100 yards wide and travelled approximately fifteen and a half miles before dissipating at Wautoma.

Event 58: July 25, 1966:

The F/EF-0 tornado touched down about a half mile east of Maplewood in Door County around 6:20 pm CST. The tornado was 20 yards wide and travelled approximately two miles. An interesting note to the local storm report from July 1966 indicated a strong waterspout was noted over the Bay of Green Bay. According to the local storm report, a waterspout lifted several boats out of the water dropping one on a car at Ephraim. It also dropped twelve large trees down at Gordon Lodge. This tornado/waterspout was not documented in this study.

Event 59: March 31, 1967

The F/EF-2 tornado touched down in Marshfield in Wood County around 11:49 pm CST. The tornado travelled approximately two miles and had a maximum with of 35 yards. The tornado destroyed or damaged several buildings including a mobile home plant.

Event 60: June 30, 1967

The F/EF-2 tornado struck Chilton in Calumet County around 11:49 pm CST. The tornado then travelled to 7 miles east of Chilton before dissipating around 11:59 pm CST. The maximum width of the tornado was 100 yards. The city of Chilton took the brunt of the damage. At least five buildings were destroyed beyond repair. A trailer home tumbled end over end across a lot and a good share of trees were torn up.

Event 61: July 1, 1967

The F/EF-1 tornado struck 3 miles east of Kiel in Manitowoc County around 12:45 am CST. The tornado was 50 yards wide and travelled a half mile before dissipating.

Event 62: July 2, 1967

The city of Brillion in Calumet County was struck by an F/EF-1 tornado around 2 pm CST. The local storm report indicated a touchdown in the city of Brillion. The tornado was 35 yards wide and travelled a mile before dissipating.

Event 63: July 22, 1967

The F/EF-2 tornado developed around 11 pm CST near Loyal in Clark County. The tornado then moved east southeast into Wood County. The tornado travelled nearly 21 miles before dissipating five miles east of Marshfield around 11:18 pm CST. The maximum width of the tornado was 100 yards. The tornado destroyed three barns and killed sixteen cattle near Loyal in Clark County. Several buildings and mobile homes were destroyed at Marshfield in Wood County.

Event 64: June 30, 1968

The F/EF-2 tornado touched down 3 miles northwest of Cavour in Forest County around 4 am CST. The tornado travelled east northeast approximately one mile and had a maximum width of 200 yards. Several buildings were damaged at Aschenbrenner Farm near Cavour.

Event 65: June 30, 1968

The F/EF-1 tornado touched down on the Zern property 3 miles south of Pembine in Marinette County around 4:45 am CST. The tornado was 100 yards wide and travelled on the ground for a half mile. Trees and a garage were destroyed by the tornado.

Event 66: August 5, 1968

The F/EF-1 tornado touched down 3 miles northwest of Seymour in Outagamie County around 2 pm CST. The tornado was 150 yards wide and was on the ground for two miles before dissipating. Nine barns and farm buildings were destroyed.

Event 67: August 16, 1968

The F/EF-2 tornado touched down near Kaukauna in Outagamie County and travelled 2 miles before dissipating around 12:30 pm CST. The maximum width of the tornado was 100 yards. The Mueleman farm near Kaukauna experienced severe damage. A barn was destroyed along with many trees. His home also suffered damage as the roof was torn off and windows were knocked out.

Event 68: August 16, 1968

The F/EF-2 tornado first formed about 5 miles southeast of Hofa Park in extreme western Brown County on the Brown - Shawano County line. The tornado moved east about a mile and dissipated four miles south of Pulaski around 9:20 pm CST. The tornado reached a maximum width of 100 yards. A 40 year old dance hall on Highway 29 at the Shawano - Brown County line was destroyed. The building exploded and debris was scattered over nearby fields. The 73 year old owner was hospitalized.

Event 69: August 19, 1968

The funnel was first observed at about 4 pm CST near Breed, but remained aloft until three miles southwest of Pound in Marinette County. The F/EF-4 tornado developed 3 miles southwest of Pound around 4:10 pm CST and travelled nearly 22 miles before dissipating in Marinette. The tornado moved east about 3 miles south of Highway 53, destroying farms near Pound and again just south of Marinette. Large hail three inches in diameter fell north of the tornado track. Two elderly brothers, John and Cecil Maloney were fatally injured as their farmhouse near Pound blew apart. A third brother James, who was in bed when the winds struck was found on some bed springs in a nearby cornfield. He was hospitalized in satisfactory condition. Two more people were injured at Marinette when the tornado struck near the airport. Nearly twenty counties were included in a series of thunderstorm warnings issued by the Weather Bureau.

Event 70: August 19, 1968

The F/EF-2 tornado form about 4 miles east of Fenwood in Marathon County near County Trunk P just west of Highway 97 around 5:30 pm CST. The tornado travelled just over fourteen miles to the east before dissipating about eleven miles east of Fenwood. The maximum width of the tornado was 75 yards. Twenty-five barns mostly on the north side of County Trunk P were flattened. Damage was estimated at more than one million dollars.

Event 71: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, and Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 72: June 26, 1969

According to the local storm report, the F/EF-1 tornado skipped northeast through the forests of Price, southeast Iron and western Vilas Counties. The tornado struck Vilas County from 2 miles west of Manitowish Waters around 4:30 pm CST and moved to three miles southwest of Presque Isle. Most of the damage occurred around Manitowish Waters.

Event 73: June 26, 1969

The F/EF-2 tornado formed near Lac Du Flambeau in Vilas County around 5 pm CST and skipped northeast for nearly 29 miles. The tornado dissipated along the Michigan border 9 miles northwest of Land O' Lakes. Maximum width of the tornado was 35 yards. Resort areas from Fence Lake northeastward across Big Crooked and High Lakes suffered damage.

Event 74: June 26, 1969

The F/EF-1 tornado travelled 22 miles across Clark, Taylor and Lincoln Counties. The tornado did major damage from the Withee area in northern Clark County around 4:10 pm CST. Two persons were injured and about ten farms sustained damage. Major damage from the tornado was reported at the Taylor County Airport near Medford around 4:30 pm CST. Seven planes and one hangar suffered severe damage. The tornado entered western Lincoln County and travelled to near Pelican Lake around 5 pm CST before dissipating. Five more farms suffered serious damage in northeast Lincoln County. Tree and wire damage termed "worst ever" by utilities in the northern resort areas.

Event 75: July 2, 1969

The F/EF-0 tornado touched down in Symco in Waupaca County around 4 pm CST. The tornado was 100 yards wide and travelled 4.3 miles before dissipating. The tornado produced extensive damage to buildings on the Howard Winter farm between Manawa and Big Falls. Utility wires were also damaged along Highway 22 near Symco.

Event 76: July 2, 1969

The F/EF-1 tornado travelled just over 7 miles across Kewaunee County, from 3 miles southwest of Luxemburg through the Ellisville area around 4:20 pm CST. The tornado had a maximum width of 100 yards. Several farms were damaged by the tornado.

Event 77: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 8:40 pm CST in Ashwaubenon and moved northeast about four miles to the north side of Green Bay. Maximum width of the tornado was 800 yards. Much of the damage was concentrated in the Lambeau Field area. Among the most seriously damaged businesses were the Midway Motor Lodge motel and the nearby Forum Supper Club as well as property at Nanco Corporation. There were reports of damage to tunnels connecting the Brown County Arena to an annex. Several cars in the area parking lot were damaged by flying debris. Roofs of a number of houses were damaged and garages and barns were reported destroyed. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 78: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST in De Pere and travelled northeast for 7 miles through Allouez and then into the southeast side of Green Bay. The maximum width of the tornado was 800 yards. A church steeple was toppled in De Pere. Damage was reported at a lumber yard and canning company at Baird and Main Streets in Green Bay. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 79: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST one mile north of Casco in Kewaunee County. The tornado moved northeast for 11 miles before dissipating near Rio Creek in southern Door County around 9:10 pm CST. The tornado reached a maximum width of 500 yards. Fifteen barns near Casco and Rio Creek were destroyed. Two persons were injured when their house trailer was upended south of Forestville. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 80: April 22, 1970

Several tornadoes were reported across north central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST seven miles southeast of Maplewood in Door County. This may be the same tornado that tore through eastern Kewaunee County from Algoma to 6 miles northeast of Algoma. The tornado travelled about four miles and reached 500 yards in width in Door County before dissipating.

Event 81: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST from Algoma to 6 miles northeast of Algoma in Kewaunee County. The tornado travelled about five miles and reached a maximum width of 500 yards. Extensive damage was reported near Algoma northeast along the Lake Michigan shoreline. Among the buildings destroyed were a warehouse and a church steeple. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 82: April 22, 1970

The F/EF-2 tornado developed 2 miles northeast of Poland in extreme eastern Brown County around 9:10 pm CST. The tornado was 500 yards wide and travelled just over 7 miles to near Luxemburg in Kewaunee County before dissipating. Several farms were damaged and leveled the Kewaunee County Fair Grandstand at Luxemburg.

Event 83: May 21, 1970:

An airplane pilot reported the F/EF-0 tornado just northeast of Green Bay along the shores of the bay of Green Bay in Brown County around 8:10 pm CST. The tornado became a waterspout about four miles northeast of Green Bay. The tornado/waterspout was less than 50 yards wide and was on the ground for about two miles

Event 84: June 17, 1970

The F/EF-0 touched down briefly 3 miles south of Wisconsin Rapids in Wood County around 6:35 pm CST. The tornado was 100 yards wide and only travelled a tenth of a mile. According to the monthly storm report, the tornado touched down in open country.

Event 85: July 7, 1970

The F/EF-2 tornado touched down in Bancroft in Portage County around 3 pm CST. The tornado moved east southeast for two miles and reached a maximum width of a hundred yards before dissipating. Damage was confined to a machine shed and tore the roof off a new school.

Event 86: July 7, 1970

The F/EF-1 tornado developed across Iron County in northwest Wisconsin. The tornado travelled east southeastward for nearly 38 miles across Vilas County around 7 pm CST. The tornado travelled from Winchester to Boulder Junction to Conover. Extensive damage to woods and lake property were noted in the path of the tornado.

Event 87: July 14, 1970

The F/EF-1 tornado briefly touched down in Marion in Waupaca County around 12:30 pm CST. The tornado was less than 50 yards wide and travelled approximately a half mile. The tornado ripped a door off a factory, flipping over a car and damaging trucks and signs in Marion.

Event 88: July 14, 1970

The F/EF-1 tornado was reported in Mc Allister in Marinette County around 2 pm CST. The tornado was less than 50 yards wide and travelled a mile. The tornado damaged a home and uprooted several trees.

Event 89: July 30, 1970

A brief tornado touchdown (F/EF-1) occurred 4 miles west of Suamico in Brown County. The tornado was less than 50 yards wide and travelled a mile before dissipating. According to the local storm report, the tornado struck in open country.

Event 90: December 1, 1970

A rare tornado event occurred across north central and northeast Wisconsin on this date. In all, there were four tornadoes on this date, including an F/EF-3. What made this event even more unusual was the time of day with all four tornadoes reported between 7 am and 10:45 am in the morning. The F/EF-1 tornado touched down on the Richard Rutta farm in the town of Hall north of Stevens Point in Portage County. The tornado was 200 yards wide and travelled nearly 3 miles before dissipating.

Event 91: December 1, 1970

Four rare December tornadoes were reported on this date across north-central and northeast Wisconsin. The F/EF-2 tornado touched down in Wood County 12 miles southeast of Marshfield or two miles southeast of Arpin on the Fred Cahler farm around 9 am CST. The tornado travelled 2 miles while reaching a maximum width of 200 yards before dissipating. Several farm buildings were destroyed or damaged on the Fred Cahler farm. The tornadoes on this day are on the only December tornadoes recorded in the NWS Green Bay Service area.

Event 92: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola in Waupaca County. The tornado moved east for 31.9 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 93: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina in Outagamie County. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards wide and travelled 30 miles before dissipating around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

Event 94: April 22, 1971

The F/EF-0 tornado touched down briefly 4 miles southwest of Hilbert in Calumet County around 5:30 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile.

Event 95: May 18, 1971

The F/EF-1 tornado was first sighted northeast of Adams and Friendship in Adams County around 4:40 pm CST. The tornado travelled 15 miles as it moved across Highway 21 and then to Hancock in western Waushara County before dissipating around 5:04 pm CST. The tornado reached a maximum width of 100 yards. After crossing Highway 21, the tornado destroyed two house trailers injuring five people and smashed a barn. In Hancock, a large metal warehouse was severely damaged with sheet metal scattered a half mile downwind.

Event 96: June 6, 1971

The F/EF-1 tornado was reported 5 miles southwest of Oshkosh in Winnebago County around 11:15 pm CST. The tornado was 50 yards wide and travelled nearly 4 miles before it dissipated. The tornado demolished one barn and damaged several others on highway 26 about five miles southwest of Oshkosh.

Event 97: June 13, 1971

The public reported the tornado 8 miles northwest of Oshkosh in Winnebago County around 4:30 pm CST. The F/EF-1 tornado was 50 yards wide and only travelled a quarter of a mile. Many trees were down in small grove eight miles northwest of Oshkosh.

Event 98: June 18, 1971

The F/EF-1 tornado struck about 5 miles west of Marinette in Marinette County, near Highway 64 and Right O Way Road around 1:45 pm CST. The tornado was 100 yards wide and travelled just over four miles before it dissipated. Many trees were uprooted and several resort and farm buildings were damaged.

Event 99: July 8, 1971

The F/EF-1 tornado moved through open country just north of Wisconsin Rapids in Wood County around 2 am CST. The tornado was 75 yards wide and travelled about two miles before it dissipated. One house trailer moved off its foundation while there was damage to trees in the area.

Event 100: July 30, 1971

Numerous waterspouts (F/EF-0) were reported about 4 miles east of Oshkosh in Winnebago County around 7 am CST. The waterspouts formed east of Oshkosh as cold air with large cyclonic vorticity moved over the warm lake according to the monthly storm report.

Event 101: September 28, 1971

A cold front moving through the state triggered scattered thunderstorms across the state. On this date, two long tracked F/EF-3 tornadoes were noted from near Stanley in western Wisconsin to Oconto County. The first tornado touched down 23 miles northeast of Eau Claire just south of Boyd and Stanley in Chippewa County around 2 pm CST. The tornado continued just south of Owen, north of Curtiss and south of Dorchester in Clark County. The tornado then moved into Marathon County south of Athens then weakened over Hamburg before finally dissipating just north of Merrill in Lincoln County around 4:05 pm CST. The tornado reached a maximum width of 300 yards and travelled 75 miles before dissipating. Damage was estimated near two million dollars.

Event 102: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 103: September 28, 1971

The tornado was first sighted across portions of Clark and Taylor Counties. The tornado moved into Lincoln County 19 miles west southwest of Merrill around 2:15 pm CST. The tornado travelled 19 miles and reached a maximum width of 300 yards before dissipating near Merrill. Several farms were damaged or destroyed by the tornado across Clark, Taylor, and Lincoln counties. The storm summary does not indicate where the heaviest damage occurred.

Event 104: August 21, 1972

The F/EF-1 tornado touched down near Goodwin in Manitowoc County around 3:10 pm CST. The tornado was 50 yards wide and travelled approximately 12 miles to Two Rivers. The tornado struck the Van Koevering residence, uprooting five large trees in the yard. Tree and wire damage occurred along Highway 147 one mile south of Mishicot and near Highway 42 and near Shambeau Road near Two Rivers. The tornado moved eastward out over Lake Michigan.

Event 105: September 16, 1972

The F/EF-2 tornado formed 4 miles northwest of Wabeno in Forest County around 4:05 pm CST. The tornado tracked south of Athelstane, north of Wausaukee and into upper Michigan. The track reentered Wisconsin about 2 miles north of McAllister and cross over the Wisconsin Public Service Corporation Grand Rapids Power Dam. The tornado reentered upper Michigan 3 miles southwest of Ingalls around 5:15 pm CST moving across Highway 41 about two miles north of Wallace. The final path length of the tornado was 53 miles with the tornado reaching a maximum width of 200 yards. Several barns were flattened in the Wabeno area, otherwise damage was mainly to woods and overhead wires.

Event 106: March 11, 1973

An early season F/EF-1 struck Calumet County, 2 miles east of Calumetville around 10:30 am CST. The tornado was 50 yards wide and travelled two miles before dissipating.

Event 107: May 9, 1973

The F/EF-1 was reported 2 miles north of Reedsville in Manitowoc County around 3:50 pm CST. The tornado was 50 yards wide and travelled about two miles before dissipating. Several outbuildings were destroyed on the John Zimmerman farm on Highway 32. Damage was also reported on the Sullivan and Fenlon farms.

Event 108: June 3, 1973

The F/EF-1 tornado first touched down just north of Amberg in Marinette County around 6:15 pm CST. The tornado was 100 yards wide and moved four and a half miles across Marinette County before dissipating. The tornado upended several house trailers and destroyed several wooden structures at the Sparkling Springs Campground just north of Amberg. Several acres of trees were leveled at the campsite and northeastward to Assembly of God Church in Beecher Township.

Event 109: June 18, 1973

The F/EF-1 tornado touched down on the Brunke Farm 2 miles west of Athens in Marathon County around 11 am CST. The tornado was 200 yards wide and travelled east for two miles before dissipating.

Event 110: July 12, 1973

The F/EF-1 tornado was struck touchdown just south of Boulder Junction in Vilas County around 3 am CST. The tornado was 100 yards wide and travelled 19.5 miles before dissipating near Sayner in Vilas County. Scattered damage to the woods was reported along the path of the tornado.

Event 111: July 12, 1973

The F/EF-1 tornado touched down in Jacksonport in Door County around 7:30 am CST. The tornado was 100 yards wide and travelled 3 miles. Scattered damage was reported west and south of Jacksonport. As many as six waterspouts were reported by one observer off Jacksonport. A seiche caused a drop of two feet in water level locally about fifteen minutes after passage of the storms.

Event 112: July 12, 1973

The F/EF-1 tornado developed 4 miles west of Freedom in Outagamie County around 8 am CST. The tornado was 100 yards wide and travelled one mile. Farm buildings were destroyed on the Ken Geiger farm 4 miles west of Freedom.

Event 113: April 12, 1974

The F/EF-2 tornado briefly touched down 5 miles west of Athens in Marathon County around 2:05 pm CST. The tornado travelled 2 miles and reached a maximum width of 150 yards before dissipating. One barn was destroyed and wires down. Two horses in the field were rolled over by the tornado.

Event 114: April 12, 1974

The F/EF-2 tornado touched down in Wittenberg in Shawano County around 2:15 pm CST. The tornado travelled nearly 11 miles and reached a maximum width of 150 yards before dissipating near Bowler. Several farms between Wittenberg and Bowler were destroyed. The Wendler farm in the town of Morris and the Watters and Hintz farms in the town of Seneca sustained severe damage. One injury was reported when Mr. Hintz was injured when he was struck by a flying board.

Event 115: April 21, 1974

The F/EF-4 tornado first touched down 5 miles south of Ripon in Fond Du Lac County at about 2:40 pm CST. The tornado destroyed or severely damaged buildings on about 30 farms before approaching southwest Oshkosh at 2:58 pm CST. The tornado lifted 10 minutes later over northwest Oshkosh. The tornado travelled 26 miles and reached a maximum width of 200 yards. At Oshkosh, the tornado damaged 400 homes and business with 33 of the houses completely destroyed. Damage was estimated at 4.2 million dollars. In Oshkosh, thirty-five people were treated for injuries with only ten people injured seriously enough to be hospitalized.

Event 116: April 21, 1974

The F/EF-2 tornado touched down 4 miles north northwest of Crivitz in Marinette County around 3:25 pm CST. The tornado was 200 yards wide and travelled four miles before dissipating.

Event 117: June 9, 1974

The tornado formed in Adams County and then the F/EF-1 tornado moved into southwest Portage County where it touched down briefly on the Sawyer Farm Route 1, Bancroft around 2:45 pm CST. The tornado was 30 yards wide and travelled two and a half miles. The tornado damaged a barn, a chicken coop and a porch on house. Only minor tree damage was noted.

Event 118: June 14, 1974

On the afternoon of June 14th, the F/EF-1 tornado touched down 5 miles northwest of Gillett in Oconto County around 4:10 pm CST. The tornado was 30 yards wide and travelled only a quarter of a mile. The tornado downed trees and power lines and threw a chopper wagon thirty yards.

Event 119: June 12, 1976

The F/EF-2 tornado touched down a mile west of Alban in Portage County around 8:30 pm CST. The tornado only travelled about a quarter of a mile and reached a maximum width of fifty yards. The tornado leveled a mobile home a mile west of Alban.

Event 120: June 12, 1976

The F/EF-1 tornado touched down near Amherst in Portage County around 9 pm CST. The tornado was 50 yards wide and travelled around a quarter of a mile. The Amherst High School roof was ripped off.

Event 121: June 13, 1976

The F/EF-1 tornado formed 4 miles west of Wisconsin Rapids in Wood County around 6:40 pm CST. The tornado continued to move east northeast to three miles northeast of Stevens Point near the intersection of Highway 51 and Business 51 before dissipating around 7:20 pm CST three miles northeast of Stevens Point. The tornado travelled nineteen miles and reached a maximum width of 100 yards. Many trees were flattened. In Stevens Point, scattered damage was reported just north of the city and a roof was blown off an apartment complex. Several other buildings also suffered damage. Two people in the apartment complex were injured from fallen debris.

Event 122: June 13, 1976

The F/EF-2 tornado was observed by the police chief of Plover in Portage County around 7 pm CST. The tornado touched down at the intersection of Highway 54 and County B. The tornado was only on the ground for about a quarter of a mile and had a maximum width of about fifty yards.

Event 123: June 13, 1976

The F/EF-1 tornado hit first about two miles west of Hogarty in Marathon County around 8 pm CST. The tornado skipped along and moved east northeast into extreme southwest Langlade County near Elmhurst and then continued to near Elton before dissipating at 8:10 pm. The tornado was 50 yards wide and travelled 21.3 miles. Some sheds were destroyed while windows of some buildings were damaged. Tree limbs and power lines were downed by the tornado.

Event 124: June 13, 1976

The tornado (F/EF-1) developed near county highway H and Highway 54 about five miles east of Seymour in Outagamie County around 8 pm CST. The tornado was 50 yards wide and travelled a half mile. Three barns were destroyed.

Event 125: June 13, 1976

The F/EF-1 tornado developed just west of Oconto Falls in Oconto County around 8:15 pm CST. The tornado was 50 yards wide and travelled less than a quarter of a mile. The damage from the tornado included: a barn was destroyed, a farm house was damaged, trees and power lines were down and a good portion of an orchard was destroyed.

Event 126: June 13, 1976

The tornado first reached the ground near Highway 64 in extreme southeast Lincoln County around 8:45 pm CST. The tornado then moved into western Langlade County about 3 miles north of Highway 64. The tornado skipped along to near county Highway I about 11 miles northwest of Antigo where it was last reported. The tornado was 50 yards wide and travelled nearly eleven miles. The only report of damage was some downed trees.

Event 127: July 30, 1977

The F/EF-1 tornado initially developed a half mile west of Forest Junction in Brown County around 10:45 pm CST, destroying a rural farm including a large barn, milk house and several small sheds. The tornado was 100 yards and travelled twelve miles before dissipating in Denmark. In Denmark, a roof of an apartment building was blown off, a couple of garages were destroyed and some farm machinery was toppled.

Event 128: August 31, 1977

On the evening of the 31st, a devastating F/EF-3 tornado spun out a 27 mile path of destruction across Marathon County around 6:15 pm CST. The first sighting of the tornado came seven miles southwest of Fenwood. The funnel base was described as reaching tree top levels as it downed barns in the area. The tornado continued to near Marathon City where more barns were destroyed. The tornado caused extensive damage to Ginseng crops in the area. In Rib Mountain, 15 homes were demolished and 30 others were severely damaged. The storm moved into southwest Wausau damaging a mill and lumber yard. As the funnel cloud moved across the southern end of Wausau, brief touchdowns were noted at Grand Avenue and at Tenth and Manson Streets. The funnel lifted and moved eastward out of the city limits of Wausau, touching down for a final time on Linden Street. Barns and sheds were destroyed on Linden. The tornado reached a maximum width of a thousand yards. Property damage was close to two million dollars.

Event 129: May 8, 1978

The F/EF-1 tornado developed a mile and a half southwest of Luxemburg in Kewaunee County around 4:50 pm CST, and then moved to two and a half miles southeast of Luxemburg before dissipating around 5 pm CST. Two buildings were destroyed a mile and a half west of Luxemburg on Highway 54. A large pole building was destroyed two and a half miles southeast of Luxemburg.

Event 130: June 7, 1978

The F/EF-2 tornado touched down briefly 2 miles northwest of Francis Creek in Manitowoc County around 3:15 pm CST. The path length and maximum width of the tornado were not documented.

Event 131: June 16, 1979

The F/EF-2 tornado developed near Oconto Falls in Oconto County around 9:30 am CST. The tornado travelled just over 15 miles and reached a maximum width of 100 yards before dissipating 2 miles northeast of Lena. At least 17 frame and mobile homes along with numerous barns were damaged or destroyed. Heavy rains and large hail accompanied the tornado destroying crops along the thunderstorm path.

Event 132: June 16, 1979

The F/EF-1 tornado developed 2 miles north of Irma in Lincoln County around 3:30 pm CST. The tornado moved to 2 miles northeast of Irma before dissipating at 3:45 pm CST.

Event 133: June 20, 1979

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County around 1:45 pm CST. The tornado on this date followed almost the same path as another more destructive twister that hit the city in April 1974. The tornado destroyed two mobile homes and severely damaged five others. Four people were hospitalized due to the injuries they suffered from the tornado.

Event 134: June 20, 1979

Goodman in Marinette County was hit by the F/EF-1 tornado around 2:30 pm CST. The tornado tore the roof off Louisiana Pacific Corps Seaway Division. Clarence Richards, personnel manager said 100 to 125 people were working inside the building when the tornado struck. Company officials said some of the workers were trapped when the roof collapsed. Only one injury was reported. There was no documentation on path length or width of the tornado.

Event 135: August 4, 1979

The tornado (F/EF-1) struck near Manitowoc in Manitowoc County around 10 am CST. Several buildings on a farm were destroyed. There was no documentation on path length or width of the tornado.

Event 136: August 9, 1979

The F/EF-2 tornado touched down near Rockland Beach in Calumet County around 6:20 pm CST. The strong tornado only travelled about a mile and was fifty yards wide. One death was attributed to the tornado. A Rockland Beach woman died after the strong winds demolished the family home. She was crushed as the family's first floor fireplace fell through the floor and into the basement. The husband and three children were not hurt despite the damage.

Event 137: August 9, 1979

The northeast side of Green Bay in Brown County was struck by the F/EF-1 tornado around 6:56 pm CST. There was no documentation on path length or width of the tornado.

Event 138: May 30, 1980

The F/EF-1 tornado touched down at Highway187 four miles south of Shawano in Shawano County around 2:30 pm CST. The tornado was 50 yards wide and travelled 2 miles before dissipating. A house trailer was destroyed and scattered debris two miles to the northeast.

Event 139: May 30, 1980

The F/EF-1 tornado touched down at Highway 22 and Highway J near Oconto in Oconto County around 3:20 pm CST. The tornado was 50 yards wide and travelled one mile. Several buildings and cars were damaged as well as twisting off several trees.

Event 140: May 30, 1980

The F/EF-1 tornado touched down about 2 miles outside of Black Creek in Outagamie County around 4:05 pm CST. The tornado travelled east around 4 miles before dissipating around 4:14 pm CST two miles east of Black Creek. An intermittent four mile path 50 yards wide resulted in damage to several garages in Black Creek.

Event 141: June 7, 1980

A brief F/EF-2 tornado touched down in Valders in Manitowoc County around 12:20 am CST. The tornado was less than 50 yards wide and was on the ground for less than a quarter of a mile. The brief touchdown resulted in the destruction of a large modern barn and heavy farm equipment. Field crops were beaten down in the vicinity of the storm.

Event 142: June 14, 1980

The tornado (F/EF-1) developed about 5 miles northwest of Manawa at Highway 161 near County Highway E in Waupaca County around 12:30 pm CST. The tornado crossed Highway 161 and then turned eastward and dissipated near Manawa. The tornado was 50 yards wide and travelled five miles before dissipating. Several residents in the area took several spectacular photographs of the twister.

Event 143: June 14, 1980

A small tornado (F/EF-1) formed at Highway C one mile east of Rhinelander in Oneida County at 1:25 pm CST. The tornado was 50 yards wide and travelled eastward for a mile and a half before the tornado dissipated over Lake Thompson. A falling tree injured one person seriously and two other injuries were noted in a trailer court. One house and three trailers and several rural buildings suffered damage.

Event 144: June 14, 1980

The F/EF-0 tornado was reported 5 miles north of Rhinelander by the Oneida County sheriff's department at 2:22 pm CST. The brief tornado touched down in a rural area. There was no documentation on path length or width of the tornado.

Event 145: July 5, 1980

The F/EF-1 tornado struck the farm of Warren Otto just south of Valders in Manitowoc County around 12:30 am CST. There was no documentation on path length or width of the tornado. The tornado destroyed a barn and machine shed, and farm machinery on the Warren Otto farm. Other farm buildings in the area also sustained minor damage.

Event 146: September 20, 1980

The Mattoon area of Shawano County was struck by the F/EF-1 tornado around 11:15 pm CST. The tornado was 35 yards wide and travelled a half mile before dissipating. Several buildings were damaged by the tornado.

Event 147: April 4, 1981

A brief F/EF-2 tornado touched down around 12:35 am CST 4 miles west of Kiel in Calumet County. The tornado was only 25 yards wide and travelled about a quarter of a mile. Six trailers in a line in the Country Aire Trailer Court were destroyed. One trailer was lifted into the air and deposited upside down.

Event 148: June 13, 1981

The F/EF-1 tornado touched down at the Timber Ridge Country Club on Route 51 one mile north of Hazelhurst in Oneida County around 8:40 pm. There was no documentation on path length or width of the tornado. The tornado destroyed about one thousand trees.

Event 149: June 13, 1981

The F/EF-1 tornado touched down at County Highway N about a half mile north Sayner. The tornado moved east for three miles through the dense forest and cross the intersection of Highway N and Highway G then dissipated. The tornado damaged electric lines, telephone poles and trees. The tornado was fifty yards wide.

Event 150: June 13, 1981

There is very little information available on this F/EF-2 tornado that struck Three Lakes in Oneida County around 9 pm. Path length and width were not available.

Event 151: March 30, 1982

The tornado initially touched down in the township of Armenia in Juneau County where it destroyed a house and 3 nearby mobile homes. Two occupants of the house were injured. The F/EF-1 tornado then moved northeast to just southeast of Nekoosa in Wood County around 2:05 pm CST. The tornado travelled intermittently on a 28 mile path before dissipating 3 miles southwest of Stevens Point in Portage County around 2:40 pm CST.

Event 152: May 6, 1982

The F/EF-2 tornado cut a 9 mile path from 2 miles south of Stephensville to one mile south of Black Creek in Outagamie County around 2:30 pm CST. The tornado reached a maximum width of 100 yards. Many small rural structures were destroyed. Some damage occurred to 12 large farm buildings and equipment inside. Two additional large barns were destroyed. Most of the damage occurred in Ellington Township.

Event 153: July 15, 1982

The F/EF-1 tornado swept southeast from May Flower Lake into rural areas at the south end of the lake in Marathon County around 7:15 pm CST. The tornado was 50 yards wide and travelled three quarters of a mile. Several trees were downed and one residence was damaged.

Event 154: July 3, 1983

The Eagle River Municipal Airport in Vilas County was hit by the F/EF-1 tornado at 4:39 am CST. The tornado was 20 yards wide and travelled a half mile before dissipating. Two single engine planes were destroyed and thirteen others were damaged. Five eighths inch ropes holding the planes down were shredded. One plane cart wheeled four hundred feet.

Event 155: July 3, 1983

The F/EF-2 tornado was first spotted near a home 6 miles west of Unity in Clark County around 5:35 pm CST. The tornado skipped across Clark County, skirting just north of Unity and crossed Highway 13 into Marathon County. In Marathon County, the tornado struck a farm just east of Highway 13, flipping a truck and camper as well as ripping a shed off its foundation. The tornado then struck a farm one mile east of Colby and just south of Highway N destroying many trees. The next farm to the east was struck and two hay wagons were flipped over and a chimney was knocked off. The tornado hit a farm three miles east of Colby and one mile south of Highway N. A large barn was pushed off its foundation. The tornado moved across Highway F just south of Cherokee, and into an 18 acre wooded lot destroying fifty large trees. Finally, a farm just east of Cherokee and south of Highway N took off the top of a silo. There were no further reports to the east. The tornado travelled approximately 6 miles and had a maximum width of fifty-five yards.

Event 156: July 3, 1983

The F/EF-1 tornado touched down in Birnamwood in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled a half mile.

Event 157: July 3, 1983:

The F/EF-0 tornado briefly touched down 5 miles northeast of Nekoosa in Wood County around 7:11 pm CST. The tornado was approximately 10 yards wide and travelled three tenths of a mile before dissipating.

Event 158: July 19, 1983

The tornado (F/EF-1) touched down at Stockbridge Harbor in Calumet County around 7:25 pm CST. The tornado smashed a shed roof and damaged two homes near Lake Shore Drive. The tornado turned east southeast damaging two garages and a barn on Military Road and then Hickory Hill Road where the roof of a mobile home was destroyed. The tornado was 100 yards wide and travelled 2 miles before dissipating.

Event 159 April 27, 1984:

The F/EF-0 tornado briefly touched down in the township of Saratoga in Wood County around 4:05 am CST. The tornado was 50 yards wide and travelled a mile before dissipating. Numerous trees were downed and some residential damage occurred. Hail the size of three quarters of an inch also fell during the storm.

Event 160: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched 4 miles northwest of Antigo in Langlade County around 2:50 pm CST. The tornado was 20 yards wide and travelled 7.5 miles across Langlade County. One home and three barns were demolished and twenty-five head of dairy cows were crushed to death in one barn.

Event 161: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

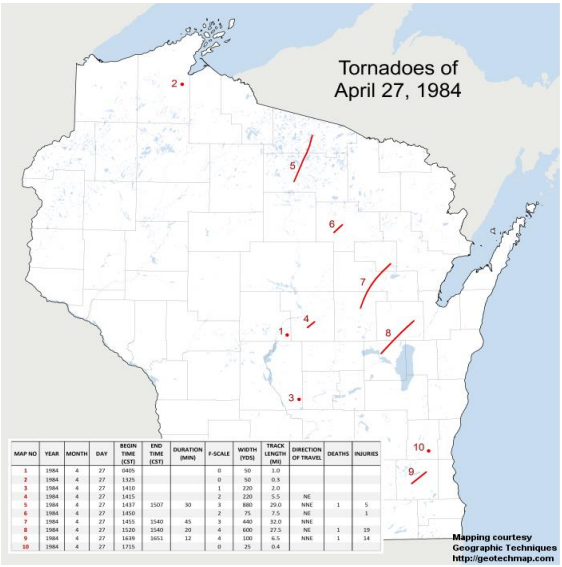
Event 162: April 27, 1984

Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

TORNADO REFERENCE GUIDE - CHRONOLOGICAL ORDER
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 163: April 27, 1984

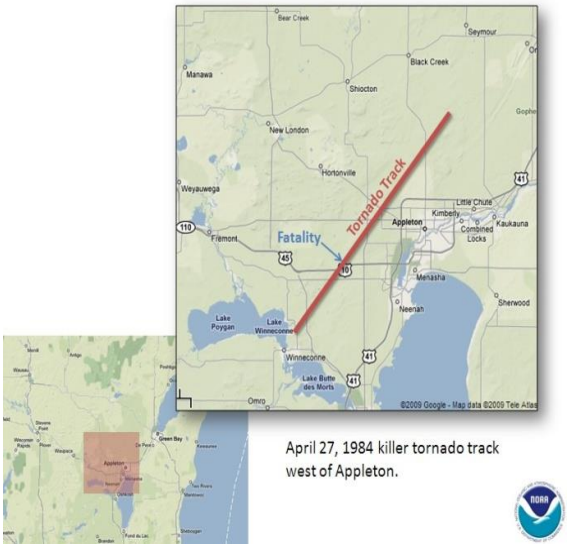
The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. The outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950.



MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0405			0	50	1.0			
2	1984	4	27	1325			0	50	0.5			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	880	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		4
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	19
9	1984	4	27	1639	1651	12	4	100	6.5	NNE	1	14
10	1984	4	27	1715			0	25	0.4			

Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado travelled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph).



April 27, 1984 killer tornado track west of Appleton.

Other tornadoes on April 27, 1984 across Northeast Wisconsin

In addition to the Fox Valley tornado, five other tornadoes were reported across central and northeast Wisconsin that day. An F3 tornado, with winds estimated near 140 mph, tore through Oneida and Vilas counties, killing one person south of St. Germain and injuring eight others. Another F3 tornado was reported across Waupaca, Shawano, and Menominee counties causing considerable damage. Other tornados were observed over Wood, Portage, and Langlade counties.

Event 164: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched down a half miles south of Plover in Portage County around 2:15 pm CST. The tornado was 220 yards wide and travelled five and a half miles before dissipating. At least nine homes and numerous sheds and barns were destroyed. A bun feeder wagon was thrown 150 yards which snapped a sixty-five foot cement silo. Ping pong size hail accompanied the storm.

Event 165: June 26, 1984

The F/EF-1 tornado touched 13 miles north of Wausau in Marathon County around 4:55 pm CST. The tornado was 100 yards wide and skipped eastward for 8 miles before dissipating in the town of Texas. The tornado damaged four homes and three farm buildings. It also destroyed a few sheds and uprooted trees.

Event 166: June 26, 1984

The F/EF-1 tornado touched down on the west side of Caroline in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled 4 miles before dissipating east of Caroline. On the west side of Caroline, the tornado flattened sheds and knocking over several large trees and gravestones in a cemetery. A church roof was ripped off on the east side of Caroline. The entire town was without power for three hours.

Event 167: July 14, 1984

The F/EF-0 touched down near County trunks BB and B one mile southeast of Peshtigo in Marinette County around 8:35 pm CST. The tornado was 25 yards wide and travelled only a tenth of a mile. Numerous trees and power lines were downed and there was minor damage to a home.

Event 168: July 26, 1984

A waterspout (F/EF-0) was noted 5 miles east of Oshkosh on Lake Winnebago in Winnebago County between 1 pm and 1:10 pm CST.

Event 169: September 24, 1984

The F/EF-2 tornado touched down thirteen and a half miles west southwest of Wausau in Marathon County around 4:50 pm CST, or one mile south of Highway P and one mile west of Highway 107. The tornado was 150 yards wide and travelled 12 miles before lifting on the east side of the Wisconsin River near Wausau. The tornado caused $2.2 million dollars in damage in the townships of Emmett, Mosinee, Marathon, and Rib Mountain. Three homes were destroyed, eight sustained major damage and several barns and sheds were leveled. Numerous trees were reported down. The storm was accompanied by baseball size hail one mile northeast of Rothschild.

Event 170: June 8, 1985

A severe thunderstorm spawned a killer F/EF-3 tornado and dropped large hail as it rolled through Price and Oneida Counties, causing widespread property, crop and timber damage. The tornado skipped from Park Falls to about 15 miles southeast of Rhinelander. The tornado first touched down one mile west of Park Falls around 6:15 pm CST and moved through the southern portion of the city. In Park Falls, 125 buildings were damaged with 12 houses and businesses were heavily damaged or destroyed. 26 people received mostly minor injuries in Park Falls. The tornado continued southeast, cutting an eighteen mile and 1.5 mile wide swath through eastern Price County and into Minocqua in Oneida County where the tornado dissipated around 6:52 pm CST. Two people were killed and sixteen injured at Swamsauger Lake and Cedar Falls resort in the Willow Reservoir area in Oneida County. A man apparently drowned when the tornado lifted him and his house and deposited it into Swamsauger Lake. A woman was killed when a tree crashed through a vehicle in which she was seeking refuge. The tornado continued to the southwest portion of Rhinelander and then dissipated southeast of Monico. A total of 47 residences were heavily damaged or destroyed while another 43 more received some damage in Oneida County. 9,900 acres of timber and cranberry bogs were lost in Oneida County.

Event 171: June 8, 1985

The F/EF-2 tornado touched down around 8 pm CST near Sand Bay in Door County, causing some building damage. The tornado skipped east 5 miles across portions of Sturgeon Bay. The tornado was 150 yards wide. Garages, sheds and ten barns were leveled or blown away. Yachts were blown off cradles and hundreds of trees were downed. Property damage was estimated at $1.8 million dollars. Hail up to five inches in diameter covered the ground to a depth of six inches just northeast of Sturgeon Bay. The storm caused an estimated $1.5 million dollars in crop damage.

Event 172: July 4, 1985:

The F/EF-0 tornado touched down one mile north of Redgranite in Waushara County around 5:03 pm CST. The tornado was 50 yards wide and skipped along for 5 miles before dissipating one mile southwest of Pine River around 5:17 pm CST. The tornado damaged a house one mile southwest of Pine River. The storm also produced hail up to three and a half inches in the Richford and Hancock areas. The large hail dented 47 new cars at a dealership in Coloma.

Event 173: August 12, 1985

A large F/EF-2 tornado touched down around 6:13 pm CST six miles south of Marshfield in Wood County along highway B. The tornado travelled northeast across Highway EE and then slammed Auburndale. The tornado was on the ground for ten miles before the tornado dissipated in Auburndale around 6:30 pm CST. At its peak, the tornado was a massive 880 yards wide. Damage was estimated at $5.5 million dollars. Fifty-eight dwellings and forty farms suffered damage. The Apache Gardens subdivision and the Wishkershen Trailer Park in Auburndale received substantial damage.

Event 174: August 12, 1985

The F/EF-0 tornado touched down one mile north of Richford in Waushara County around 7:30 pm CST. The tornado was 100 yards wide and travelled a half mile before dissipating. The tornado flattened 2 barns, damaged 5 homes and leveled many trees. Several sheds in Richford were destroyed and extensive window and roof damaged occurred.

Event 175: July 4, 1986

The F/EF-3 tornado touched down 2 miles south of Niagara in Marinette County at Highway 8 and Highway 141 around 7 pm CST. The tornado demolished a building next to a restaurant and slashed some trees. The tornado then skipped east-southeast and destroyed a home and garage, carrying its roof a half mile away. The tornado crossed the Menominee River and into the Carney-Nadeau area of Menominee County, Michigan around 7:25 pm CST. The tornado travelled 8 miles and was 100 yards wide.

Event 176: July 4, 1986

The F/EF-2 tornado touched down on the south shore of Windpudding Lake or 5 miles southeast of Hazelhurst in Oneida County around 7:35 pm CST. The tornado heavily damaged seven cottages and leveled numerous trees. A shed was blown thirty feet through the air. A dog inside the shed survived. The tornado travelled a mile and a half and reached a maximum width of 100 yards before it dissipated around 7:40 pm CST.

Event 177: July 24, 1986

The F/EF-1 tornado briefly touched down around 2:15 pm CST on South Shore Drive near Little St. Germain Lake near St. Germain in Vilas County. The tornado was 50 yards wide and travelled a quarter of a mile. Five buildings, some garages, some boats and docks were damaged. A dozen trees were snapped off at the base.

Event 178: July 2, 1987

A brief tornado touched down just east of Pike Lake in Marathon County around 5:10 pm CST. The F/EF-1 tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 5:15 pm CST. Numerous trees were twisted and knocked down causing damage to seven homes, a boat trailer and one boat foundation.

Event 179: July 12, 1987

The F/EF-1 tornado touched down one mile south of Francis Creek in Manitowoc County around 11:27 am CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 11:30 am CST. One house and a garage were destroyed. A barn, shed and several trees were also damaged. Debris from the house was found as far as several miles away.

Event 180: August 14, 1987

Considerable damage from the F/EF-1 tornado occurred one mile west of Menasha in Winnebago County between 5:40 and 5:43 pm CST. The tornado was 100 yards wide and travelled a quarter of a mile. Most of the damage occurred at a warehouse where siding and a roof were twisted and ripped away. Two 100 square foot cement slabs were also torn from the building. Trees and power lines were downed as well.

Event 181: May 8, 1988

The F/EF-2 tornado developed four and a half miles southwest of Hadler in Marathon County around 5:10 pm CST. The tornado travelled 13 miles and reached a maximum width of 250 yards before dissipating in Rib Falls. Two people were injured in the town of Emmet when their mobile home trailer was rolled upside down. In all, three mobile homes, six large barns, three machine sheds and silos were destroyed with numerous buildings damaged. Thirty-nine acres of ginseng racks on sixteen farms were knocked off their posts causing $450,000 in damage. The total cost of the tornado in Marathon County was over one million dollars in damage.

Event 182: May 8, 1988

In Waushara County, the F/EF-1 tornado travelled 5 miles from one mile south of Mount Morris to 3 miles northeast of Wild Rose between 5:06 and 5:12 pm CST. The tornado was 100 yards wide. Damage to structures and trees were reported along Silver Lake.

Event 183: May 8, 1988

The F/EF-0 tornado touched down in rural areas 3 miles west of Keene in Portage County around 5:12 pm CST. The tornado was 25 yards wide and travelled a mile before dissipating.

Event 184: July 29, 1988

The brief tornado touched down in the Eagle River in Vilas County around 8:30 pm CST. The tornado was 50 yards wide and only travelled a tenth of a mile. The F/EF-1 tornado damaged the Northland Pines High School in Eagle River. Winds accompanying the storm downed signs and trees in the Eagle River area.

Event 185: August 1, 1988

The F/EF-1 tornado touched down one mile west of St. Germain in Vilas County around 6:52 pm CST. The tornado was 50 yards wide and travelled one mile. The tornado caused falling trees to damage cars and buildings one mile west of St. Germain. Another tornado (F/EF-0) was reported at 7:22 pm CST two miles southeast of Eagle River.

Event 186: August 1, 1988

A brief tornado (F/EF-0) occurred 3 miles south of Hazelhurst in Oneida County around 6:20 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. The tornado damaged some trees.

Event 187: August 1, 1988

A brief tornado (F/EF-0) occurred 2 miles southeast of Eagle River in Vilas County around 7:22 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile. The tornado damaged some trees.

Event 188: August 4, 1988

The F/EF-1 tornado developed one mile east of Reedsville in Manitowoc County around 2:35 pm CST. The tornado was 25 yards wide and travelled 4 miles before dissipating two miles north of Cato around 2:45 pm CST. Two barns, one shed and several trees were damaged by the tornado.

Event 189: September 19, 1988

A brief tornado (F/EF-0) developed one mile east of Plainfield in Waushara County at 4:05 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 190: September 19, 1988

A brief tornado (F/EF-0) developed one mile west of Edgar in Marathon County at 4:37 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 191: May 24, 1989

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County between 8:10 and 8:15 pm CST. The tornado was 50 yards wide and travelled 1.2 miles before dissipating.

Event 192: May 24, 1989

The F/EF-1 tornado touched down 4 miles west northwest of Chilton in Calumet County around 9:05 pm CST. The tornado was 50 yards wide and was on the ground for a quarter of a mile.

Event 193: May 24, 1989

A brief tornado (F/EF-0) touched down one mile east of Cooperstown in Manitowoc County at 9:15 pm CST. The tornado was 50 yards wide and travelled two tenths of a mile before dissipating.

Event 194: June 12, 1990

The F/EF-1 tornado hit a farm 2 miles west of Stratford in Marathon County around 6:35 pm CST. The tornado was 25 yards wide and was only on the ground for a tenth of a mile. According to newspaper reports, there was damage to some farm structures.

Event 195: June 14, 1991

The tornado touched down 8 miles west northwest of Merrill in Lincoln County around 11:55 am CST. The F/EF-1 tornado was 50 yards wide and was on the ground for a mile. The tornado destroyed several trees, a barn and damaged a roof and porch of a house.

Event 196: June 27, 1991

The F/EF-2 tornado touched down 12 miles west-southwest of Minocqua in Oneida County around 6:20 pm CST. The tornado cut a 6 mile swath from near Pine Lake to Franklin Lake to Marion Lake before dissipating around 6:30 pm CST. The tornado was 400 yards wide. Thirteen homes and one car were damaged along its path with damage estimated at $350,000 dollars. In addition, 1,600 acres of industrial forest valued at $240,000 were also damaged.

Event 197: July 28, 1991

A waterspout was reported near Rock Island across extreme northern Door County at 10:15 am CST. A second waterspout was reported near Washington Island.

Event 198: July 28, 1991

A waterspout was reported near Washington Island across extreme northern Door County around 10:15 am CST. A second waterspout was reported near Rock Island around the same time.

Event 199: September 14, 1991

The F/EF-0 tornado touched down briefly 2 miles west of Green Valley in Shawano County around 6:00 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Damage was confined to some trees and a pair of sheds.

Event 200: April 20, 1992:

The F/EF-1 tornado formed 2 miles southwest of Arpin in Wood County around 4 pm CST. The tornado was 25 yards wide and travelled 9.5 miles before dissipating a half mile south of Bethel or near Bakerville around 4:20 pm CST. Damage included: a shed was knocked down near Arpin, a mobile home was picked up and twisted around near Bethel and some roof damage was reported at Bakerville

Event 201: May 16, 1992

The F/EF-1 tornado touched down 5 miles north of Junction City in Portage County around 2:30 pm CST. The tornado was 400 yards wide and travelled 1.3 miles before dissipating. The tornado damaged three homes, two sheds, and a mobile home roof 5 miles north of Junction City.

Event 202: May 16, 1992

The F/EF-2 tornado touched down 4 miles west of Keene in Portage County around 6:10 pm CST. The tornado was 400 yards wide and travelled eleven miles to 5 miles southeast of Amherst before dissipating around 6:30 pm CST. The tornado tossed a mobile home in the middle of a road in Plover Township and damaged fourteen homes, two farms, and a large amount of irrigation equipment.

Event 203: May 16: 1992

In Waupaca County, the F/EF-1 tornado touched down two and a half miles northeast of Northland around 6:30 pm CST. The tornado was 100 yards wide and was on the ground for a mile and a half. Many trees and three homes were damaged by the tornado.

Event 204: May 16: 1992

The F/EF-1 tornado formed near Lamers and Clancy Roads near Kaukauna in Outagamie County around 7:20 pm CST. The tornado was 100 yards wide and travelled several miles into extreme southwest Brown County where it dissipated 2 miles southwest of Wrightstown around 7:30 pm CST. Numerous trees were down, some of which landed on houses.

Event 205: June 17, 1992

The F/EF-0 tornado briefly touched down in an open field 2 miles northeast of Denmark in Brown County around 12:55 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile.

Event 206: July 19, 1992

The F/EF-1 tornado formed 2 miles west southwest of Stratford in Marathon County around 3:54 pm CST. The tornado was 400 yards wide and was on the ground for only a quarter of a mile. The damage from the tornado included: a destroyed barn, two houses and one garage damaged while several trees were downed.

Event 207: August 29, 1992

The F/EF-3 tornado touched down east of Big Flats in Adams County around 7 pm CST. The tornado skipped along a five mile path, toppling trees and downing a 24 by 30 foot building. The killer tornado travelled a 28 mile path across Adams and Waushara Counties. The tornado was noted north of Coloma 710 pm just CST. The tornado then moved to Wautoma to just north of Redgranite and then to three miles southeast of Poy Sippi before dissipating around 7:55 pm CST. The hardest hit area was just south of Wautoma where a woman was killed when her mobile home was hurled several hundred feet into a parking lot. In addition, 30 people were injured, several critically. The tornado caused over ten million dollars in damage. All-together, forty-eight homes were destroyed and ninety-five other structures sustained major damage, 289 received minor damage. 950 acres of trees were toppled by the tornadic winds.

Event 208: October 8, 1992

The F/EF-1 tornado touched down in the Gilbert Lakes area about 5 miles northeast of Wild Rose in Waushara County around 4:48 pm CST. The tornado was 400 yards wide and was on the ground for a mile. Fifteen homes and buildings were damaged. 500 oak and pine trees were also damaged.

Event 209: October 8, 1992

The F/EF-1 tornado touched down about 4 miles northeast of Blaine in Portage County and moved through the township of Lanark around 5:12 pm CST. The tornado was 100 yards wide and was on the ground for 2 miles. Ten homes and buildings were damaged, a barn and garage destroyed and numerous trees were knocked down.

Event 210: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed two and a half miles south of Spring Lake around 6:38 pm CST. The tornado was 25 yards wide and travelled 8 miles before dissipating around 6:55 pm CST two miles west of Auroraville. Only minor damage was noted.

Event 211: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed a half mile east of Dakota around 7:15 pm CST. The tornado was 35 yards wide and travelled 12 miles before dissipating around 7:35 pm CST two miles south of Redgranite. Only minor damage was noted.

Event 212: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado touched down 5 miles southeast of Redgranite around 7:35 pm CST. The tornado was 25 yards wide and travelled 6 miles before dissipating at 7:45 pm three miles southeast of Auroraville. Only minor damage was noted.

Event 213: June 8, 1993

The F/EF-0 small tornado briefly touched down in an open filed one mile east of Pickett in Winnebago County around 5:35 pm CST. The tornado was 25 yards wide and travelled a tenth of a mile.

Event 214: August 9, 1993

The F/EF-0 tornado touched down one mile north of Tripoli in Oneida County around 8:15 pm CST. The tornado was 50 yards wide and travelled three tenths of a mile. Little damaged was noted with this tornado.

Event 215: April 24, 1994

The F/EF-0 tornado touched down 3 miles south of Luxemburg in Kewaunee County around 3:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. No damage was reported with this storm.

Event 216: April 26, 1994

The F/EF-1 tornado touched down a mile and a half north of Conover in Vilas County around 2:55 pm CST. The tornado was 150 yards wide and travelled four and a half miles before dissipating 3 miles southeast of Land O' Lakes around 3:05 pm CST. The tornado damaged a house just north of Conover and leveled hundreds of trees along its four and a half mile path into the Nicolet National Forest.

Event 217: May 30, 1994

The F/EF-2 tornado touched down 2 miles southwest of Crandon in Forest County around 850 pm CST. The tornado travelled 12 miles and reached a maximum width of 800 yards before dissipating one mile north of Laona around 9:16 pm CST. Three mobile homes and 25 homes were destroyed while 600 acres of timber was leveled. Three people were injured in a mobile that was destroyed by the tornado. The thunderstorms also produced tennis ball size hail as the storms passed through Rhinelander.

Event 218: July 4, 1994

The F/EF-0 tornado touched down 4 miles west of Fremont in Waupaca County around 4:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado did not produce any significant damage.

Event 219: July 5, 1994

A powerful F/EF-4 tornado cut a short but devastating path in northern Manitowoc County from two and one half miles northwest of Maribel around 3:43 pm CST to a half mile west of Cooperstown before dissipating around 3:55 pm CST. A second small tornado also developed two miles southwest of Cooperstown and carved out a minor damage path leveling a shed and tossing a grain box 300 yards. Much of the $2.1 million in damages was inflicted by the first tornado. The tornado damaged 26 homes, 19 vehicles and one mobile home. Four heifers and two sheep were also killed. One man was injured when he was struck by a 55 gallon drum while a woman suffered minor injuries when pieces of a stone foundation fell on her. The tornado travelled three and a half miles and reached 150 yards in diameter.

Event 220: July 5, 1994

On this date, the F/EF-2 tornado touched down 2 miles southwest of Cooperstown in Manitowoc County around 3:53 pm CST. The tornado travelled about a mile and reached a maximum width of 150 yards. A shed was leveled and a grain box was tossed about 300 yards. This was one of two tornadoes to hit Manitowoc County on this date. A stronger F/EF-4 tornado touched down two and a half miles northwest of Maribel and travelled to a half mile west of Cooperstown between 3:43 pm and 3:55 pm CST.

Event 221: July 8, 1994

The F/EF-1 tornado touched 3 miles northwest of Elderon in Marathon County around 2 pm CST. The tornado was 75 yards wide and only travelled two tenths of a mile. The tornado moved a garage off its foundation and wrecked a house roof and shed three miles northwest of Elderon.

Event 222: July 8, 1994

The F/EF-1 tornado formed three miles southeast of Aniwa in Shawano County around 2:16 pm CST. The tornado was 75 yards wide. The tornado only travelled two tenths of a mile. The tornado destroyed a garage and toppled trees three miles southeast of Aniwa.

Event 223: August 27, 1994

The F/EF-1 tornado formed in Hancock in Waushara County around 9:07 pm CST. The tornado was 75 yards wide and was on the ground for a mile and a half.

Event 224: August 27, 1994

The F/EF-1 tornado developed a mile and half south of Wausaukee in Marinette County around 9:41 pm CST. The tornado was 75 yards wide and was on the ground for 4 miles before dissipating three miles southeast of Wausaukee around 9:50 pm CST.

Event 225: June 29, 1995

The F/EF-0 tornado touched down 10 miles southwest of Kewaunee in Kewaunee County around 11:05 am CST. The tornado was 10 yards wide and travelled a tenth of a mile. The weak tornado touched down only for a few seconds in southern Kewaunee County. Minimal crop damage was reported since this brief tornado occurred in open rural country. The tornado appeared to form on the Lake Michigan lake breeze.

Event 226: July 14, 1995

The tornado touched down a mile and a half southwest of Phelps in Vilas County around 4:40 pm CST. The F/EF-1 tornado was 250 yards wide and travelled east for three and a half miles before dissipating just southeast of Phelps at 4:47 pm CST. Trees fell on cars, homes and businesses.

Event 227: April 25, 1996

A cold-core F/EF-0 tornado briefly touched down 2 miles west of Pensaukee in Oconto County around 5:55 pm CST. The tornado was 40 yards wide and travelled a tenth of a mile before dissipating at 5:57 pm CST. Several 6 to 8 inches diameter birch trees were knocked down.

Event 228: June 11, 1996

The F/EF-0 tornado briefly touched down 5 miles northwest of Chilton in Calumet County near the intersection of County Trunk BB and Killsnake Road around 4:08 pm CST. The tornado was 30 yards wide and was on the ground for a tenth of a mile before dissipating around 4:09 pm CST. The tornado threw a pile of lumber 30 feet in the air, tore shingles off of a shed and broke a window.

Event 229: July 18, 1996

The F/EF-1 tornado touched down a mile and a half southwest of Tomahawk at 4:20 pm CST. The tornado uprooted two trees at Bradley Park, then moved southeast across Lake Mohawkskin, flipping two boats over. The tornado moved back on land and tore part of a roof off a tavern while a garage was removed from its foundation. It continued to move into the Road Lake area where it produced its most significant damage. Three cottages were damaged after trees fell on them. The tornado reached a maximum width of 100 yards before it dissipated nearly three miles southeast of Tomahawk around 4:30 pm CST.

Event 230: July 18, 1996

A waterspout (F/EF-0) was spotted 5 miles east of Oshkosh over Lake Winnebago in Winnebago County around 5:45 pm CST.

Event 231: July 18, 1996

The F/EF-1 tornado touched down 1.1 miles south of Jericho in Calumet County around 6:05 pm CST. The tornado was 100 yards wide and was on the ground a mile and a half before it dissipated 1.6 miles southeast of Jericho at 6:07 pm CST.

Event 232: July 18, 1996

The F/EF-0 developed 5.9 miles south of Chilton in Calumet County around 6:10 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado moved over a squad car, violently shaking it about. The tornado flattened portions of two nearby wheat fields.

Event 233: July 18, 1996

The F/EF-0 tornado developed 2.2 miles west northwest of St. Anna in Calumet County around 6:15 pm CST. The tornado was 50 yards wide and travelled a half mile before dissipating 1.8 miles west of St. Anna around 6:16 pm CST. The tornado damaged one farm, numerous trees and some crops. Calf houses at the farm were thrown 1,000 feet. The tornado entered Fond Du Lac County 1.6 miles southeast of Jericho and then reentered Calumet County 2.2 west north of St. Anna.

Event 234: August 7, 1996

The F/EF-2 tornado touched down six and a half miles north of Stratford in Marathon County around 1:45 am CST, tearing the top portion of a home off, flattened a garage, and snapped off several large trees. The tornado continued east northeast for two and a half miles and reached a maximum width of 200 yards before dissipating two and a half miles north northwest of Fenwood around 1:49 am CST. As the storm moved east, there was damage to a storage shed and thirty trees on a farm. A dozen of Ginseng shelters were thrown about. The tornado was not on the ground for the entire path.

Event 235: August 7, 1996

A brief F/EF-1 tornado touched down one mile north of Stratford in Marathon County around 1:46 am CST. The tornado was 100 yards wide and only travelled two tenths of a mile before dissipating 1.2 miles northeast of Stratford round 1:47 am CST. The tornado snapped off numerous large trees, some of which fell on the top of homes. In addition: a barn was flattened, a semi-trailer was flipped over and a car moved 75 feet.

Event 236: August 7, 1996

The F/EF-1 tornado touched down four tenths of a mile southwest of Shantytown in Manitowoc County around 2:19 am CST. The tornado was 100 yards wide and travelled nearly a half mile to Shantytown before dissipating around 2:21 am CST. The tornado tore a 100 yard swath through a cornfield. In Shantytown, the tornado tore the roof and garage off a home. Pieces of the roof were found one-quarter of a mile away from the home.

Event 237: July 16, 1997

On this date the F/EF-2 tornado touched down in southeast Lincoln County eleven and a half miles southeast of Merrill around 2:38 pm CST. The storm travelled under a mile to the southeast into Marathon County before dissipating 12 miles southeast of Merrill around 2:40 pm CST. The tornado reached a maximum width of 100 yards. As the storms rolled through Lincoln County, softball size hail was reported northeast of Merrill.

Event 238: July 16, 1997

The F/EF-2 tornado touched down eight and a half miles northeast of Nutterville in Marathon County around 2:40 pm CST. The storm travelled just over three miles and reached a maximum width of 100 yards before dissipating 6.9 miles northeast of Nutterville around 2:45 pm CST. The tornado damaged several homes, vehicles and silos, and destroyed numerous barns, sheds and crops. Twenty head of dairy cattle were killed or had to be destroyed. There were two other tornadoes with this tornadic supercell. Total damage to crops and property from the five tornadoes, hail and straight-line winds in Marathon County alone topped $10 million.

Event 239: July 16, 1997

The F/EF-0 tornado developed 4 miles southwest of Hogarty in Marathon County around 3 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 4.2 miles southwest of Hogarty around 3:01 pm CST.

Event 240: July 16, 1997

The F/EF-0 tornado touched down 3 miles north of Sunset in Marathon County around 3 pm CST. The tornado was 15 yards wide and was on the ground for a tenth of a mile before dissipating at 3:01 pm CST.

Event 241: July 16, 1997

The F/EF-1 tornado briefly touched down two miles northeast of Ringle in Marathon County around 3:09 pm CST. The tornado was 50 yards wide and only travelled two tenths of a mile before dissipating 1.8 miles northeast of Ringle around 3:11 pm CST.

Event 242: July 16, 1997

The F/EF-0 tornado touched down 2 miles north of Elderon in Marathon County around 3:20 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 1.8 miles north of Elderon around 3:22 pm CST.

Event 243: July 16, 1997

The F/EF-0 tornado touched down in Hancock in Waushara County at 4:41 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating at 4:42 pm CST. The tornado touched down in an open field in Hancock.

Event 244: March 29, 1998

The F/EF-0 tornado touched down in 3 miles west of Tomahawk in Lincoln County at 7:28 pm CST. The tornado was 75 yards wide and travelled four and a half miles before dissipating 3 miles north of Tomahawk at 7:35 pm CST. The tornado damaged several sheds, garages and a pole building west of Tomahawk. The storm also downed many power poles, disrupting power to thousands of customers.

Event 245: May 31, 1998

A brief F/EF-0 tornado touched down 4 miles west southwest of Mosinee in Marathon County at 12:20 am CST. The tornado was 50 yards wide and was on the ground for two tenths of a mile before it dissipated 3.8 miles west southwest of Mosinee at 12:21 am CST.

Event 246: May 31, 1998

The tornado developed a half mile north of Stockbridge in Calumet County around 1:20 am CST. The F/EF-1 tornado was 75 yards wide and travelled 1.4 miles before dissipating 2 miles northeast of Stockbridge around 1:24 am CST. The tornado destroyed a garage and silo, damaged two barns and overturned farm vehicles. A 2-by-4 was driven through the exterior wall of a house, narrowly missing one of the sleeping children.

Event 247: June 16, 1998

The F/EF-0 was designated a landspout in the monthly storm report. The tornado touched down 3 miles west northwest of Coloma in Waushara County at 3 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was reported.

Event 248: August 23, 1998

A brief F/EF-0 tornado touched down near Menasha in Winnebago County at 3:22 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating. No damage was noted on the monthly storm report.

TORNADO REFERENCE GUIDE - CHRONOLOGICAL ORDER
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 249: August 23, 1998

Article written by National Weather Service Green Bay Staff

The F/EF-3 tornado struck a rural section of central Door County in Northeast Wisconsin during the evening of August 23, 1998. The multiple-vortex tornado was on the ground for nearly 14 minutes, and carved a path of damage 5.1 miles long and 1/4 to over 1/2 mile wide at times. Damage was estimated at nearly $7 million. The tornado, which moved off the waters of Green Bay, moved on shore three miles southwest of Egg Harbor at 5:30 pm CST, near Horseshoe Bay. Thousands of trees were snapped or uprooted as the tornado moved across the heavily wooded area in Murphy Park. The width of the damage path just after it came on shore was nearly one-half mile! The tornado then crossed Highway 42 at about 5:34 pm CST, severely damaging several houses and businesses. Damage in this area was rated F2 on the Fujita Scale of F0 to F5. About three minutes later the tornado ripped a two-story farm house off its foundation, dropping it 20 yards away. Based on the house's construction, damage in this area was rated F3. Nearby, a campground was hit, causing considerable damage there to trees and campers. Amazingly, only two people were injured. The tornado weakened shortly thereafter, lifting off the ground three miles west-northwest of Jacksonport at around 5:44 pm CST.

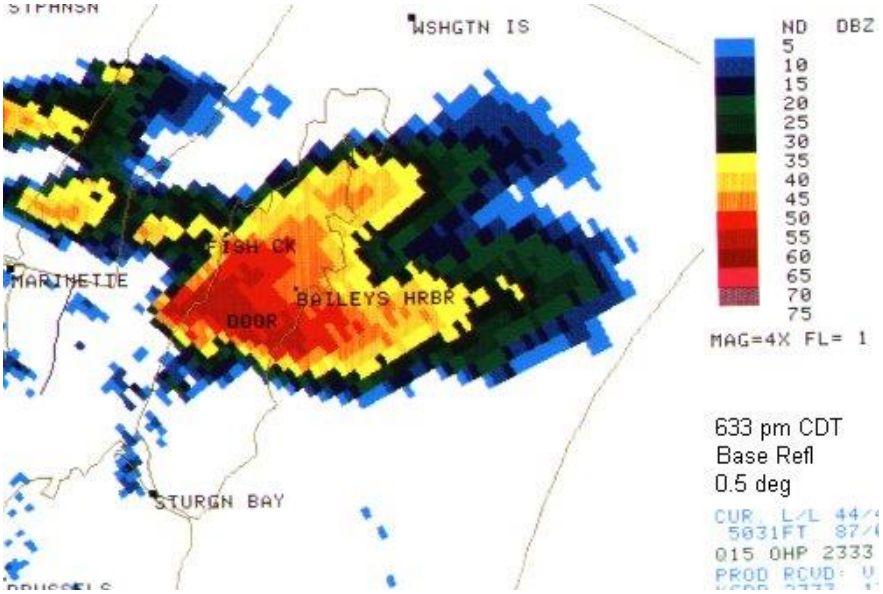
AUGUST 23, 1998 DOOR COUNTY F-3 TORNADO

This photo was taken about the time the super cell thunderstorm was entering the Bay of Green Bay, off the Menominee, Michigan coast around 5:05 pm CST. The picture was taken 75 miles south of the storm. (Photograph © 1998 Michael Schardt)

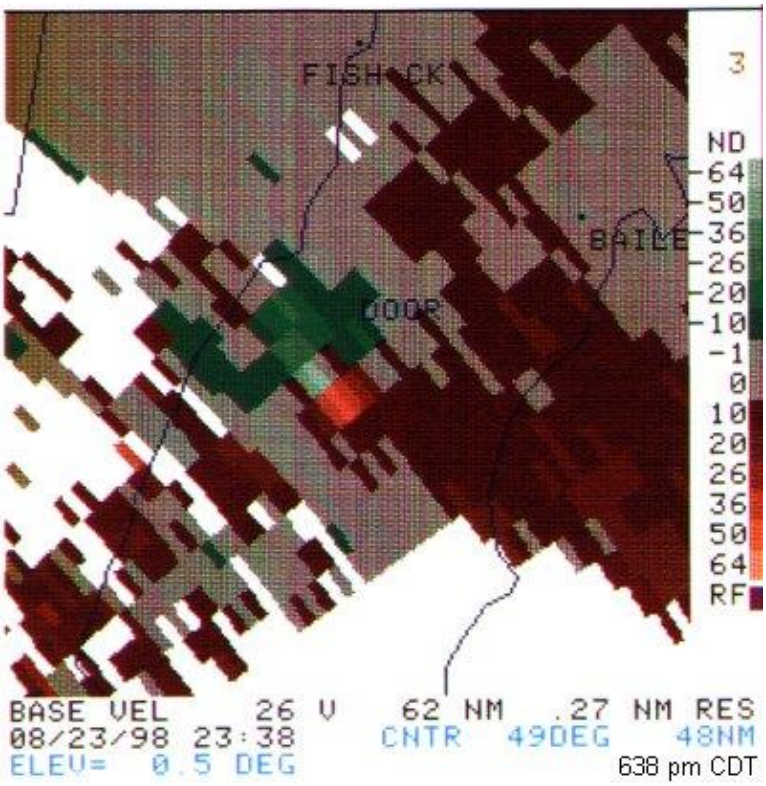
This picture was taken around 5:15 pm CST, about the time the supercell was producing
the waterspout on the bay. The picture was taken 25 miles south of the storm).
(Photograph © 1998 Ray Fulwiler)

These photos were taken by Tom Janssen II at Murphy Park, which was hit by the tornado. The two on the left show the waterspout just after if developed, around 5:15 pm CST. The third picture was taken a little after 5:20 pm CST. The tornado was off the Door county shore over the Bay of Green Bay.

These pictures were taken by Gary Gridley, from Egg Harbor. The photo on the left was taken at 5:25 pm CST. The picture on the right was taken around 5:30 pm CST, as the tornado was coming onshore at Murphy Park.



This image shows the supercell thunderstorm as viewed by the radar. The image was taken at 633 pm CDT.



The second image shows the tornado vortex signature 9 minutes later (638 pm CDT) near the time it was producing F3 damage. At this point, the radar measured 94 knot (108 mph) winds (ground relative) at about 4100 feet above the ground.

Door County Tornado Damage

Here is a panoramic view looking east on Hwy 42. The damage width (which goes off the picture on both sides) was over ¼ mile wide as it passed over Hwy 42. (Photograph by Jeff Last)

This building (left picture) was on the south side of the tornado as it passed over Hwy 42 (Photograph by Jill Last, NWS Green Bay). There used to be a farm house and barn here (picture on right).

Event 250: May 5, 1999

The F/EF-0 tornado touched down one mile west northwest of Tomahawk in Lincoln County at 4:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile before dissipating at 4:31 pm CST.

Event 251: August 3, 1999

The F/EF-0 tornado briefly touched down 3 miles west of Pittsville in Wood County at 5:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado knocked down trees 3 miles west of Pittsville.

Event 252: August 4, 1999

A waterspout (F/EF-0) was reported by a vessel on the lake 21 miles east southeast of Sturgeon Bay in Door County at 4:05 pm CST. The crew of the vessel observed two other waterspouts about 21 miles east southeast of Sturgeon Bay. The U.S. Coast Guard relayed the report they received from the vessel on the lake.

Event 253: September 9, 1999

A waterspout (F/EF-0) was reported 3 miles north of Sister Bay in Door County at 2:55 pm CST.

Event 254: September 19, 1999

The crew of a ship off the Door County shoreline, 8 miles southeast of Sturgeon Bay, spotted a waterspout (F/EF-0) at 4:46 pm CST and then dissipated around 5:10 pm CST. There may have been other waterspouts in the vicinity of the one reported.

Event 255: May 12, 2000:

A brief (F/EF-0) tornado touched down 5 miles west northwest of St. Nazianz in Manitowoc County around 10:43 am CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No damage was reported with the tornado. The thunderstorms that produced the tornado were some of the most devastating thunderstorms to move across northeast Wisconsin. The combination of 100 mph straight line winds and 2 inch hail produced very serious damage in St. Nazianz. Thirty people were injured by the storm in Manitowoc County with 100 homes destroyed by the wind and hail.

Event 256: July 13, 2000

The F/EF-0 tornado touched down 1.5 miles northeast of Forestville in Door County at 2:55 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage.

Event 257: July 20, 2000:

Boaters spotted a waterspout (F/EF-0) two miles west of Sister Bay in Door County at 12:58 pm CST.

Event 258: July 27, 2000

The F/EF-0 tornado first touched down 1.5 miles west of Harmony in Marinette County at 7:07 pm CST. The tornado was 50 yards wide and was on the ground for four tenths of a mile before it dissipated 1.1 miles west southwest of Harmony at 7:10 pm CST. Another tornado (F/EF-0) occurred at 7:30 pm CST 1.7 miles west of Peshtigo. The first tornado report was received even before the storm became visible on radar.

Event 259: July 27, 2000

A brief F/EF-0 tornado touched down 1.7 miles west of Peshtigo in Marinette County at 7:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile.

Event 260: August 14, 2000

A brief F/EF-0 tornado touched down at Lake Tomahawk in Oneida County at 7:10 pm CST. The tornado was 25 yards wide and was on the ground a tenth of a mile. The tornado damaged trees in the Lake Tomahawk area.

Event 261: April 23, 2001

A waterspout F/EF-0 developed 6 miles west southwest of Fairland in Door County around 1:26 pm CST. The waterspout moved north along the shoreline before it dissipated 9 miles northwest of Sturgeon Bay.

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Event 263: September 6, 2001

The F/EF-0 tornado touched down three tenths of a mile south southwest of Pelican Lake in Oneida County around 6:09 pm CST. The tornado was 30 yards wide and was on the ground for a half mile before dissipating 1.3 miles north northeast of Pelican Lake around 6:14 pm CST. The tornado caused minor damage to the Pelican Lake Supper Club, blew the roof off a nearby house and destroyed a garage. The tornado also caused minor damage to the Pelican Lake Town Hall and uprooted several trees.

Event 264: April 18, 2002

A brief F/EF-0 tornado touched down 2 miles west of Bradley in Lincoln County at 3:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 265: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles southwest of Woodboro in Oneida County at 3:57 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 266: April 18, 2002

A brief F/EF-0 tornado touched down 4 miles east of Rhinelander in Oneida County at 4:33 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 267: April 18, 2002

The F/EF-1 tornado formed 3 miles southeast of Stratford in Marathon County around 6:13 pm CST. The tornado was 100 yards wide and travelled 14 miles before dissipating 6 miles northwest of Mosinee around 6:27 pm CST. The tornado downed hundreds of trees, while numerous barns and farm sheds were destroyed by a combination of the tornado and straight line winds. Plows had to be used to clear trees from some of the roads.

Event 268: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles south southwest of the Wausau Airport in Marathon County around 6:32 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 269: May 6, 2002

The F/EF-0 tornado touched down 5 miles northwest of Winneconne in Winnebago County around 4:30 pm CST. The tornado was 50 yards wide and travelled four miles on the ground before dissipating 2.5 miles north of Winneconne around 4:40 pm CST. The tornado moved across Lake Winneconne.

Event 270: May 6, 2002

A brief F/EF-0 tornado touched down 8 miles north of Wittman Field in Oshkosh in Winnebago County at 5:02 pm CST. The tornado was 20 yards wide and was only on the ground for a tenth of a mile. No damage was noted with the tornado.

Event 271: July 30, 2002

The F/EF-0 tornado touched down ten and a half miles west of Merrill in Lincoln County around 5:47 pm CST. The tornado was 150 yards wide and skipped along the ground for 1.2 miles before dissipating nine and a half miles west of Merrill around 5:50 pm CST.

Event 272: July 30, 2002

The F/EF-0 tornado developed 5 miles north of Merrill in Lincoln County at 6:08 pm CST. The tornado was 200 yards wide and travelled on the ground for 9 miles before dissipating nine and a half miles northeast of Merrill at 6:28 pm CST. The tornado destroyed a barn and another structure, tearing roofs from some buildings and moving others from their foundation.

Event 273: July 30, 2002

The F/EF-0 tornado developed 3 miles west of the Central Wisconsin Airport in Marathon County at 6:22 pm CST. The tornado was 100 yards wide and travelled just over 2 miles on the ground before dissipating eight tenths of a mile west of the Central Wisconsin Airport at 6:28 pm CST. The tornado caused significant tree damage on a hill east of the Wisconsin River.

Event 274: July 30, 2002

The F/EF-0 tornado formed 8.5 miles northeast of Merrill in Lincoln County at 6:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado demolished a mobile home and snapped trees and tree limbs.

Event 275: September 2, 2002

The F/EF-0 tornado touched down 5.2 miles west of Athens in Marathon County at 5:04 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile before dissipating at 5:06 pm CST. The tornado caused minimal damage.

Event 276: September 2, 2002

The F/EF-1 tornado developed 6 miles northwest of Wausau in Marathon County around 5:35 pm CST. The tornado was 200 yards wide and was on the ground for five miles before dissipating 4 miles northeast of Wausau around 5:43 pm CST. The tornado destroyed two barns, a garage and a shed. It also snapped hundreds of trees, heavily damaged 6 homes and caused minor damage to 25 others. At least two vehicles traveling on Highway 51 were blown off the road. A trailer being towed by one of the vehicles was blown over and a large road sign hit the vehicle. The driver was injured and transported to the hospital.

Event 277: September 30, 2002

The F/EF-1 tornado touched down in southeast Florence County, five and a half miles south southeast of Spread Eagle around 6:10 pm CST. The tornado was 400 yards wide and travelled seven tenths of a mile before dissipating five and a half miles southeast of Spread Eagle around 6:11 pm CST. The tornado destroyed a pole barn, a garage that was under construction and 6 to 10 outbuildings. 150 to 250 trees and power lines were downed, causing numerous power outages. The tornado tracked east-northeast across the Menominee River into upper Michigan where it continued to do damage.

Event 278: September 30, 2002

The F/EF-2 tornado developed 8 miles west of Tomahawk in Lincoln County around 6:30 pm CST. The tornado travelled approximately 3 miles to the northeast and reached a maximum width of 250 yards before dissipating four and a half miles northwest of Tomahawk around 6:35 pm CST. The tornado did significant damage, uprooting or snapping off thousands of trees along its path. A house in the path of the tornado suffered major structural damage, a camping trailer was thrown 300 feet, and a car was thrown into a tree coming to rest at least fifteen feet above the ground. Two barns were also destroyed.

Event 279: June 8, 2003

A brief F/EF-0 tornado touched down 4 miles west of Oshkosh in Winnebago County at 11:40 am CST. The tornado was 15 yards wide and travelled a tenth of a mile before dissipating.

Event 280: June 8, 2003

A waterspout (F/EF-0) was photographed about 5 miles east of Oshkosh Wittman Field in Winnebago County at 12:20 pm CST. The waterspout was 40 yards wide and travelled a half mile before dissipating 5.5 miles east southeast of Oshkosh Wittman Field. The waterspout was observed by numerous participants of a fishing tournament that was taking place on the lake (Photo by Troy Peterson).

Event 281: June 8, 2003

A waterspout (F/EF-0) was reported 4.3 miles west of Brothertown in Calumet County at 12:42 pm CST. The waterspout was 40 yards wide and travelled four tenths of a mile before dissipating 4.1 miles west southwest of Brothertown at 12:46 pm CST.

Event 282: June 8, 2003

The F/EF-0 tornado touched down 4 miles south of the Marshfield Municipal Airport in Marshfield in Wood County at 12:59 pm CST. The tornado was 50 yards wide and travelled a tenth of a mile before dissipating 4.1 miles south of the Marshfield Municipal Airport at 1:02 pm CST. The tornado tore siding from a garage, broke windows, destroyed a play house and dog house, and blew two 50 pound barrels 200 yards away.

Event 283: August 3, 2003

The F/EF-1 tornado touched down three tenths of a mile west of Potter in Calumet County around 1:59 pm CST. The tornado was 75 yards wide and was on the ground for nearly a half mile before dissipating two tenths of a mile east northeast of Potter around 2:03 pm CST. The tornado damaged several houses, outbuildings and trees around Potter.

Event 284: May 23, 2004

The F/EF-0 tornado touched down 2.7 miles east of Reedsville in Manitowoc County at 5:47 am CST. The tornado was 75 yards wide and was on the ground for a tenth of a mile. The tornado damaged shingles and siding on a house and snapped trees and large branches.

Event 285: June 23, 2004

The F/EF-1 tornado touched down 3 miles west northwest of Almond in Portage County around 6:46 pm CST. The tornado was 25 yards wide and was on the ground for a mile and a half before dissipating 3 miles north northeast of Almond around 6:48 pm CST. The tornado knocked down several trees and a fence, damaged the roof of a house and damaged some outbuildings.

Event 286: June 23, 2004

The F/EF-0 tornado touched down in Whiting in Portage County at 6:47 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado caused minor tree damage in an industrial park in Whiting. Eyewitnesses observed water being sucked out of a pond at the same time as doors to an office was sucked open.

Event 287: June 23, 2004

The F/EF-1 tornado touched down 3 miles southeast of Blaine in southeastern Portage County around 6:53 pm CST. The tornado was 100 yards wide and travelled two and a half miles to 5 miles east southeast of Blaine at 6:56 pm CST. The tornado downed trees and overturned an irrigation system.

Event 288: June 23, 2004

The F/EF-2 tornado originally touched down in southeast Portage County. The tornado then strengthened as it moved into southwest Waupaca County 9 miles west of Waupaca around 6:56 pm CST. The tornado was 125 yards wide and travelled 11 miles before dissipating 2 miles southwest of Lind Center at 7:06 pm CST. The tornado scoured asphalt off a road, destroyed a barn, sheared off the top 50 feet of a silo crushing 3 calves, damaged a sheet metal outbuilding, and killed 3 sheep. The tornado tore the roof from a house and destroyed the garage, overturned a semi trailer and moved it 50 feet. Many trees were snapped off or uprooted. Some of the debris from this tornado landed several miles to the east in the Fremont area of Waupaca County.

Event 289: June 23, 2004

The F/EF-1 tornado touched down in at least four locations from Little Chute to Kaukauna in Outagamie County between 8 pm and 8:08 pm CST. The tornado was 100 yards wide and travelled 3.5 miles before dissipating. The tornado toppled or twisted large trees, ripped parts of the roofs from residential and commercial buildings, destroyed storage sheds and an old barn. Semi-trailers were overturned, some of them onto other vehicles.

Event 290: June 23, 2004

A brief F/EF-0 tornado touched down on the northwest side of Green Bay in Brown County at 8:27 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile. The tornado caused some tree damage.

Event 291: July 11, 2004

A brief F/EF-0 tornado touched down 8 miles southwest of Harshaw in Oneida County at 2:42 pm CST. The tornado was 60 yards wide and was on the ground for two tenths of a mile before dissipating at 2:45 pm CST. The tornado topped many trees onto power lines and damaged a pontoon boat.

Event 292: July 11, 2004

A brief F/EF-0 tornado touched down one mile west of Goodnow in Oneida County at 3:43 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 293: July 11, 2004

A brief F/EF-0 tornado touched down in Irma in Lincoln County at 3:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 294: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 295: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 296: July 11, 2004

A brief F/EF-0 tornado touched down 4 miles west of Tomahawk in Lincoln County at 4:40 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 297: July 13, 2004

The F/EF-1 tornado touched down 1.4 miles northwest of Clark Mills in Manitowoc County around 2:40 pm CST. The tornado was 500 yards wide and travelled just over four miles before dissipating 2.8 miles southeast of Clark Mills around 2:52 pm CST. The tornado caused extensive damage two farms. The tornado destroyed two garages, two barns, two milking parlors and three silos. The tornado also destroyed 45 calf hutches and about 80 acres of alfalfa. The tornado snapped and uprooted trees and carried a calf about a half a mile away where it was found still alive.

Event 298: May 6, 2005

The F/EF-0 waterspout touched down 7 miles east southeast of Oshkosh Wittman Field in Winnebago County at 3:24 pm CST. The waterspout was 50 yards wide and was on the ground for eight tenths of a mile before dissipating 7.8 miles east southeast of Oshkosh Wittman Field at 3:25 pm CST.

Event 299: May 6, 2005

The F/EF-0 waterspout touched down 5 miles west southwest of Brothertown in Calumet County at 3:25 pm CST. The water spout was 50 yards wide and was on the water for over a mile and a half before dissipating 3.7 miles southwest of Brothertown at 3:29 pm CST.

Event 300: June 4, 2005

The F/EF-0 touched down one mile east of Auroraville in Waushara County at 1:54 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile. No significant damage was noted from this tornado.

Event 301: June 4, 2005

The F/EF-0 touched down 2 miles northwest of Borth in Waushara County at 2:05 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No significant damage was noted from this tornado.

Event 302: June 4, 2005

The F/EF-0 touched down 4 miles west of Edgar in Marathon County at 3:27 pm CST. The tornado was 75 yards wide and was on the ground for 1.2 miles before dissipating four and a half miles west northwest of Edgar at 3:29 pm CST. No damage was noted in the month storm report for this tornado.

Event 303: June 4, 2005

The F/EF-0 touched down a mile west of Athens in Marathon County at 3:39 pm CST. The tornado was 100 yards wide and was on the ground for 1.3 miles before the tornado dissipated a mile and a half northwest of Athens at 3:42 pm CST. The tornado downed some trees, flattened a barn and tore the roof from another barn.

Event 304: June 4, 2005

The F/EF-0 touched down 4 miles south of Athens in Marathon County at 5:06 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 305: June 4, 2005

The F/EF-0 touched down 3 miles west of Marathon in Marathon County at 5:20 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 306: June 4, 2005

A waterspout (F/EF-0) touched down on Lake Michigan 5 miles east of Kewaunee in Kewaunee County at 5:30 pm CST.

Event 307: June 4, 2005

The F/EF-0 touched down 7 miles south of Hogarty in Marathon County at 7:18 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 308: June 9, 2005

A waterspout (F/EF-0) touched down 5 miles southeast of Oshkosh on Lake Winnebago in Winnebago County at 5:40 pm CST. The waterspout was 40 yards wide and travelled 3 miles before dissipating 5 miles east of Oshkosh at 5:50 pm CST.

Event 309: June 9, 2005

A waterspout (F/EF-0) touched down 4 miles northwest of Stockbridge on Lake Winnebago in Calumet County at 6:14 pm CST. The waterspout was 25 yards wide and was on the water for a tenth of a mile.

Event 310: June 10, 2005

The F/EF-0 tornado touched down 4 miles west of Mosinee in Marathon County at 1:03 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was noted in the monthly storm data.

Event 311: June 10, 2005

The F/EF-0 tornado touched down one mile north of Winneconne in Winnebago County at 3:05 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 312: June 10, 2005

The F/EF-0 tornado touched down 2 miles west of Clintonville in Waupaca County at 3:10 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 313: June 10, 2005

A waterspout (F/EF-0) was reported 4 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:10 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 314: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:22 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 315: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:48 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 316: June 13, 2005

The F/EF-0 tornado touched down 4.1 miles north northeast of Black Creek in Outagamie County at 2:49 pm CST. The tornado was 75 yards wide and was on the ground two tenths of a mile before it dissipated 4.1 miles north northeast of Black Creek at 2:50 pm CST. The tornado knocked down a tree and caused damage to shingles at a residence.

Event 317: August 18, 2005

The F/EF-0 tornado touched down 6 miles west southwest of Wautoma in Waushara County at 5:32 pm CST. The tornado was 80 yards wide and was on the ground for two miles before dissipating 3.7 miles south of Wautoma at 5:36 pm CST. The tornado snapped off or uprooted many trees and caused damage to a few buildings and some farm equipment. A tree fell onto a large pole building, causing major damage to one of its sides. A porch at a residence was destroyed by a fallen tree limb; while a portion of the metal roof of a barn was torn from it and thrown about 200 feet. An irrigation system was also damaged.

Event 318: August 18, 2005

The F/EF-0 tornado touched down 4 miles south southwest of New London in Waupaca County at 6:38 pm CST. The tornado was 40 yards wide and was on the ground for 1.2 miles before dissipating 3.4 miles southwest of New London at 6:41 pm CST. The tornado snapped large trees and a few buildings in its path. The tornado shifted a large barn, destroyed a small metal shed and threw it about a quarter of a mile. An outbuilding was overturned and thrown 30 to 40 feet into a stand of trees.

Event 319: August 18, 2005

The F/EF-0 tornado touched down four and a half miles west of Neenah in Winnebago County at 6:40 pm CST. The tornado was 50 yards wide and was on the ground for four miles before dissipating 2.6 miles northwest of Neenah at 6:48 pm CST. The tornado downed trees, stripping some siding from a home and destroying a corn crib.

Event 320: August 18, 2005

The F/EF-1 tornado developed 6 miles east northeast of Wrightstown in Brown County around 7:45 pm CST. The tornado was 100 yards wide and travelled one mile before dissipating 6.8 miles east northeast of Wrightstown at 7:49 pm CST. About 75 trees were downed or snapped and several structures along its path were destroyed. Two wooden garages were destroyed and debris scattered for several hundred feet. The walls of a house that were under construction were blown down. A part of a steel roof of a commercial building was damaged. A heavy wooden bench was picked up from the front porch and thrown several hundred feet away behind the house. The tornado was part of a record tornado outbreak in Wisconsin.

Event 321: August 18, 2005

The F/EF-1 tornado developed six and a half miles south southwest of Manitowoc in Manitowoc County at 8:35 pm CST. The tornado was 100 yards wide and travelled one and a half miles before dissipating 5.7 miles south of Manitowoc at 8:39 pm CST. The tornado damaged a farm, snapped or uprooted around 50 large trees while several hay wagons and trailers were overturned. A concrete silo was destroyed and another damaged. The roof of a barn sustained extensive damage. Part of the barn and silo were found in trees a third of a mile away. The tornado was part of a record tornado outbreak in Wisconsin.

Event 322: September 13, 2005

The F/EF-0 tornado touched down in De Pere in Brown County at 5:09 pm CST. The tornado was 50 yards wide and the brief touchdowns lasted for 1.9 miles before the tornado dissipated in Allouez just north of Heritage Hill State Park at 5:12 pm CST. The tornado's occasional brief touchdowns topped numerous trees. Some of the trees caused damage to buildings and vehicles when they fell. The tornado caused little direct structural damage to any buildings.

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Event 323: June 18, 2006

A waterspout (F/EF-0) was reported 3 miles northwest of Sister Bay in Door County at 4:43 pm CST.

Event 324: June 24, 2006

A waterspout (F/EF-0) was reported 4 miles west of Sherwood on Lake Winnebago in Calumet County at 4:14 pm CST. The waterspout remained nearly stationary for a minute before dissipating.

Event 325: September 29, 2006

A waterspout (F/EF-0) was reported off Door County, from Chambers Island to 12 miles southeast of Cedar River, Michigan around 9:20 am CST. The last report of the waterspout was around 9:55 am CST.

Event 326: June 3, 2007

A brief landspout (F/EF-0) was reported about 2 miles east southeast of Shawano in Shawano County at 6:11 pm CST. The landspout lasted 20 seconds and was observed and photographed. No damage was reported.

Event 327: June 7, 2007

There were five tornadoes on this date across north central and northeast Wisconsin. The F/EF-2 tornado developed nine tenths of a mile west Peplin in Marathon County around 3:01 pm CST. The tornado travelled just over 7 miles and reached a maximum width of 225 yards before it dissipated nearly a mile north of Pike Lane around 3:14 pm CST. At least 8 homes, 10 barns, and numerous trees were damaged.

Event 328: June 7, 2007

The F/EF-0 tornado touched down 2.2 miles south of Wisconsin Rapids in Wood County at 3:26 pm CST. The brief tornado was seen by a storm chaser before dissipating 2.1 miles south of Wisconsin Rapids. The same storm also produced hail up to 5.5 inches in diameter in Port Edwards and Wisconsin Rapids.

Event 329: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

Event 328: June 7, 2007 continued

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph.

Picture on left: Tornado passing south of the town ship of White Lake in Langlade Co. Picture courtesy: WAOW-TV.

Picture on right*:* Tornado as seen from HWY T in southwest Oconto Co. Picture courtesy of the Wisconsin Department of Natural Resources.

Event 328: June 7, 2007 continued

Path of tornado damage: Viewed by Aqua MODIS satellite. Courtesy: ERSC, UW-Madison.

June 7, 2007: Tornadoes and Monster Hail

Picture above: Damage at the Bear Paw Resort.

Picture on the left: More damage at the Bear Paw Resort.

Picture on the right: This is what remained of a double-wide mobile home in the town of Riverview. The owner heard the Tornado Warning and went into the bathtub (circled in large view), and escaped without a scratch!

Looking northeast across Hwy 64 in Oconto Co. The damage path was as much as 3/4 mile wide in this area. Picture is courtesy of the Wisconsin DNR

Event 330: June 7, 2007

The F/EF-1 tornado developed a half mile west of Cedarville in Marinette County around 4:37 pm CST. The tornado was 200 yards wide and travelled three miles before it dissipated 2.5 miles east northeast of Cedarville around 4:40 pm CST. The tornado tore a significant portion of the roof from one home, snapped a few trees and uprooted numerous others. A manufactured home was moved off its foundation and down an embankment.

Event 331: June 7, 2007

The F/EF-1 tornado developed three and a half miles west of Harmony in Marinette County around 5:16 pm CST. The tornado was 200 yards wide and travelled 3.6 miles before dissipating 1.2 miles north of Harmony, or 2.9 miles south-southwest of Porterfield around 5:20 pm CST. One person was injured by flying debris as she sought refuge in their home. The tornado flattened a barn, tore a significant part of a sheet metal roof from an outbuilding, blew in a garage door and tore part of a roof deck over the garage from a home that was under construction.

Event 332: June 20, 2007

A waterspout (F/EF-0) was reported 6 miles northwest of Ellison Bay in Door County at 4:06 pm CST.

Event 333: May 25, 2008

The F/EF-0 tornado touched down 3 miles east northeast of Knowlton in Marathon County at 8 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile before dissipating at 8:01 pm CST. Several apple trees were damaged in a narrow path. A pine tree fell on a shed as well. The tornado was on the ground for less than 30 seconds

Event 334: July 19, 2008

A brief F/EF-1 tornado touched down 3.8 miles west northwest of Menasha in Winnebago County around 10:44 pm CST. The tornado was 40 yards wide and travelled a half a mile before it dissipated 3.4 miles west northwest of Menasha at 10:45 pm CST. The tornado produced sporadic damage along a narrow path almost a half a mile long. An apartment complex sustained the heaviest damage. Four buildings were affected, two of which lost parts of their roofs.

Event 335: July 29, 2008

The F/EF-0 tornado briefly touched down 3.6 miles northwest of Granite Heights in Marathon County at 3:27 pm CST. The tornado was 15 yards wide and travelled a tenth of a mile. Law enforcement witnessed the brief tornado touchdown north of Brokaw near the Lincoln County border. No damage was reported.

Event 336: July 29, 2008

The F/EF-0 tornado briefly touched down 6.2 miles north northwest of Kalinke in Marathon County at 3:59 pm CST. The tornado was 25 yards wide and travelled a quarter of a mile before dissipating at 4 pm CST. The tornado touched down just south of County Line Road near County Road Q. Several trees in an open field were knocked over.

Event 337: July 29, 2008

The F/EF-0 tornado touched down 4.2 miles southeast of Nasonville in Wood County at 5:44 pm CST. The tornado was 25 yards wide and travelled a mile and a half before dissipating 4.7 miles west of Bethel at 5:49 pm CST. The tornado touched down north of Pittsville, tearing leaves and twigs from tops of trees. The tornado was seen by a county sheriff.

Event 338: May 4, 2010

The F/EF-1 tornado touched down 2.7 miles southeast of Zittau in Winnebago County around 6:10 pm CST. The tornado was 100 yards wide and travelled seven tenths of a mile before it dissipated 2.7 miles west of Winchester at 6:12 pm CST. The tornado snapped numerous pine trees in a wooded area and threw a gazebo into the side of a house. The tornado also destroyed a 100 year old barn.

Event 339: May 4, 2010

The F/EF-0 tornado touched down 2.2 miles south southwest of Winchester in Winnebago County at 6:13 pm CST. The tornado was 100 yards wide and travelled 3.4 miles before dissipating 0.8 miles north northwest of Larsen at 6:17 pm CST. The tornado damaged several structures. It destroyed a shed, swirling 2 by 4's in the air. The 2 by 4's struck a house, damaging the roof. The tornado threw a trailer about 200 yards into a field and ripped siding off a garage. A small camper was knocked over.

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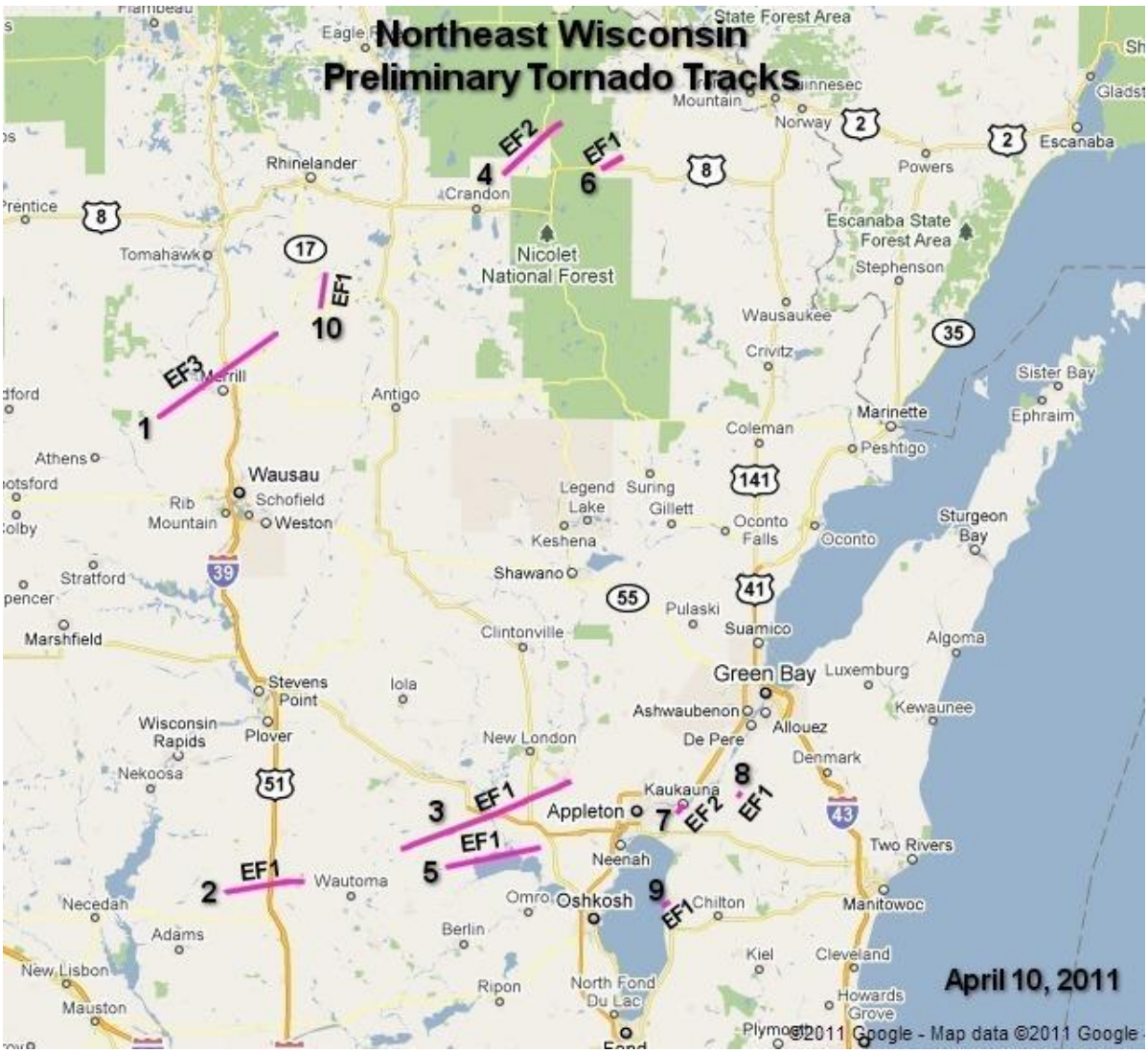
Event 340: May 4, 2010

The F/EF-0 tornado touched down 2.5 miles west southwest of Veedum in Wood County at 4:18 pm CST. The tornado travelled a quarter of a mile and was 50 yards wide before it dissipated 2.2 miles west southwest of Veedum. The brief tornado was reported by the public and confirmed by local emergency management about 5 miles west of Pittsville. A dozen trees were knocked down and several large tree limbs fell onto a house. Wind speed estimated at 80 mph.

Event 341: August 20, 2010

The F/EF-1 tornado touched down 2 miles southeast of Greenleaf in Brown County at 3:20 pm CST. The tornado travelled just over 1.25 miles and was 75 yards wide before dissipating 2.7 ESE of Greenleaf at 3:22 pm CST. When the tornado initially touched down, several trees were snapped and uprooted. The tornado then destroyed a relatively new barn constructed of metal wall panels and roof. Pieces of the roof and wall were strewn over 100 yards from the site. About 50 to 100 yards on either side of the damaged barn small outbuildings and trees were untouched. The tornado continued east-northeast to another farm and heavily damaged a metal building which contained hay bales. Large parts of the metal roof were thrown over 200 yards. Numerous trees along the patch were snapped or uprooted. Estimated maximum winds were 90 mph. The tornado dissipated just north of the Holland State Wildlife Area.

RECORD BREAKING TORNADO OUTBREAK OF APRIL 10, 2011

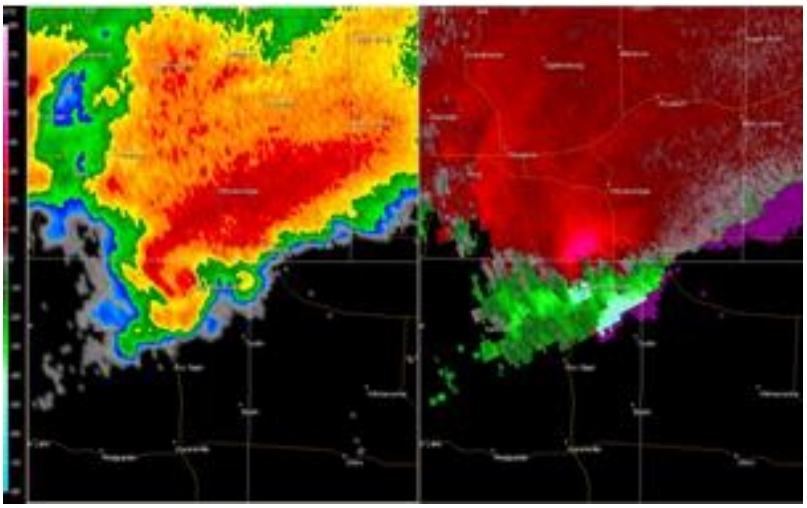


TORNADO REFERENCE GUIDE - CHRONOLOGICAL ORDER
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 342: April 10, 2011

The F/EF-3 tornado developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards.

Event 343: April 10, 2011



The F/EF-1 tornado moved out of Adams County and entered Waushara County at 5:35 pm CST about 1.8 miles northwest of Coloma. The worst damage occurred just inside the Waushara County line. A mobile home roof was torn off and roof damage was noted to several homes. The average width of the tornado was about 80 yards. The tornado dissipated 2.3 miles west southwest of Winchester.

Event 344: April 10, 2011

The F/EF-1 tornado formed about 5 miles south of Parrish around 5:50 pm CST and moved just east of north for a little over five miles. The tornado affected about 1600 acres of hardwood and softwood trees. It was estimated that over one million trees were snapped, uprooted or suffered serious damage. The loss to timber alone is estimated at over one million dollars. One cabin was destroyed by fallen trees. The tornado was seen by a storm chaser at 5:55 pm CST. The average width of the tornado was 250 yards.

Event 345: April 10, 2011

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed with the debris strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST. The tornado, which was not on the ground the entire time, damaged a couple of farm buildings just south of Hortonville before it dissipated. One of the buildings lost part of its roof. The average width was 100 yards.

Event 346: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.

Event 347: April 10, 2011

The F/EF-1 tornado developed 0.3 miles northwest of Poy Sippi, then moved east-northeast over the north shore of Lake Poygan. The tornado then entered Winnebago County at 7:04 pm CST. In Waushara County, the tornado damaged a house and destroyed a barn in the Poy Sippi area. Another barn was flattened near the north shore of Lake Poygan. Many pine trees were uprooted or snapped along the path of the storm. The average path width in Waushara County was 100 yards. In Winnebago County, the tornado moved along the north shore of Lake Poygan, causing most of the damage near Boom Bay on the northeast shore of Lake Poygan. Two homes were heavily damaged as portions of their roofs were partially ripped off. Several other houses sustained lesser damage in this area. In addition, two small mobile homes were rolled on their side and many trees were uprooted or snapped. The tornado dissipated about 2 miles west of Winchester, although damage occurred east and southeast of this location from straight-line thunderstorm winds. The average path width in Winnebago County was 100 yards.

Event 348: April 10, 2011

The F/EF-1 tornado (2nd tornado on this day) formed in Forest County about four miles west of Armstrong Creek at 7:03 pm CST. The tornado snapped and uprooted trees and damaged two houses. One of the houses sustained significant roof damage as the tornado moved across the area. The average width of the tornado was 125 yards.

Event 349: April 10, 2011

The F/EF-2 tornado touched down in the southwest side of Kaukauna near County Road CE at 7:43 pm CST. The tornado cut through the center of a subdivision as it moved north-northeast to near the Fox River before lifting off the ground. Seven homes were destroyed, 24 homes and four businesses sustained major damage and 160 other homes sustained minor damage. Several houses lost large sections of their roofs in the hardest hit area of the city. The average path width was 125 yards.

Event 350: April 10, 2011

A brief F/EF-1 tornado touched down about a mile and a half south of Greenleaf. The tornado damaged the tops of two silos and then ripped the roof off a barn. Average width of the tornado was 75 yards.

Event 351: April 10, 2011

A brief F/EF-1 tornado moved off Lake Winnebago and onshore south of Stockbridge just before 8 pm CST. The waterspout was seen as it moved onshore, damaging two homes. A three season room on one of the houses was ripped off the structure. The tornado moved northeast and tore a section off the roof of a large outbuilding. The tops of trees were snapped in two areas along the path of the tornado. The average width of the tornado was 75 yards.

Event 352: May 22, 2011

A waterspout (F/EF-0) was observed over Lake Michigan about 5 miles northeast of Algoma.

Event 353: May 22, 2011

The F/EF-1 tornado moved out of Juneau County at 5:03 pm CST and moved across southern Wood County. The storm hit a campground on the east shore of the Wisconsin River about three miles south of Nekoosa. Over 100 pine trees were snapped and uprooted on the campground, some two feet in diameter. Several camper vehicles were damaged by fallen trees. The tornado was seen by campground visitors just before 5:15 pm CST. The tornado continued east-northeast and snapped or uprooted hundreds of additional trees south of Wisconsin Rapids. The storm damaged at least six homes and several other buildings about six miles south-southeast of Wisconsin Rapids. One of the houses lost the entire roof of a garage. A woman was in the garage at the time. She sustained injuries when the garage fell on the truck that she was taking shelter in. This area experienced a high-end F/EF-1 damage with winds at least 95 to 105 mph. The tornado entered Portage County around 5:20 pm CST. The tornado moved across mainly farmland. The twister continued to snap trees and overturn agricultural irrigation systems. About six miles south of Plover, a nearly half-mile long row of power poles were bent over. The tornado crossed Interstate 39 at Coddington Road two miles west of Keene. The tornado grew to nearly 700 yards wide as it passed just north of Keene and heavily damaged a farmstead. A silo was damaged and a barn was flattened. Several outbuildings were also damaged or destroyed. Along the path, at least two dozen irrigation systems were overturned and damaged resulting in over one million dollars in losses. Many hundreds of trees were snapped or uprooted. This area experienced high end F/EF-1 damage with winds of 100 to 110 mph. The tornado dissipated about 9 miles southeast of Plover at 5:46 pm CST. The average width was 300 yards in Portage County.

Event 354: August 19, 2011

The F/EF-1 tornado quickly developed northwest of the city of Wausaukee during the late afternoon and moved southeast for nearly eight miles before dissipating. The twister touched down near Long Lake, snapping or uprooting hundreds of trees as it moved towards Wausaukee. A mobile home near Long Lake was heavily damaged by fallen trees, but the occupants escaped without injury. As the tornado moved into Wausaukee, it leveled another mobile home killing a 46 year old male. Two additional buildings on the property sustained damage including a house that lost part of its roof. Two semi-trailers on the property were blown over. The tornado continued southeast, damaging a baseball field and hundreds of additional trees on the east side of Wausaukee. The tornado reached the Menominee River and briefly crossed into Upper Michigan before moving back into Wisconsin and dissipating near Highway 180. One tree fell on a home near Deer Lane Road.

Event 355: August 23, 2011

The F/EF-0 tornado was witnessed by local law enforcement. The tornado touched down for less than 10 seconds in a corn field. A couple of stalks of corn were thrown in the air, but no damage was reported. The F/EF-0 tornado was estimated to have winds around 60 mph.

Event 356: August 23, 2011

The F/EF-0 tornado touched down near Briarton shortly before 6 pm CST along Shady Road in Shawano County just north of the Outagamie County line. Tall grass and a hay field were flattened in a cyclonic pattern. In addition, about a dozen trees had snapped limbed. Peak winds were estimated at 65 to 70 mph. The average path width was 50 yards.

Event 357: August 23, 2011

The F/EF-0 tornado touched down less than a mile northeast of Sherwood at 8:05 pm CST. The F/EF-0 tornado toppled two trees that damaged the roof of a house and snapped or uprooted six pine trees near Highway M. The tornado continued east-southeast moving over a swamp. Swirl marks were seen in the thick swamp grass. The tornado then hit a farm on Kesler Road. Two old barns were heavily damaged. Peak winds were estimated at 85 mph with an average width of 75 yards.

Event 358: May 24, 2012

The F/EF-0 tornado formed 3.7 miles south southeast of Marathon at 601 pm CST and rapidly move northeast before dissipating 4.8 miles east northeast of Marathon at 6:07 pm. About 100 trees sustained large broken branches or were snapped by the tornado. No structures were damaged. The average path width was 50 yards.

Event 359: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:10 pm and 12:20 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 360: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:25 pm and 12:35 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 361: September 18, 2012

A brief (F/EF-0) waterspout was observed on the waters of the Bay of Green Bay three miles west of Sister Bay around 5:01 pm CST. The time of the event was estimated based on the time of 911 calls. A strong upper level trough and cold air aloft produced conditions favorable for waterspout formation on the waters of Green Bay.

Event 362: July 9, 2013

A tornado (F/EF-0) touched down 0.5 NE of Schultz, or about six miles south of Irma in Lincoln County at 1:59 pm CST. The tornado moved east for about 4.1 miles and was 100 yards wide (average width was 75 yards). A few trees and power lines were knocked down. The tornado dissipated 3.9 miles west of Bloomville at 2:04 pm CST.

Event 363: July 9, 2013

A tornado (F/EF-0) touched down 10.8 miles south of Parrish in Langlade County (near the Lincoln / Langlade County line) around 2:32 pm CST. The tornado traveled east for about nine and a half miles, although the tornado track was not continuous. The maximum width of the tornado was 100 yards, with an average width of 75 yards. The tornado damage was to trees and tree limbs. The tornado dissipated 3.1 miles west of Deerbrook at 2:56 pm CST.

Event 364: July 9, 2013

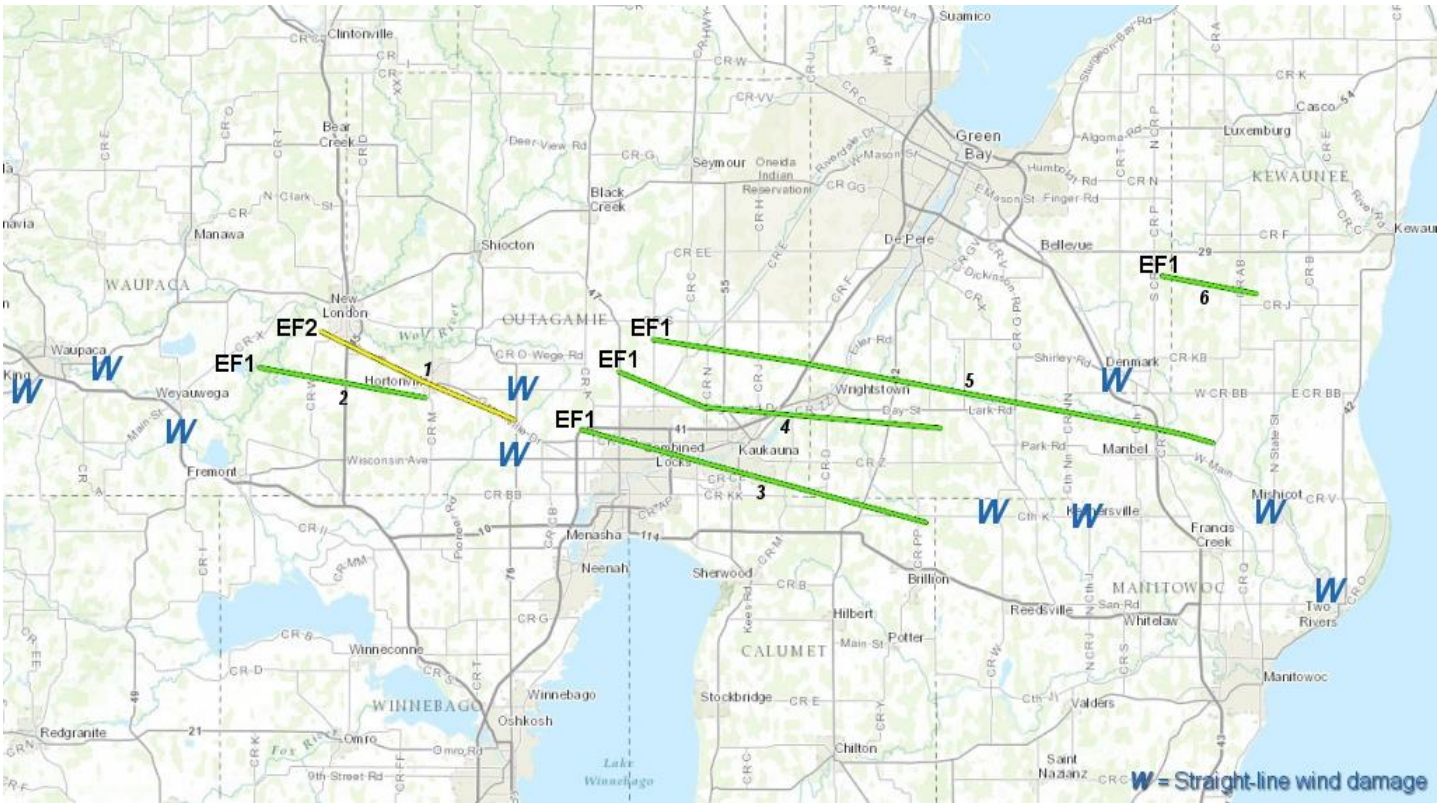
A tornado (F/EF-0) touched down 4.2 miles south of Bancroft in Portage County around 4:44 pm CST in an open field just west of Interstate 39. The tornado was observed by a storm spotter and did no damage. The maximum width was 25 yards and traveled less than two tenths of a mile before dissipating at 4:45 pm CST.

Event 365: July 9, 2013

A tornado (F/EF-0) touched down about four and a half miles north northeast of Oconto in Oconto County at 6:40 pm CST. The tornado was observed by an eyewitness just east of Highway 41 near Swede Town Road and County Road A. The tornado moved east for about a mile and half toward the bay before dissipating at 6:54 pm CST. Dozens of trees were snapped and uprooted, and also blew over a recreational vehicle trailer along its path. The maximum width of the tornado was one hundred yards with an average width of seventy-five yards.

TORNADO REFERENCE GUIDE - CHRONOLOGICAL ORDER
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 366: August 6, 2013

The first of six late night tornadoes to strike Northeast Wisconsin on this date, The (F/EF-1) tornado touched down four miles north northeast of Partridge Lake in Waupaca County at 11:22 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado hit a campground, blowing several camper trailers over. Two people sustained minor injuries at the campground. Over one hundred trees were snapped or uprooted along the path in Waupaca County. The tornado moved into Outagamie County about 3.1 miles south of New London at 11:26 am CST. The tornado damaged or uprooted trees as it moved across Outagamie County. Based on radar analysis, the circulation of this tornado may have merged with the other tornado that was occurring concurrently in the county near Hortonville. The tornado travelled 9.8 miles before dissipating eight tenths of a mile west southwest of Hortonville at 11:30 pm CST. The maximum width of the tornado in Outagamie and Waupaca Counties was 125 yards, with an average width of 75 yards in both counties.

Event 367: August 6, 2013

The second of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-2) tornado touched down 1.2 miles west of New London in Waupaca County at 11:24 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado struck a church (figure 1 below), causing severe damage. A large portion of the roof collapsed, causing failure to two walls. A wall on the new portion of the church was pushed in. In addition, hundreds of trees were snapped or uprooted. Several homes along the path sustained damage, mainly from fallen trees. The average path width in Waupaca County was 100 yards with a maximum width of 175 yards. The tornado now an EF-1 entered Outagamie County at 11:25 pm CST a little over a mile southeast of New London, damaging or uprooting hundreds of trees along the path. Several homes in a two block area of Hortonville were damaged (roof and siding) by falling trees. The average path width was 100 yards with a maximum width of 175 in Outagamie County. The tornado traveled 13.1 miles before dissipating four tenths of a mile west southwest of Greenville.

Figure 1: Church (southeast New London damaged by a tornado. Peak winds were estimated at 115 to 120 mph.

Event 368: August 6, 2013

The third of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down four tenths of a mile west of Mackville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado caused a barn to collapse, and heavily damaged a boat showroom in Little Chute. Another barn lost part of its roof northwest of Kaukauna. Damage to trees was sporadic as it moved through Outagamie County. The maximum width of the tornado in Outagamie County 175 yards, with an average width of one hundred yards. The tornado moved into southern Brown County, about two miles southwest of Wrightstown around 11:48 pm CST. In Brown County, the tornado uprooted or snapped dozens of trees as it moved east, just south of Greenleaf. A house lost an attached garage when winds blew in the garage door and caused a large portion of the garage roof to lift off. The walls of a nearby building collapsed. The maximum width of the tornado in Brown County was 175 yards and average with was 125 yards. The tornado travelled 19.2 miles before dissipating 2.7 miles west of Morrison at 23:53 pm CST.

Event 369: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.

Event 370: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the county. The tornado in Manitowoc County has a maximum width of 250 yards and average width of 125 yards. The tornado travelled thirty-three miles across three counties before dissipating.

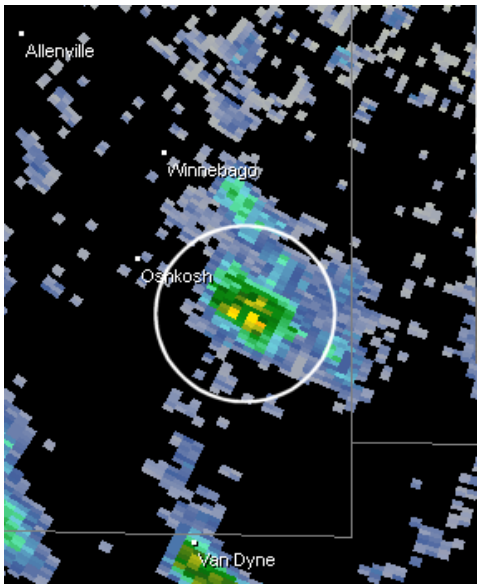
Event 371: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

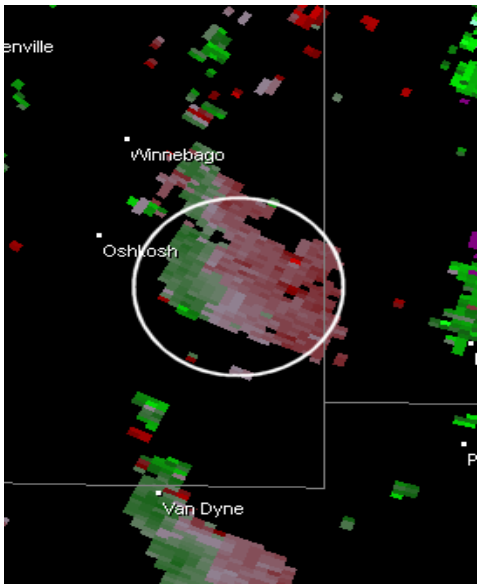
Event 372: July 27, 2014

A very weak and brief waterspout formed around 6:05 pm CST under a rain shower over southern Lake Winnebago, about 5 miles southeast of Oshkosh. The waterspout (photo below) was on the water for a just a few seconds and then dissipated. The parent funnel was seen by hundreds of people across the area. No damage occurred.

Photograph submitted to NWS.



Radar image: Green Bay radar.



Velocity image: Green Bay radar.

Event 373: August 18, 2014

A tornado developed around 3:23 pm CST, causing minor damage as it moved east near Shady Lane a little over three miles northeast of Winchester in northern Winnebago County. The weak tornado EF-0 caused two single wood power poles to partially lean in saturated soil and knocked over a few trees and limbs. Swirl marks could be seen in a field of tall grass. The tornado was not in contact with the ground during the entire path length (a little over two miles). The maximum width of the tornado was 50 yards with estimated winds of 65 to 75 mph before dissipating around 3:25 pm CST.

Event 374: May 17, 2015

The F/EF-0 tornado touched down at 2:31 pm CST just over a mile and a half west-southwest of Morgan in Shawano County. The tornado produced intermittent damage along a nearly five mile long path, dissipating at 2:40 pm CST just over three miles northeast of Morgan. At least a dozen trees along the path sustained damaged and a barn lost several shingles. The tornado had a maximum width of 75 yards.

Event 375: June 15, 2015

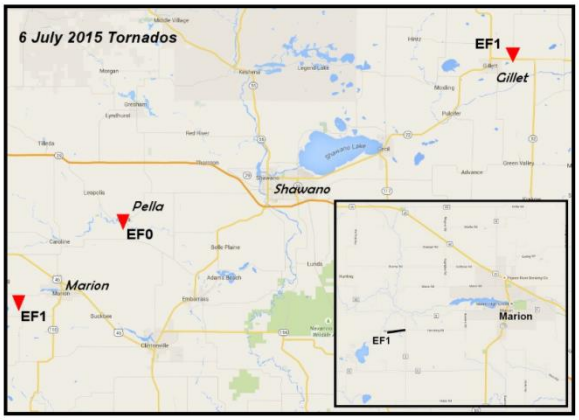
A weak F/EF-0 tornado touched down at 2:31 pm CST a mile and a half north-northwest of Glenmore in Brown County. The tornado traveled just over a quarter of a mile and was 25 yards wide before the tornado dissipated 1.4 miles north-northwest of Glenmore. A swing set was toppled and a small metal shed was pushed twenty feet.

Event 376: July 6, 2015

An F/EF-1 tornado touched down at 2:31 pm CST 3.4 miles west of Marion (see map next page) in Waupaca County. The tornado travelled three quarters of a mile and had a maximum width of 75 yards wide before dissipating 2.7 miles west of Marion at 2:40 pm CST. The tornado heavily damaged a bard and adjacent garage. The roof of a nearby house was damaged and winds of another home were broken. At least two dozen trees were uprooted or snapped. The average path width was 50 yards.

Event 376: July 6, 2015 continued

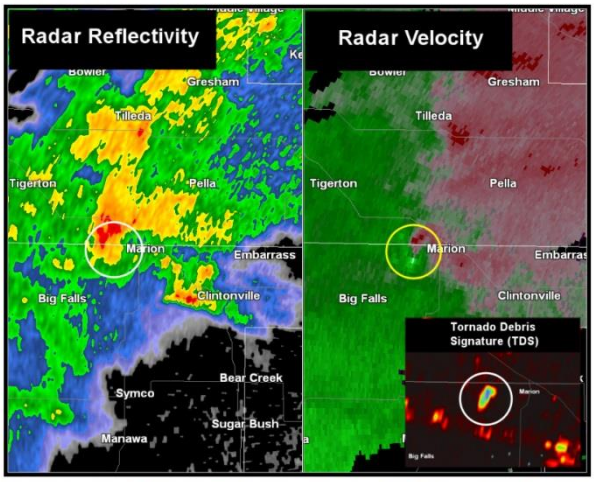
This was one of three tornadoes that touched down in northeast Wisconsin on this date. What was unusual about this event was there was no thunder noted with the tornadoes (very rare!). The radar image shows in the intense rotation west of Marion.



***Preliminary** Tornado Map (above). Red triangles denote **approximate** location of brief tornado touchdowns. Inset above denotes the location of the EF1 tornado west of Marion, Wisconsin.*

Tornado	Begin	End	Path
Marion EF1	4:38 PM, 3 W Marion	4:40 PM, 2.6 W Marion	Length: 0.4 mi Width: 75 yards
Pella EF0	5:03 PM, 2 E Pella	5:03 PM, 2 E Pella	Length: 0.1 mi Width: 25 yards
Gillett EF1	5:56 PM, 2 E Gillett	6:03 PM, 3 ENE Gillett	Length: 2.2 mi Width: 50 yards

The first tornado developed just ahead of the main line of showers over northern Waupaca County. This storm quickly attained supercell characteristics and generated a brief **EF1** tornado about three miles west of Marion in extreme northern Waupaca County (***see map insert above* and radar images below**).



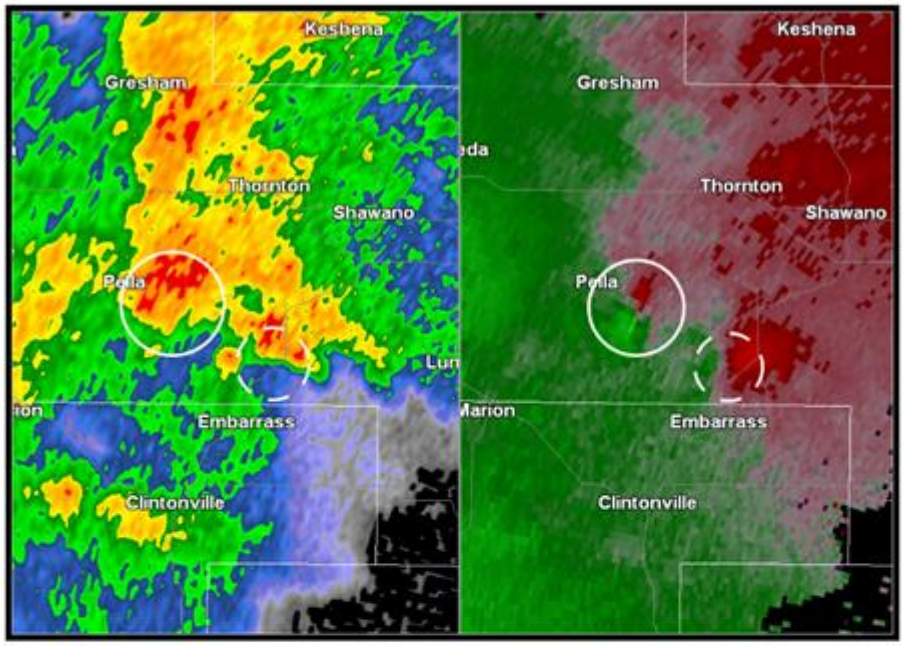
Radar reflectivity (above Left) and radar velocity (above right) around time of the EF1 tornado west of Marion. Insert in the above image is the dual polarization correlation coefficient (CC) product denoting the location of debris produced by the tornado.

Here are some damge photos from the Marion tornado:

Event 377: July 6, 2015

An F/EF-0 tornado touched down at 4:03 pm CST just over a mile east of the Pella Airport in Shawano County. The tornado travelled nearly a tenth of a mile and was 25 yards wide before dissipating at 4:04 pm CST. The tornado tore off part of a barn and sent wooden pallets into a nearby field.

As this cell continued to move northeast into Shawano County, it produced another very weak tornado (**EF0**) that briefly touched down near Pella in central Shawano County around 5 pm CDT (***denoted by the white circle in the image below***). The dashed circle in the image below denotes a new circulation associated with a different cell that was developing to the southeast of the Pella (just north of Embarrass).



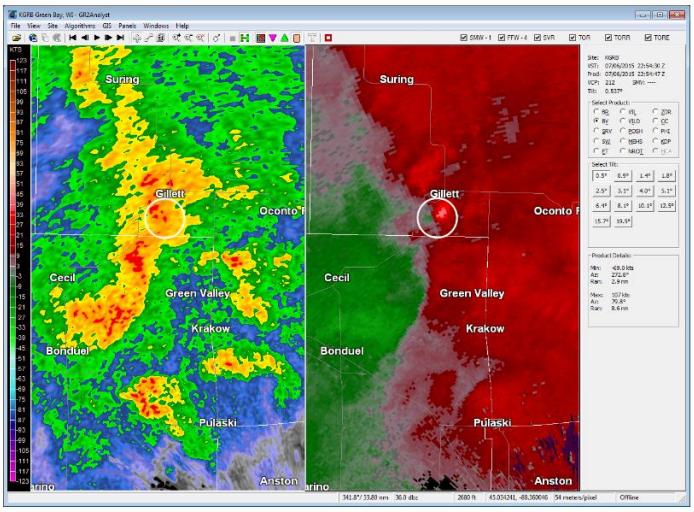
Radar reflectivity (above left) and velocity image (above right) associated with brief tornado touchdown near Pella (denoted by solid circle in the image above). Dashed circle denotes a new circulation that eventually produces a tornado near Gillett about 50 minutes later.

ere are some damge photos from the Pella tornado:

Event 378: July 6, 2015

An F/EF-0 tornado touched down at 4:56 pm CST 2.2 miles east-northeast of Gillett in Oconto County. The tornado travelled two and a quarter miles and was 50 yards wild before dissipating 2.6 miles south-southwest of Kelly Brook at 5:03 pm CST. The tornado uprooted or snapped at least twenty trees and caused minor damage to a house.

This new cell north of Embarrass continued to organize and strengthen and eventually produced an **EF1** Tornado near Gillett in western Oconto County around 555 pm CDT (***see image below***).



Radar reflectivity (above left) and velocity (above right) denoting the location of the storm that produced an EF1 tornado near Gillett around 555 pm CDT.

Here are some damge photos from the Gillett tornado:

TORNADO REFERENCE GUIDE - F/EF-5 TORNADOES

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
					No reported F/EF-5 tornadoes	

There have been no documented F/EF-5 tornadoes in the Green Bay forecast area serving 22 counties in central, north central and northeast Wisconsin.

TORNADO REFERENCE GUIDE - F/EF-4 TORNADOES

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage, Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara, Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago, Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

TORNADO REFERENCE GUIDE - F/EF-4 TORNADOES

Event 1: June 25, 1950

The F/EF-4 tornado touched down one mile west of Woodboro in Oneida County around 9 pm CST and travelled 13.1 miles to five miles northeast of Rhinelander. The tornado reached a maximum width of 880 yards. Two deaths were reported in Oneida County.

Event 2: September 26, 1951

The F/EF-4 tornado touched down 9 miles south southwest of Amherst in Portage County around 3:45 pm CST. The tornado then cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado travelled 22.3 miles and reached a maximum width of 400 yards before dissipating 2 miles southwest of Bear Creek in Waupaca County around 408 pm CST. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

Event 3: April 3, 1956

Unseasonably warm air ahead of a strong cold front triggered showers and thunderstorms across the state. The F/EF-4 tornado developed near Berlin in Green Lake County around 1:45 pm CST and travelled 11.5 miles across rural areas of southeast Waushara County near the town of Aurora; then dissipated around 1:53 pm CST two miles west of Omro in Winnebago County. The tornado was 440 yards wide. Berlin was hit the hardest with six killed and 50 injured. Severe storms killed eight people across the state on this day.

Event 4: August 19, 1968

The funnel was first observed at about 4 pm CST near Breed, but remained aloft until three miles southwest of Pound in Marinette County. The F/EF-4 tornado developed 3 miles southwest of Pound around 4:10 pm CST and travelled nearly 22 miles before dissipating in Marinette. The tornado moved east about 3 miles south of Highway 53, destroying farms near Pound and again just south of Marinette. Large hail three inches in diameter fell north of the tornado track. Two elderly brothers, John and Cecil Maloney were fatally injured as their farmhouse near Pound blew apart. A third brother James, who was in bed when the winds struck was found on some bed springs in a nearby cornfield. He was hospitalized in satisfactory condition. Two more people were injured at Marinette when the tornado struck near the airport. Nearly twenty counties were included in a series of thunderstorm warnings issued by the Weather Bureau.

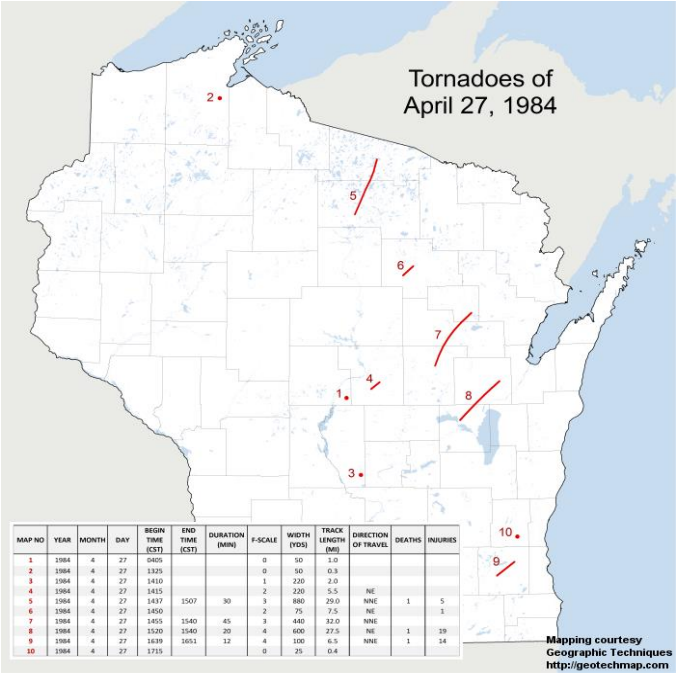
Event 5: April 21, 1974

The F/EF-4 tornado first touched down 5 miles south of Ripon in Fond Du Lac County at about 2:40 pm CST. The tornado destroyed or severely damaged buildings on about 30 farms before approaching southwest Oshkosh at 2:58 pm CST. The tornado lifted 10 minutes later over northwest Oshkosh. The tornado travelled 26 miles and reached a maximum width of 200 yards. At Oshkosh, the tornado damaged 400 homes and business with 33 of the houses completely destroyed. Damage was estimated at 4.2 million dollars. In Oshkosh, thirty-five people were treated for injuries with only ten people injured seriously enough to be hospitalized.

TORNADO REFERENCE GUIDE - F/EF-4 TORNADOES

Event 6: April 27, 1984

The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. This outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950.

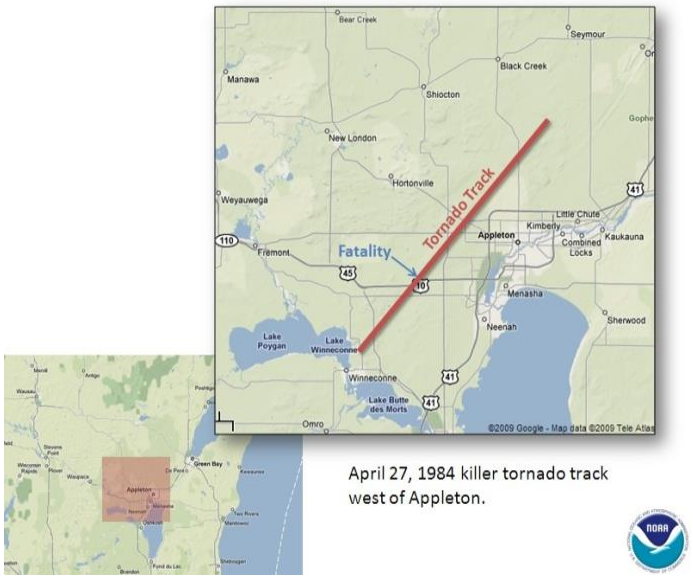


MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0405			0	50	1.0			
2	1984	4	27	1325			0	50	0.3			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	880	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	19
9	1984	4	27	1639	1651	12	4	100	6.5	NNE	1	14
10	1984	4	27	1715			0	25	0.4			

The Fox Valley Tornado

Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado travelled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph).



April 27, 1984 killer tornado track west of Appleton.

Other tornadoes on this date across Northeast Wisconsin

In addition to the Fox Valley tornado, five other tornadoes were reported across central and northeast Wisconsin that day. An F3 tornado, with winds estimated near 140 mph, tore through Oneida and Vilas counties, killing one person south of St. Germain and injuring eight others. Another F3 tornado was reported across Waupaca, Shawano, and Menominee counties causing considerable damage. Other tornados were observed over Wood, Portage, and Langlade counties.

TORNADO REFERENCE GUIDE - F/EF-4 TORNADOES

Event 7: July 5, 1994

A powerful F/EF-4 tornado cut a short but devastating path in northern Manitowoc County from two and one half miles northwest of Maribel around 3:43 pm CST to a half mile west of Cooperstown before dissipating around 3:55 pm CST. A second small tornado also developed two miles southwest of Cooperstown and carved out a minor damage path leveling a shed and tossing a grain box 300 yards. Much of the $2.1 million in damages was inflicted by the first tornado. The tornado damaged 26 homes, 19 vehicles and one mobile home. Four heifers and two sheep were also killed. One man was injured when he was struck by a 55 gallon drum while a woman suffered minor injuries when pieces of a stone foundation fell on her. The tornado travelled three and a half miles and reached 150 yards in diameter.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	9	18	1950	1430	2 N Waupaca - Weyauwega	Waupaca
2	6	4	1958	1930-2006	6 SE Chippewa Falls to 2 NW Athens	Marathon
3	6	26	1969	1115-1130	Black Creek - 8 W Sobieski	Outagamie, Shawano, Oconto
4	12	1	1970	1015-1045	Near Medina - Rose Lawn	Outagamie, Shawano
5	9	28	1971	1400-1605	23 NE Eau Claire - Merrill	Lincoln, Marathon
6	9	28	1971	1600-1720	3 NE Brokaw - Middle Inlet	Marathon, Langlade, Oconto, Marinette
7	8	31	1977	1815	1 SW Stratford - Wausau	Marathon
8	4	27	1984	1437-1507	Fawn Lake - Star Lake	Oneida, Vilas
9	4	27	1984	1455-1540	Union (Waupaca Co) - Legend Lake	Menominee, Shawano, Waupaca
10	6	8	1985	1815-1852	Park Falls - 3 SE Monico	Oneida
11	7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	Marinette
12	8	29	1992	1910-1955	1 N Wautoma - 3 SE Poysippi	Waushara
13	8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	Door
14	6	7	2007	1531-1618	2 ENE Mattoon - 9.5 ENE Lakewood	Shawano, Langlade, Oconto
15	4	10	2011	1708-1741	2 N Hamburg – 1 SW Bloomville	Marathon, Lincoln

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

Event 1: September 18, 1950

The F/EF-3 tornado touched down in Waupaca County 2 miles north of Waupaca around 2:30 pm CST and travelled to Weyauwega before dissipating. Storm data was not available at this time and I could not find any additional newspaper articles on this tornado event.

Event 2: June 4, 1958

According to several sources, it appears that there was a long tracked F/EF-3 tornado that developed 6 miles southeast of Chippewa Falls in Chippewa County around 7:30 pm CST. The tornado then moved to the east northeast for just over 59 miles before dissipating 2 miles northwest of Athens in Marathon County around 8:06 pm CST. The tornado reached a maximum width of 880 yards. Newspaper accounts indicated there were three separate tornadoes during this event. The tornado or tornadoes killed 28 people across western Wisconsin. Four people died in Chippewa Falls and near Menominie while two deaths were reported Knapp and Boyd in western Wisconsin.

Event 3: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 4: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina in Outagamie County. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards, travelled 30 miles before dissipating around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

Event 5: September 28, 1971

A cold front moving through the state triggered scattered thunderstorms across the state. On this date, two long tracked F/EF-3 tornadoes were noted from near Stanley in western Wisconsin to Oconto County. The first tornado touched down 23 miles northeast of Eau Claire just south of Boyd and Stanley in Chippewa County around 2 pm CST. The tornado continued just south of Owen, north of Curtiss and south of Dorchester in Clark County. The tornado then moved into Marathon County south of Athens then weakened over Hamburg before finally dissipating just north of Merrill in Lincoln County around 4:05 pm CST. The tornado reached a maximum width of 300 yards and travelled 75 miles before dissipating. Damage was estimated near two million dollars.

Event 6: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

Event 7: August 31, 1977

On the evening of the 31st, a devastating F/EF-3 tornado spun out a 27 mile path of destruction across Marathon County around 6:15 pm CST. The first sighting of the tornado came seven miles southwest of Fenwood. The funnel base was described as reaching tree top levels as it downed barns in the area. The tornado continued to near Marathon City where more barns were destroyed. The tornado caused extensive damage to Ginseng crops in the area. In Rib Mountain, 15 homes were demolished and 30 others were severely damaged. The storm moved into southwest Wausau damaging a mill and lumber yard. As the funnel cloud moved across the southern end of Wausau, brief touchdowns were noted at Grand Avenue and at Tenth and Manson Streets. The funnel lifted and moved eastward out of the city limits of Wausau, touching down for a final time on Linden Street. Barns and sheds were destroyed on Linden. The tornado reached a maximum width of a thousand yards. Property damage was close to two million dollars.

Event 8: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

Event 9: April 27, 1984

Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

Event 10: June 8, 1985

A severe thunderstorm spawned a killer F/EF-3 tornado and dropped large hail as it rolled through Price and Oneida Counties, causing widespread property, crop and timber damage. The tornado skipped from Park Falls to about 15 miles southeast of Rhinelander. The tornado first touched down one mile west of Park Falls around 6:15 pm CST and moved through the southern portion of the city. In Park Falls, 125 buildings were damaged with 12 houses and businesses were heavily damaged or destroyed. 26 people received mostly minor injuries in Park Falls. The tornado continued southeast, cutting an eighteen mile and 1.5 mile wide swath through eastern Price County and into Minocqua in Oneida County where the tornado dissipated around 6:52 pm CST. Two people were killed and sixteen injured at Swamsauger Lake and Cedar Falls resort in the Willow Reservoir area in Oneida County. A man apparently drowned when the tornado lifted him and his house and deposited it into Swamsauger Lake. A woman was killed when a tree crashed through a vehicle in which she was seeking refuge. The tornado continued to the southwest portion of Rhinelander and then dissipated southeast of Monico. A total of 47 residences were heavily damaged or destroyed while another 43 more received some damage in Oneida County. 9,900 acres of timber and cranberry bogs were lost in Oneida County.

Event 11: July 4, 1986

The F/EF-3 tornado touched down 2 miles south of Niagara in Marinette County at Highway 8 and Highway 141 around 7 pm CST. The tornado demolished a building next to a restaurant and slashed some trees. The tornado then skipped east-southeast and destroyed a home and garage, carrying its roof a half mile away. The tornado crossed the Menominee River and into the Carney-Nadeau area of Menominee County, Michigan around 7:25 pm CST. The tornado travelled 8 miles and was 100 yards wide.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

Event 12: August 29, 1992

The F/EF-3 tornado touched down east of Big Flats in Adams County around 7 pm CST. The tornado skipped along a five mile path, toppling trees and downing a 24 by 30 foot building. The killer tornado travelled a 28 mile path across Adams and Waushara Counties. The tornado was noted north of Coloma 710 pm just CST. The tornado then moved to Wautoma to just north of Redgranite and then to three miles southeast of Poy Sippi before dissipating around 7:55 pm CST. The hardest hit area was just south of Wautoma where a woman was killed when her mobile home was hurled several hundred feet into a parking lot. In addition, 30 people were injured, several critically. The tornado caused over ten million dollars in damage. All-together, forty-eight homes were destroyed and ninety-five other structures sustained major damage, 289 received minor damage. 950 acres of trees were toppled by the tornadic winds.

Event 13: August 23, 1998

Article written by National Weather Service Green Bay Staff

The F/EF-3 tornado struck a rural section of central Door County in Northeast Wisconsin during the evening of August 23, 1998. The multiple-vortex tornado was on the ground for nearly 14 minutes, and carved a path of damage 5.1 miles long and 1/4 to over 1/2 mile wide at times. Damage was estimated at nearly $7 million. The tornado, which moved off the waters of Green Bay, moved on shore three miles southwest of Egg Harbor at 5:30 pm CST, near Horseshoe Bay. Thousands of trees were snapped or uprooted as the tornado moved across the heavily wooded area in Murphy Park. The width of the damage path just after it came on shore was nearly one-half mile! The tornado then crossed Highway 42 at about 5:34 pm CST, severely damaging several houses and businesses. Damage in this area was rated F2 on the Fujita Scale of F0 to F5. About three minutes later the tornado ripped a two-story farm house off its foundation, dropping it 20 yards away. Based on the house's construction, damage in this area was rated F3. Nearby, a campground was hit, causing considerable damage there to trees and campers. Amazingly, only two people were injured. The tornado weakened shortly thereafter, lifting off the ground three miles west-northwest of Jacksonport at around 5:44 pm CST.

AUGUST 23, 1998 DOOR COUNTY F-3 TORNADO

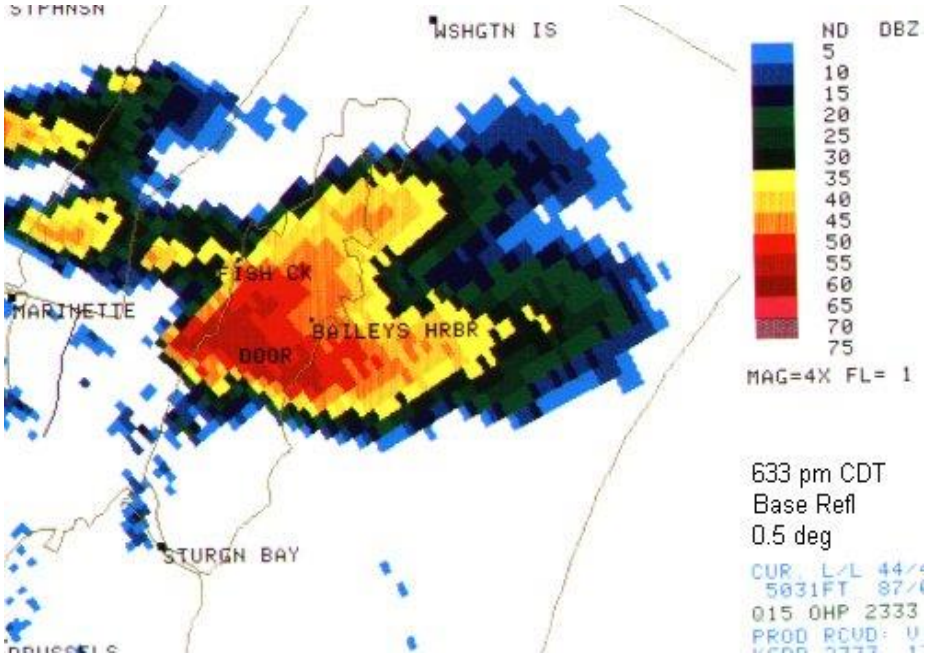
This photo was taken about the time the super cell thunderstorm was entering the Bay of Green Bay, off the Menominee, Michigan coast around 5:05 pm CST. The picture was taken 75 miles south of the storm. (Photograph © 1998 Michael Schardt)

This picture was taken around 5:15 pm CST, about the time the supercell was producing a waterspout on the bay. The picture was taken 25 miles south of the storm. (Photograph © 1998 Ray Fulwiler)

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

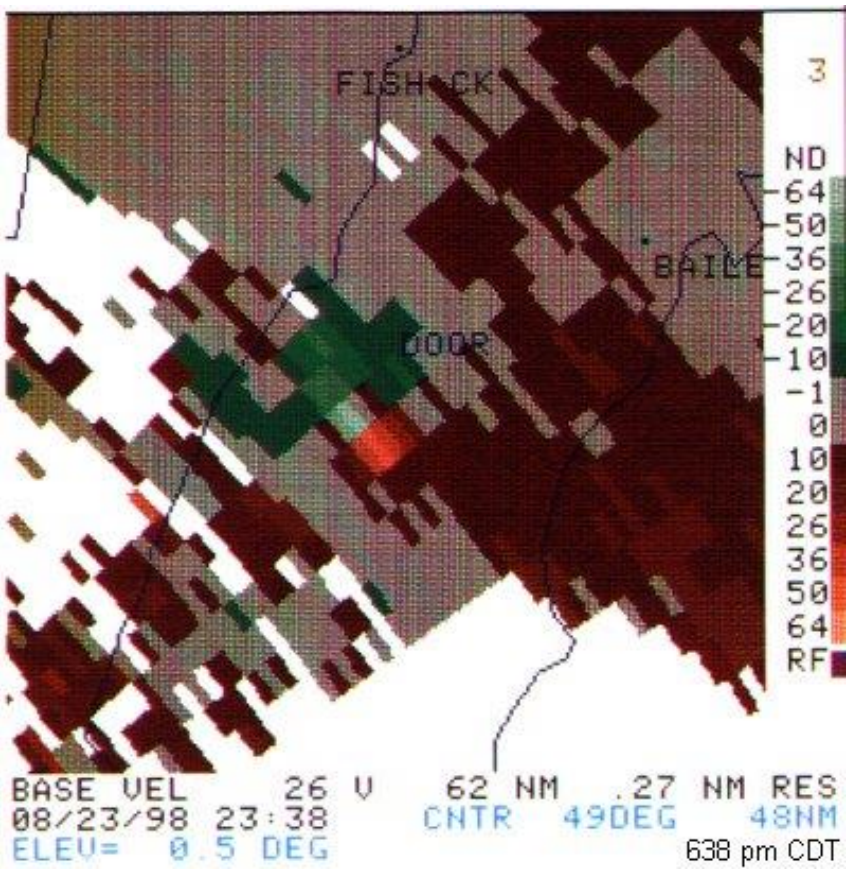
These photos were taken by Tom Janssen II at Murphy Park, which was hit by the tornado. The two on the left show the waterspout just after if developed, around 5:15 pm CST. The third picture was taken a little after 5:20 pm CST. The tornado was off the Door county shore over the Bay of Green Bay.

These pictures were taken by Gary Gridley, from Egg Harbor. The photo on the left was taken at 5:25 pm CST. The picture on the right was taken around 5:30 pm CST, as the tornado was coming onshore at Murphy Park.



This image shows the supercell thunderstorm as viewed by the radar. The image was taken at 633 pm CDT.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES



Note: The second image shows the tornado vortex signature 9 minutes later (638 pm CDT) near the time it was producing F3 damage. At this point, the radar measured 94 knot (108 mph) winds (ground relative) at about 4100 feet above the ground.

Door County Tornado Damage

Here is a panoramic view looking east on Hwy 42. The damage width (which goes off the picture on both sides) was over ¼ mile wide as it passed over Hwy 42. (Photograph by Jeff Last)

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

This building (top picture) was on the south side of the tornado as it passed over Hwy 42 (Photograph by Jill Last, NWS Green Bay). There used to be a farm house and barn here (bottom picture).

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

Event 14: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes moved across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

Picture on left: Tornado passing south of White Lake in Langlade Co. Picture courtesy: WAOW-TV.

Picture on right*:* Tornado as seen from Highway T in southwest Oconto Co. Picture: courtesy of the Wisconsin Department of Natural Resources.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

June 7, 2007: Tornadoes and Monster Hail

Path of tornado damage: Viewed by Aqua MODIS satellite. Courtesy: ERSC, UW-Madison.

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

June 7, 2007: Tornadoes and Monster Hail

Picture above: Damage at the Bear Paw Resort.

Picture on the left: More damage at the Bear Paw Resort.

Picture on the right: This is what remained of a double-wide mobile home in the town of Riverview. The owner heard the Tornado Warning and went into the bathtub (circled in large view), and escaped without a scratch!

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

June 7, 2007: Tornadoes and Monster Hail

Looking northeast across Hwy 64 in Oconto Co. The damage path was as much as 3/4 mile wide in this area. Picture courtesy Wisconsin DNR

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

Event 15: April 10, 2011

The F/EF-3 tornado developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	3 W Colby - 3 NE Abbotsford	Marathon
2	4	15	1954	1500	2 NE Neshkoro - Redgranite	Waushara
3	6	20	1954	230-240	Rothschild to 6 NE Mosinee	Marathon
4	6	20	1954	0400	Brothertown	Calumet
5	4	3	1956	1250	3 S Bancroft - 2 NW Amherst	Portage
6	4	6	1956	1345-1353	Ogdensburg - Symco	Waupaca
7	7	1	1956	1205	5 E of Maplewood to 4 SE Institute	Door
8	4	19	1957	1600-1615	3 W Wautoma - 2 NW West Bloomfield	Waushara
9	5	17	1958	1540	3 W - 2 NE Wausaukee	Marinette
10	6	30	1958	1730	1 NW Gleason	Lincoln
11	5	6	1959	0320	Symco to 3 SE Clintonville	Outagamie, Waupaca
12	5	6	1959	1330	3 NE Shiocton	Outagamie
13	5	10	1959	2050-2055	Green Bay	Brown
14	7	8	1959	1654	Niagara	Marinette
15	8	28	1959	1404	3 N Appleton	Outagamie
16	11	15	1960	1425	2 NE Chili to near Rib Mountain	Marathon
17	9	3	1961	0010	Fenwood	Marathon
18	7	24	1962	1700	Corning	Lincoln
19	5	7	1964	1800	Wisconsin Rapids	Wood
20	5	8	1964	1700	5 N Iola - 1 W Clintonville	Waupaca
21	5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	Marathon
22	5	8	1964	1830-1906	Winneconne-Wrightstown	Brown, Calumet, Winnebago, Outagamie
23	6	9	1964	1500	Pound	Marinette
24	8	22	1964	1400	6 W Bancroft - Grant	Portage
25	7	8	1965	1700	1 W - 1N Sherwood	Calumet
26	6	4	1966	1900	Gillett - 2 NE Oconto Falls	Oconto
27	6	4	1966	1900	Suring	Oconto
28	3	31	1967	2349	Marshfield	Wood
29	6	30	1967	2349-2359	Chilton - 7 E Chilton	Calumet, Manitowoc
30	7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	Wood
31	6	30	1968	0400	3 NW Cavour	Forest
32	8	16	1968	1230	Kaukauna	Outagamie
33	8	16	1968	2120	5 SE Hofa Park - 4 S Pulaski	Brown
34	8	19	1968	1730	4 W Fenwood - 11 E Fenwood	Marathon
35	6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	Vilas
36	4	22	1970	2040	Ashwaubenon to Green Bay - north side	Brown
37	4	22	1970	2100	De Pere to Green Bay	Brown
38	4	22	1970	2100-2110	1 N Casco - Rio Creek	Door, Kewaunee
39	4	22	1970	2120-2130	7 SE Maplewood	Door
40	4	22	1970	2120	Algoma - 6 NE Algoma	Kewaunee
41	7	7	1970	1500	Bancroft	Portage
42	12	1	1970	0900	12 SE Marshfield	Wood
43	12	1	1970	0945-1030	4 NW Iola - Pella	Shawano, Waupaca
44	9	28	1971	1415-1605	19 SW Merrill - Merrill	Lincoln
45	9	16	1972	1605	4 NW Wabeno - 2 N McAllister	Forest, Marinette
46	4	12	1974	1405	5 W Athens	Marathon

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
47	4	12	1974	1415	Wittenberg - Bowler	Shawano
48	4	21	1974	1525	4 NNW Crivitz	Marinette
49	6	12	1976	2030	1 W Alban	Portage
50	6	13	1976	1900	Plover	Portage
51	6	7	1978	1515	2 NW Francis Creek	Manitowoc
52	6	16	1979	0930	Oconto Falls - 2 NE Lena	Oconto
53	8	9	1979	1820	Rockland Beach	Calumet
54	6	7	1980	0020	Valders	Manitowoc
55	4	4	1981	0035	4 W Kiel	Calumet
56	6	13	1981	2100	Three Lakes	Oneida
57	5	6	1982	1430	2 S Stephensville - 1 S Black Creek	Outagamie
58	7	3	1983	1735	6 W Unity - Cherokee	Marathon
59	4	27	1984	1450	4 NW Antigo	Langlade
60	4	27	1984	1415	0.5 S Plover	Portage
61	9	24	1984	1650	13.5 WSW Wausau - Wausau	Marathon
62	6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	Door
63	8	12	1985	1813-1830	6 S Marshfield - Auburndale	Wood
64	7	4	1986	1935-1940	5 SE Hazelhurst	Oneida
65	5	8	1988	1710	4.5 SW Hadler - Rib Falls	Marathon
66	6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	Oneida
67	5	16	1992	1810-1830	4 W Keene - 5 SE Amherst	Portage
68	5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	Forest
69	7	5	1994	1553	2 SW Cooperstown	Manitowoc
70	8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	Marathon
71	7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	Lincoln
72	7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	Marathon
73	9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	Lincoln
74	6	23	2004	1856-1906	9 W Waupaca to 2 SW Lind Center	Waupaca
75	6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	Marathon
76	4	10	2011	1830-1846	3 SE Argonne – 6 SE Long Lake	Forest, Florence
77	4	10	2011	1943-1946	1.2 SW Kaukauna – 0.3 S Little Chute	Outagamie
78	8	6	2013	2324-2333	1.2 W New London – 0.4 WSW Greenville	Waupaca, Outagamie

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 1: June 25, 1950

The F/EF-2 tornado touched down 3 miles west of Colby and travelled to three miles northeast of Abbotsford around 9 pm CST. There was no additional information on this tornado. The tornado travelled approximately 3 miles with a maximum width of 20 yards.

Event 2: April 15, 1954

The F/EF-2 tornado struck around 3 pm CST two miles northeast of Neshkoro in Waushara County. The tornado travelled approximately six miles and reached a maximum width of 30 yards before dissipating at Redgranite. Widespread damage was reported at Redgranite, Lohrville and Spring Lake. Numerous small buildings and trees were damaged. The greatest single property damage occurred at the St. Marks Catholic Church in Redgranite. The frame structure was badly shaken by the storm, resulting in jammed doors and dislodged staircases and shattered walls. In the Spring Lake-Lohrville area, the greatest damage was in the town of Marion where a large barn was leveled. The wind scattered the tin roof for hundreds of yards in several directions.

Event 3: June 20, 1954

The F/EF-2 tornado developed around 2:30 am CST in Rothschild in Marathon County. The tornado travelled approximately 6.3 miles and dissipated six miles northeast of Mosinee around 2:40 am CST. The maximum width of the tornado was 70 yards. Another tornado was reported in Brothertown in Calumet County around 4 am CST.

Event 4: June 20, 1954

The F/EF-2 tornado developed around 4 am CST in Brothertown in Calumet County. The tornado travelled one mile and had a maximum width of less than 50 yards.

Event 5: April 3, 1956

A strong spring storm killed 43 people nationwide, including eight in Wisconsin on this date. The F/EF-2 tornado developed 3 miles south of Bancroft in Portage County around 12:50 pm CST. The tornado travelled 18.2 miles to two miles northwest of Amherst before dissipating. The tornado reached a maximum width of 100 yards. Two fatalities were reported in Portage County.

Event 6: April 6, 1956

The F/EF-2 tornado developed near Ogdensburg in Waupaca County around 1:45 pm CST. The tornado travelled 7 miles to Symco before dissipating around 1:53 pm CST. The tornado reached a maximum width of 100 yards.

Event 7: July 1, 1956

The F/EF-2 tornado developed 5 miles east of Maplewood in Door County and travelled 11 miles to four miles southeast of Institute around 12:05 pm CST. The tornado had a maximum width of 50 yards.

Event 8: April 19, 1957

The F/EF-2 tornado developed 3 miles west of Wautoma in Waushara County around 4 pm CST. The tornado travelled nearly 23 miles and reached a maximum width of 50 yards before dissipating two miles northwest of West Bloomfield around 4:15 pm CST. No fatalities were reported at a farm house that was leveled in rural Wild Rose. The farm of Reuben Anderson, Route 2 Wild Rose was the principal destruction point in Waushara County. The tornado destroyed a 34 by 56 foot barn, a 10 by 30 foot wood silo, a chicken coop, a milk house and wood shed.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 9: May 17, 1958

The F/EF-2 tornado developed 3 miles west of Wausaukee in Marinette County around 3:40 pm CST and travelled northeast for 4.7 miles before dissipating 2 miles northeast of Wausaukee. The tornado reached a maximum width of 80 yards.

Event 10: June 30, 1958

A brief F/EF-2 tornado touched down around 5:30 pm CST one mile northwest of Gleason in Lincoln County. The tornado travelled approximately 2 miles and reached a maximum width of 50 yards. According to the Rhinelander Daily News, the United States Weather Bureau stated a Northwest Orient Airlines plane and an Antigo radar station both reported radar echoes with the dangling hooks characteristic of tornado clouds.

Event 11: May 6, 1959

The F/EF-2 tornado developed near Symco in Waupaca County and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 12: May 6, 1959

The F/EF-2 tornado touched down 3 miles northeast of Shiocton and travelled nearly 2 miles before dissipating around 1:30 pm CST. The tornado reached a maximum width of 200 yards. The tornado flattened a barn on the farm of Mrs. Matilda Gehring. Numerous trees were damaged in a nearby wooded lot while a shed on a nearby farm sustained damage.

Event 13: May 10, 1959

The F/EF-2 tornado touched down in Ashwaubenon in Brown County around 8:50 pm CST and travelled northeast for approximately four miles into Preble and the city of Green Bay before dissipating at 8:55 pm CST. The maximum diameter of the tornado was less than 50 yards wide. One of the most severely damaged buildings in the Sunday night tornado was a year old home moved nearly off its foundation in Ashwaubenon. Five members of the Julius Alberts family were inside the house when the tornado hit, escaped injury. The garage disappeared from the neighborhood and the car inside was twisted around and dumped in a field behind the house. Six homes were demolished and at least 50 others suffered heavy damage. Three injuries were noted with the tornado.

Event 14: July 8, 1959

The F/EF-2 tornado touched down in Niagara in Marinette County around 4:54 pm CST. The tornado travelled approximately one mile and had a maximum width of 50 yards. The tornado downed trees, flattened a garage, tore the roof off a house, bounced an automobile off a house, and hit a tavern. There were three injuries when the twister picked up their trailer home and dumped it 100 feet away.

Event 15: August 28, 1959

Several funnel clouds were reported near the Outagamie County Airport by a pilot, and several other funnel clouds were noted by the Kimberly, Little Chute and Kaukauna police. The F/EF-2 tornado touched down about 3 miles north of Appleton around 2:04 pm CST. The tornado travelled approximately a mile before dissipating and had a maximum width of 35 yards.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 16: November 15, 1960

The F/EF-2 tornado developed near Chili in southeast Clark County. The tornado travelled for 36 miles into central Marathon County around 2:25 pm CST where the tornado dissipated near Rib Mountain. The tornado reached a maximum width of 100 yards. Main damage with the storm occurred near Chili and near the Town of Rib Mountain.

Event 17: September 3, 1961

The F/EF-2 tornado touched down near Fenwood in Marathon County around 12:10 am CST and travelled about 2 miles. The tornado was 35 yards wide. Damage was confined to farm buildings and crops in rural western Marathon County.

Event 18: July 24, 1962

The F/EF-2 tornado touched down briefly in the town of Corning in Lincoln County around 5 pm CST. The tornado travelled about a mile and had a maximum width of 50 yards. The tornado destroyed a barn and other buildings in the town of Corning.

Event 19: May 7, 1964

The F/EF-2 tornado touched down in the city of Wisconsin Rapids in Wood County around 6 pm CST and travelled a half mile. The maximum width of the tornado was 100 yards. The tornado tore through the Suburban Heights trailer court. There were fourteen injuries, none of them serious. Ten of the trailer homes were ripped from their foundation and tossed up into the air. The body of one was torn off and the frame was left lying upside down 100 yards from its original base. Many of the trailers were occupied by the Wisconsin Rapids Twins ballplayers and their wives. Some damage to roofs and television antennas was reported within the city limits.

Event 20: May 8, 1964

Several tornadoes were noted across the state on this date. In north central and northeast Wisconsin, the F/EF-2 tornado touched down from about five miles north of Iola in Waupaca County around 5 pm CST. The tornado travelled a little over 3 miles to one mile west of Clintonville. The tornado had a maximum width of 200 yards. At least five barns were reported down in the Clintonville area. Another tornado was noted across Marathon County from seven miles east southeast of Knowlton to five miles west of Elderon around 5:50 pm CST.

Event 21: May 8, 1964

The F/EF-2 tornado touched down 7 miles east southeast of Knowlton in Marathon County around 5:50 pm CST. The tornado travelled about twelve miles to 5 miles west of Elderon. The tornado had a maximum width of five hundred yards.

Event 22: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 23: June 9, 1964

The F/EF-2 tornado touched down near Pound in Marinette County around 3 pm CST. The tornado travelled approximately 3 miles and had a maximum width of 50 yards.

Event 24: August 22, 1964

The F/EF-2 tornado touched down six miles west of Bancroft and travelled approximately 7 miles to the town of Grant around 3 pm CST in Portage County. The tornado had a maximum width of 300 yards.

Event 25: July 8, 1965

The F/EF-2 tornado touched down one mile west of Sherwood in Calumet County and travelled approximately 3 miles to the northeast before dissipating one mile north of Sherwood around 5 pm CST. The tornado was 100 yards wide. The twister, striking in a narrow path northeast from High Cliff Park broke trees, power and telephone poles, and leveled a barn at the farm of Mrs. Anna Goaz at Route 1 in Menasha. Several other farm properties were damaged. Two teenage girls received multiple cuts and bruises when they were picked up by the twister and thrown down on a road in the High Cliff Beach area.

Event 26: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. The tornado was 50 yards wide. Another F/EF-2 tornado was reported near Suring around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 27: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado was reported near Suring around 7 pm CST. The tornado was 50 yards wide and travelled for 2 miles before dissipating. Another F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 28: March 31, 1967

The F/EF-2 tornado touched down in Marshfield around 11:49 pm CST. The tornado travelled approximately two miles and had a maximum with of 35 yards. The tornado destroyed or damaged several buildings including a mobile home plant.

Event 29: June 30, 1967

The F/EF-2 tornado struck Chilton in Calumet County around 11:49 pm CST. The tornado then travelled to 7 miles east of Chilton before dissipating around 11:59 pm CST. The maximum width of the tornado was 100 yards. The city of Chilton took the brunt of the damage. At least five buildings were destroyed beyond repair. A trailer home tumbled end over end across a lot and a good share of trees were torn up.

Event 30: July 22, 1967

The F/EF-2 tornado developed around 11 pm CST near Loyal in Clark County. The tornado then moved east southeast into Wood County. The tornado travelled nearly 21 miles before dissipating five miles east of Marshfield around 11:18 pm CST. The maximum width of the tornado was 100 yards. The tornado destroyed three barns and killed sixteen cattle near Loyal in Clark County. Several buildings and mobile homes were destroyed at Marshfield in Wood County.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 31: June 30, 1968

The F/EF-2 tornado touched down 3 miles northwest of Cavour in Forest County around 4 am CST. The tornado travelled east northeast approximately one mile and had a maximum width of 200 yards. Several buildings were damaged on the Aschenbrenner Farm near Cavour.

Event 32: August 16, 1968

The F/EF-2 tornado touched down near Kaukauna in Outagamie County and travelled 2 miles before dissipating around 12:30 pm CST. The maximum width of the tornado was 100 yards. The Mueleman farm near Kaukauna experienced severe damage. A barn was destroyed along with many trees. His home also suffered damage as the roof was torn off and windows were knocked out.

Event 33: August 16, 1968

The F/EF-2 tornado first formed about 5 miles southeast of Hofa Park in extreme western Brown County on the Brown - Shawano County line. The tornado moved east about a mile and dissipated four miles south of Pulaski around 9:20 pm CST. The tornado reached a maximum width of 100 yards. A 40 year old dance hall on Highway 29 at the Shawano - Brown County line was destroyed. The building exploded and debris was scattered over nearby fields. The 73 year old owner was hospitalized.

Event 34: August 19, 1968

The F/EF-2 tornado form about 4 miles east of Fenwood in Marathon County near County Trunk P just west of Highway 97 around 5:30 pm CST. The tornado travelled just over fourteen miles to the east before dissipating about eleven miles east of Fenwood. The maximum width of the tornado was 75 yards. Twenty-five barns mostly on the north side of County Trunk P were flattened. Damage was estimated at more than one million dollars.

Event 35: June 26, 1969

The F/EF-2 tornado formed near Lac Du Flambeau in Vilas County around 5 pm CST and skipped northeast for nearly 29 miles. The tornado dissipated along the Michigan border 9 miles northwest of Land O' Lakes. Maximum width of the tornado was 35 yards. Resort areas from Fence Lake northeastward across Big Crooked and High Lakes suffered damage.

Event 36: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 8:40 pm CST in Ashwaubenon and moved northeast about four miles to the north side of Green Bay. Maximum width of the tornado was 800 yards. Much of the damage was concentrated in the Lambeau Field area. Among the most seriously damaged businesses were the Midway Motor Lodge motel and the nearby Forum Supper Club as well as property at Nanco Corporation. There were reports of damage to tunnels connecting the Brown County Arena to an annex. Several cars in the area parking lot were damaged by flying debris. Roofs of a number of houses were damaged and garages and barns were reported destroyed. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 37: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST in De Pere and travelled northeast for 7 miles through Allouez and then into the southeast side of Green Bay. The maximum width of the tornado was 800 yards. A church steeple was toppled in De Pere. Damage was reported at a lumber yard and canning company at Baird and Main Streets in Green Bay. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 38: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST one mile north of Casco in Kewaunee County. The tornado moved northeast for 11 miles before dissipating near Rio Creek in southern Door County around 9:10 pm CST. The tornado reached a maximum width of 500 yards. Fifteen barns near Casco and Rio Creek were destroyed. Two persons were injured when their house trailer was upended south of Forestville. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 39: April 22, 1970

Several tornadoes were reported across north central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST seven miles southeast of Maplewood in Door County. This may be the same tornado that tore through eastern Kewaunee County from Algoma to 6 miles northeast of Algoma. The tornado travelled about four miles and reached 500 yards in width in Door County before dissipating.

Event 40: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST from Algoma to 6 miles northeast of Algoma in Kewaunee County. The tornado travelled about five miles and reached a maximum width of 500 yards. Extensive damage was reported near Algoma northeast along the Lake Michigan shoreline. Among the buildings destroyed were a warehouse and a church steeple. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 41: July 7, 1970

The F/EF-2 tornado touched down in Bancroft in Portage County around 3 pm CST. The tornado moved east southeast for two miles and reached a maximum width of a hundred yards before dissipating. Damage was confined to a machine shed and tore the roof off a new school.

Event 42: December 1, 1970

Four rare December tornadoes were reported on this date across north-central and northeast Wisconsin. The F/EF-2 tornado touched down in Wood County 12 miles southeast of Marshfield or two miles southeast of Arpin on the Fred Cahler farm around 9 am CST. The tornado travelled 2 miles while reaching a maximum width of 200 yards before dissipating. Several farm buildings were destroyed or damaged on the Fred Cahler farm. The tornadoes on this day are on the only December tornadoes recorded in the NWS Green Bay Service area.

Event 43: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola in Waupaca County. The tornado moved east for 32 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 44: September 28, 1971

The tornado was first sighted across portions of Clark and Taylor Counties. The tornado moved into Lincoln County 19 miles west southwest of Merrill around 2:15 pm CST. The tornado travelled 19 miles and reached a maximum width of 300 yards before dissipating near Merrill. Several farms were damaged or destroyed by the tornado across Clark, Taylor, and Lincoln counties. The storm summary does not indicate where the heaviest damage occurred.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 45: September 16, 1972

The F/EF-2 tornado formed 4 miles northwest of Wabeno in Forest County around 4:05 pm CST. The tornado tracked south of Athelstane, north of Wausaukee and into upper Michigan. The track reentered Wisconsin about 2 miles north of McAllister and cross over the Wisconsin Public Service Corporation Grand Rapids Power Dam. The tornado reentered upper Michigan 3 miles southwest of Ingalls around 5:15 pm CST moving across Highway 41 about two miles north of Wallace. The final path length of the tornado was 53 miles with the tornado reaching a maximum width of 200 yards. Several barns were flattened in the Wabeno area, otherwise damage was mainly to woods and overhead wires.

Event 46: April 12, 1974

The F/EF-2 tornado briefly touched down 5 miles west of Athens in Marathon County around 2:05 pm CST. The tornado travelled 2 miles and reached a maximum width of 150 yards before dissipating. One barn was destroyed and wires down. Two horses in the field were rolled over by the tornado.

Event 47: April 12, 1974

The F/EF-2 tornado touched down in Wittenberg in Shawano County around 2:15 pm CST. The tornado travelled nearly 11 miles and reached a maximum width of 150 yards before dissipating near Bowler. Several farms between Wittenberg and Bowler were destroyed. The Wendler farm in the town of Morris and the Watters and Hintz farms in the town of Seneca sustained severe damage. One injury was reported when Mr. Hintz was injured when he was struck by a flying board.

Event 48: April 21, 1974

The F/EF-2 tornado touched down 4 miles north northwest of Crivitz in Marinette County around 3:25 pm CST. The tornado was 200 yards wide and travelled four miles before dissipating.

Event 49: June 12, 1976

The F/EF-2 tornado touched down a mile west of Alban in Portage County around 8:30 pm CST. The tornado only travelled about a quarter of a mile and reached a maximum width of fifty yards. The tornado leveled a mobile home a mile west of Alban.

Event 50: June 13, 1976

The F/EF-2 tornado was observed by the police chief of Plover in Portage County around 7 pm CST. The tornado touched down at the intersection of Highway 54 and County B. The tornado was only on the ground for about a quarter of a mile and had a maximum width of about fifty yards.

Event 51: June 7, 1978

The F/EF-2 tornado touched down briefly 2 miles northwest of Francis Creek in Manitowoc County around 3:15 pm CST. The path length and maximum width of the tornado were not documented.

Event 52: June 16, 1979

The F/EF-2 tornado developed near Oconto Falls in Oconto County around 9:30 am CST. The tornado travelled just over 15 miles and reached a maximum width of 100 yards before dissipating 2 miles northeast of Lena. At least 17 frame and mobile homes along with numerous barns were damaged or destroyed. Heavy rains and large hail accompanied the tornado destroying crops along the thunderstorm path.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 53: August 9, 1979

The F/EF-2 tornado touched down near Rockland Beach in Calumet County around 6:20 pm CST. The strong tornado only travelled about a mile and was fifty yards wide. One death was attributed to the tornado. A Rockland Beach woman died after the winds demolished the family home. She was crushed as the family's first floor fireplace fell through into the basement. The husband and three children were not hurt.

Event 54: June 7, 1980

A brief F/EF-2 tornado touched down in Valders in Manitowoc County around 12:20 am CST. The tornado was less than 50 yards wide and was on the ground for less than a quarter of a mile. The brief touchdown resulted in the destruction of a large modern barn and heavy farm equipment. Field crops were beaten down in the vicinity of the storm.

Event 55: April 4, 1981

A brief F/EF-2 tornado touched down around 12:35 am CST 4 miles west of Kiel in Calumet County. The tornado was only 25 yards wide and travelled about a quarter of a mile. Six trailers in a line in the Country Aire Trailer Court were destroyed. One trailer was lifted into the air and deposited upside down.

Event 56: June 13, 1981

There is very little information available on this F/EF-2 tornado that struck Three Lakes in Oneida County around 9 pm. Path length and width were not available.

Event 57: May 6, 1982

The F/EF-2 tornado cut a 9 mile path from 2 miles south of Stephensville to one mile south of Black Creek in Outagamie County around 2:30 pm CST. The tornado reached a maximum width of 100 yards. Many small rural structures were destroyed. Some damage occurred to 12 large farm buildings and equipment inside. Two additional large barns were destroyed. Most of the damage occurred in Ellington Township.

Event 58: July 3, 1983

The F/EF-2 tornado was first spotted near a home 6 miles west of Unity in Clark County around 5:35 pm CST. The tornado skipped across Clark County, skirting just north of Unity and crossed Highway 13 into Marathon County. In Marathon County, the tornado struck a farm just east of Highway 13, flipping a truck and camper as well as ripping a shed off its foundation. The tornado then struck a farm one mile east of Colby and just south of Highway N destroying many trees. The next farm to the east was struck and two hay wagons were flipped over and a chimney was knocked off. The tornado hit a farm three miles east of Colby and one mile south of Highway N. A large barn was pushed off its foundation. The tornado moved across Highway F just south of Cherokee, and into an 18 acre wooded lot destroying fifty large trees. Finally, a farm just east of Cherokee and south of Highway N took off the top of a silo. There were no further reports to the east. The tornado travelled approximately 6 miles and had a maximum width of fifty-five yards.

Event 59: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched 4 miles northwest of Antigo in Langlade County around 2:50 pm CST. The tornado was 20 yards wide and travelled 7.5 miles across Langlade County. One home and three barns were demolished and twenty-five head of dairy cows were crushed to death in one barn.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 60: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched down a half mile south of Plover in Portage County around 2:15 pm CST. The tornado was 220 yards wide and travelled five and a half miles before dissipating. At least nine homes and numerous sheds and barns were destroyed. A bun feeder wagon was thrown 150 yards which snapped a sixty-five foot cement silo. Ping pong size hail accompanied the storm.

Event 61: September 24, 1984

The F/EF-2 tornado touched down thirteen and a half miles west southwest of Wausau in Marathon County around 4:50 pm CST, or one mile south of Highway P and one mile west of Highway 107. The tornado was 150 yards wide and travelled 12 miles before lifting on the east side of the Wisconsin River near Wausau. The tornado caused $2.2 million dollars in damage in the townships of Emmett, Mosinee, Marathon, and Rib Mountain. Three homes were destroyed, eight sustained major damage and several barns and sheds were leveled. Numerous trees were reported down. The storm was accompanied by baseball size hail one mile northeast of Rothschild.

Event 62: June 8, 1985

The F/EF-2 tornado touched down around 8 pm CST near Sand Bay in Door County, causing some building damage. The tornado skipped east 5 miles across portions of Sturgeon Bay. The tornado was 150 yards wide. Garages, sheds and ten barns were leveled or blown away. Yachts were blown off cradles and hundreds of trees were downed. Property damage was estimated at $1.8 million dollars. Hail up to five inches in diameter covered the ground to a depth of six inches just northeast of Sturgeon Bay. The storm caused an estimated $1.5 million dollars in crop damage.

Event 63: August 12, 1985

A large F/EF-2 tornado touched down around 6:13 pm CST six miles south of Marshfield in Wood County along highway B. The tornado travelled northeast across Highway EE and then slammed Auburndale. The tornado was on the ground for ten miles before the tornado dissipated in Auburndale around 6:30 pm CST. At its peak, the tornado was a massive 880 yards wide. Damage was estimated at $5.5 million dollars. Fifty-eight dwellings and forty farms suffered damage. The Apache Gardens subdivision and the Wishkershen Trailer Park in Auburndale received substantial damage.

Event 64: July 4, 1986

The F/EF-2 tornado touched down on the south shore of Windpudding Lake or 5 miles southeast of Hazelhurst in Oneida County around 7:35 pm CST. The tornado heavily damaged seven cottages and leveled numerous trees. A shed was blown thirty feet through the air. A dog inside the shed survived. The tornado travelled a mile and a half and reached a maximum width of 100 yards before it dissipated around 7:40 pm CST.

Event 65: May 8, 1988

The F/EF-2 tornado developed four and a half miles southwest of Hadler in Marathon County around 510 pm CST. The tornado travelled 13 miles and reached a maximum width of 250 yards before dissipating in Rib Falls. Two people were injured in the town of Emmet when their mobile home trailer was rolled upside down. In all, three mobile homes, six large barns, three machine sheds and silos were destroyed with numerous buildings damaged. Thirty-nine acres of ginseng racks on sixteen farms were knocked off their posts causing $450,000 in damage. The total cost of the tornado in Marathon County was over one million dollars in damage.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 66: June 27, 1991

The F/EF-2 tornado touched down 12 miles west-southwest of Minocqua in Oneida County around 6:20 pm CST. The tornado cut a 6 mile swath from near Pine Lake to Franklin Lake to Marion Lake before dissipating around 6:30 pm CST. The tornado was 400 yards wide. Thirteen homes and one car were damaged along its path with damage estimated at $350,000 dollars. In addition, 1,600 acres of industrial forest valued at $240,000 were also damaged.

Event 67: May 16, 1992

The F/EF-2 tornado touched down 4 miles west of Keene in Portage County around 6:10 pm CST. The tornado was 400 yards wide and travelled eleven miles to 5 miles southeast of Amherst before dissipating around 6:30 pm CST. The tornado tossed a mobile home in the middle of a road in Plover Township and damaged fourteen homes, two farms, and a large amount of irrigation equipment.

Event 68: May 30, 1994

The F/EF-2 tornado touched down 2 miles southwest of Crandon in Forest County around 850 pm CST. The tornado travelled 12 miles and reached a maximum width of 800 yards before dissipating one mile north of Laona around 9:16 pm CST. Three mobile homes and 25 homes were destroyed while 600 acres of timber was leveled. Three people were injured in a mobile that was destroyed by the tornado. The thunderstorms also produced tennis ball size hail as the storms passed through Rhinelander.

Event 69: July 5, 1994

On this date, the F/EF-2 tornado touched down 2 miles southwest of Cooperstown in Manitowoc County around 3:53 pm CST. The tornado travelled about a mile and reached a maximum width of 150 yards. A shed was leveled and a grain box was tossed about 300 yards. This was one of two tornadoes to hit Manitowoc County on this date. A stronger F/EF-4 tornado touched down two and a half miles northwest of Maribel and travelled to a half mile west of Cooperstown between 3:43 pm and 3:55 pm CST.

Event 70: August 7, 1996

The F/EF-2 tornado touched down six and a half miles north of Stratford in Marathon County around 1:45 am CST, tearing the top portion of a home off, flattened a garage, and snapped off several large trees. The tornado continued east northeast for two and a half miles and reached a maximum width of 200 yards before dissipating two and a half miles north northwest of Fenwood around 1:49 am CST. As the storm moved east, there was damage to a storage shed and thirty trees on a farm. A dozen of Ginseng shelters were thrown about. The tornado was not on the ground for the entire path.

Event 71: July 16, 1997

On this date the F/EF-2 tornado touched down in southeast Lincoln County eleven and a half miles southeast of Merrill around 2:38 pm CST. The storm travelled under a mile to the southeast into Marathon County before dissipating 12 miles southeast of Merrill around 2:40 pm CST. The tornado reached a maximum width of 100 yards. As the storms rolled through Lincoln County, softball size hail was reported northeast of Merrill.

Event 72: July 16, 1997

The F/EF-2 tornado touched down eight and a half miles northeast of Nutterville in Marathon County around 2:40 pm CST. The storm travelled just over three miles and reached a maximum width of 100 yards before dissipating 6.9 miles northeast of Nutterville around 2:45 pm CST. The tornado damaged several homes, vehicles and silos, and destroyed numerous barns, sheds and crops. Twenty head of dairy cattle were killed or had to be destroyed. There were two other tornadoes with this tornadic supercell. Total damage to crops and property from the five tornadoes, hail and straight-line winds in Marathon County alone topped $10 million.

TORNADO REFERENCE GUIDE - F/EF-2 TORNADOES

Event 73: September 30, 2002

The F/EF-2 tornado developed 8 miles west of Tomahawk in Lincoln County around 6:30 pm CST. The tornado travelled approximately 3 miles to the northeast and reached a maximum width of 250 yards before dissipating four and a half miles northwest of Tomahawk around 6:35 pm CST. The tornado did significant damage, uprooting or snapping off thousands of trees along its path. A house in the path of the tornado suffered major structural damage, a camping trailer was thrown 300 feet, and a car was thrown into a tree coming to rest at least fifteen feet above the ground. Two barns were also destroyed.

Event 74: June 23, 2004

The F/EF-2 tornado originally touched down in southeast Portage County. The tornado then strengthened as it moved into southwest Waupaca County 9 miles west of Waupaca around 6:56 pm CST. The tornado was 125 yards wide and travelled 11 miles before dissipating 2 miles southwest of Lind Center at 7:06 pm CST. The tornado scoured asphalt off a road, destroyed a barn, sheared off the top 50 feet of a silo crushing 3 calves, damaged a sheet metal outbuilding, and killed 3 sheep. The tornado tore the roof from a house and destroyed the garage, overturned a semi-trailer and moved it 50 feet. Many trees were snapped off or uprooted. Some of the debris from this tornado landed several miles to the east in the Fremont area of Waupaca County.

Event 75: June 7, 2007

There were five tornadoes on this date across north central and northeast Wisconsin. The F/EF-2 tornado developed 1.4 miles west Peplin in Marathon County around 3:01 pm CST. The tornado travelled just over 7 miles and reached a maximum width of 225 yards before it dissipated nearly a mile north of Pike Lane around 3:14 pm CST. At least 8 homes, 10 barns, and numerous trees were damaged.

Event 76: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.

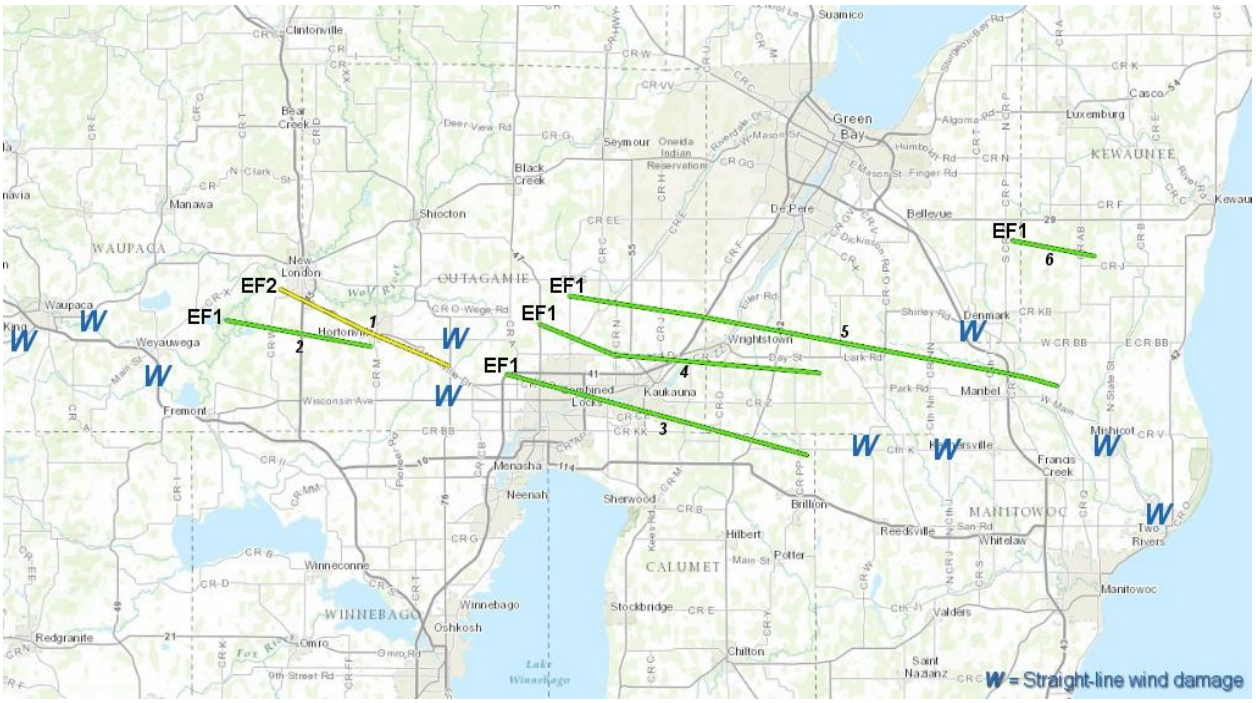
Event 77: April 10, 2011

The F/EF-2 tornado touched down in the southwest side of Kaukauna near County Road CE at 7:43 pm CST. The tornado cut through the center of a subdivision as it moved north-northeast to near the Fox River before lifting off the ground. Seven homes were destroyed, 24 homes and four businesses sustained major damage and 160 other homes sustained minor damage. Several houses lost large sections of their roofs in the hardest hit area of the city. The average path width was 125 yards.

Event 78: August 6, 2013

The second of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-2) tornado touched down 1.2 miles west of New London in Waupaca County at 11:24 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado struck a church (figure 1 below), causing severe damage. A large portion of the roof collapsed, causing failure to two walls. A wall on the new portion of the church was pushed in. In addition, hundreds of trees were snapped or uprooted. Several homes along the path sustained damage, mainly from fallen trees. The average path width in Waupaca County was 100 yards with a maximum width of 175 yards. The tornado now an EF-1 entered Outagamie County at 11:25 pm CST a little over a mile southeast of New London, damaging or uprooting hundreds of trees along the path. Several homes in a two block area of Hortonville were damaged (roof and siding) by falling trees. The average path width was 100 yards with a maximum width of 175 in Outagamie County. The tornado traveled 13.1 miles before dissipating four tenths of a mile west southwest of Greenville.

Event 78: August 6, 2013 continued



TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	20	1953	1800	Three Lakes	Oneida
2	5	3	1955	1800	Irma	Lincoln
3	5	28	1955	1505	3 W Clintonville	Waupaca
4	4	19	1957	1600	Coddington - Bancroft	Portage
5	6	14	1957	1730	Florence	Florence
6	7	11	1957	1345	4 SW Denmark	Brown
7	7	11	1957	1400	Whitelaw	Manitowoc
8	8	30	1958	1526	6 SE Wausaukee	Marinette
9	5	4	1959	1030	Wausau	Marathon
10	5	4	1959	1145	Deerbrook	Langlade
11	5	28	1959	1515	6 N to 9 NE Oshkosh	Winnebago
12	5	28	1959	1538	1 SW Greenleaf	Brown
13	6	10	1959	1320	De Pere	Brown
14	4	24	1960	1600	7 SW Valders	Manitowoc
15	5	21	1960	1730	15 W Oshkosh	Winnebago
16	9	3	1961	0100	Athens	Marathon
17	9	3	1961	1700	12 W Merrill	Lincoln
18	6	23	1962	1630-1635	2 W Champion	Brown
19	9	19	1963	1800	Laona	Forest
20	5	4	1964	1800-1810	10 SW St. Germain to near St. Germain	Oneida
21	6	9	1964	1455	Belle Plaine	Shawano
22	7	10	1966	2200	Plainfield - Wautoma	Waushara
23	7	1	1967	0045	3 E Kiel	Manitowoc
24	7	2	1967	1400	Brillion	Calumet
25	6	30	1968	0445	3 S Pembine	Marinette
26	8	5	1968	1400	3 NW Seymour	Outagamie
27	6	26	1969	1630	2 W Manitowish Waters - 3 SW Presque Is.	Vilas
28	6	26	1969	1700	Skanawank - Pelican Lake	Lincoln
29	7	2	1969	1620	3 SW Luxemburg - Ellisville	Kewaunee
30	4	22	1970	2110	2 NE Poland - 4 SE Luxemburg	Brown, Kewaunee
31	7	7	1970	1900	Winchester - Boulder Junction - Conover	Vilas
32	7	14	1970	1230	Marion	Waupaca
33	7	14	1970	1400	McAllister	Marinette
34	7	30	1970	1205	4 W Suamico	Brown
35	12	1	1970	0700	Hull	Portage
36	5	18	1971	1640-1704	Adams-Friendship - Hancock	Waushara
37	6	6	1971	2315	5 SW Oshkosh	Winnebago
38	6	13	1971	1630	8 NW Oshkosh	Winnebago
39	6	18	1971	1345	5 W Marinette	Marinette
40	7	8	1971	0200	Wisconsin Rapids	Wood
41	8	21	1972	1510	Goodwin - Two Rivers	Manitowoc
42	3	11	1973	1030	2 E Calumetville	Calumet
43	5	9	1973	1550	2 N Reedsville	Manitowoc
44	6	3	1973	1815	2 NE Amberg	Marinette
45	6	18	1973	1100	2 W Athens	Marathon
46	7	12	1973	300	Boulder Junction - Sayner	Vilas

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
47	7	12	1973	0730	Jacksonport	Door
48	7	12	1973	0800	4 W Freedom	Outagamie
49	6	9	1974	1445	Bancroft	Portage
50	6	14	1974	1610	5 NW Gillett	Oconto
51	6	12	1976	2100	Amherst	Portage
52	6	13	1976	1840-1920	4 W Wisconsin Rapids - 3 NE Stevens Point	Portage
53	6	13	1976	2000-2100	2 W Hogarty - Elton	Langlade, Marathon
54	6	13	1976	2000	5 E Seymour	Outagamie
55	6	13	1976	2015	Oconto Falls	Oconto
56	6	13	1976	2045	9 E Merrill to 11 NW Antigo	Langlade, Lincoln
57	7	30	1977	2245	0.5 N Forest Junction - 3 W Denmark	Brown
58	5	8	1978	1650-1700	1.5 SW - 2.5 SE Luxemburg	Kewaunee
59	6	16	1979	1530-1545	2 N - 2 NE Irma	Lincoln
60	6	20	1979	1345	3 S Oshkosh	Winnebago
61	6	20	1979	1430	Goodman	Marinette
62	8	4	1979	1000	Manitowoc	Manitowoc
63	8	9	1979	1856	Green Bay - northeast	Brown
64	5	30	1980	1430	4 S Shawano	Shawano
65	5	30	1980	1520	Oconto	Oconto
66	5	30	1980	1605-1614	Black Creek	Outagamie
67	6	14	1980	1230	5 NW Manawa - Manawa	Waupaca
68	6	14	1980	1325	1 E Rhinelander - Lake Thompson	Oneida
69	7	5	1980	0030	Valders	Manitowoc
70	9	20	1980	2315	Mattoon	Shawano
71	6	13	1981	2040	1 N Hazelhurst	Oneida
72	6	13	1981	2045	Sayner - 3 NE Sayner	Vilas
73	3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	Portage, Wood
74	7	15	1982	1915	Mayflower Lake	Marathon
75	7	3	1983	0439	Eagle River	Vilas
76	7	3	1983	1900	Birnamwood	Shawano
77	7	19	1983	1925	Stockbridge Harbor	Calumet
78	6	26	1984	1655	13 N Wausau - Texas	Marathon
79	6	26	1984	1900	Caroline	Shawano
80	7	24	1986	1415	Saint Germain	Vilas
81	7	2	1987	1710-1715	Pike Lake	Marathon
82	7	12	1987	1127-1130	1 S Francis Creek	Manitowoc
83	8	14	1987	1740-1743	1 W Menasha	Winnebago
84	5	8	1988	1706-1712	2 SE Wautoma - 1 S Mount Morris	Waushara
85	7	29	1988	2030	Eagle River	Vilas
86	8	1	1988	1852	1 W Saint Germain	Vilas
87	8	4	1988	1435-1445	1 E Reedsville - 2 N Cato	Manitowoc
88	5	24	1989	2010-2015	3 S Oshkosh	Winnebago
89	5	24	1989	2105	4 WNW Chilton	Calumet
90	6	12	1990	1835	2 W Stratford	Marathon
91	6	14	1991	1155	8 WNW Merrill	Lincoln
92	4	20	1992	1600-1620	2 SW Arpin - Bakerville	Wood

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
93	5	16	1992	1430	5 N Junction City	Portage
94	5	16	1992	1830	2.5 NE Northland	Waupaca
95	5	16	1992	1920-1930	Kaukauna - 2 SW Wrightstown	Outagamie, Brown
96	7	19	1992	1554	2 WSW Stratford	Marathon
97	10	8	1992	1648	5 NE Wild Rose	Waushara
98	10	8	1992	1712	4 NE Blaine	Portage
99	4	26	1994	1455-1505	1.5 N Conover - 3 SE Land O'Lakes	Vilas
100	7	8	1994	1400	3 NW Elderon	Marathon
101	7	8	1994	1416	3 SE Aniwa	Shawano
102	8	27	1994	2107	Hancock	Waushara
103	8	27	1994	2141-2150	1.5 S Wausaukee - 3 SE Wausaukee	Marinette
104	7	14	1995	1640-1647	Phelps	Vilas
105	7	18	1996	1620-1630	1.5 SW - 3 SSE Tomahawk	Lincoln
106	7	18	1996	1805-1807	1.1 S - 1.6 SE Jericho	Calumet
107	8	7	1996	0146-0147	1 N - 1.2 NE Stratford	Marathon
108	8	7	1996	0219-0221	0.44 SW Shantytown - Shantytown	Marathon
109	7	16	1997	1509-1511	2 NE - 1.8 NE Ringle	Marathon
110	5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	Calumet
111	5	1	2001	2055-2100	0.4 NNE - NE Minocqua	Oneida
112	4	18	2002	1813-1827	3 SE Stratford - 6 NW Mosinee	Marathon
113	9	2	2002	1735-1743	6 NW Wausau - 4 NE Wausau	Marathon
114	9	30	2002	1810-1811	5.5 SSE - 5.5 SE Spread Eagle	Florence
115	8	3	2003	1359-1403	0.3 W - 0.2 ENE Potter	Calumet
116	6	23	2004	1846-1848	3 NNW Almond - 3 NNE Almond	Portage
117	6	23	2004	1853-1856	3 SE Blaine - 5 ESE Blaine	Portage
118	6	23	2004	2000-2008	Little Chute - Kaukauna	Outagamie
119	7	13	2004	1440-1452	1.4 NW Clark Mills to 2.8 SE Clark Mills	Manitowoc
120	8	18	2005	1945	6 ENE - 6.8 ENE Wrightstown	Brown
121	8	18	2005	2035	6.5 SSW - 5.7 S Manitowoc	Manitowoc
122	6	7	2007	1637-1640	0.5 W -2.5 ENE Cedarville	Marinette
123	6	7	2007	1716-1720	3.5 W Harmony to 1.2 N Harmony	Marinette
124	7	19	2008	2144-2145	3.8 WNW to 3.4 WNW Menasha	Winnebago
125	5	4	2010	1810-1812	2.7 SE Zittau to 2.7 W Winchester	Winnebago
126	8	20	2010	1520-1522	2 SE- 2.7 ESE Greenleaf	Brown
127	4	10	2011	1735-1742	2 NW Coloma – 4 ESE Hancock	Adams, Waushara
128	4	10	2011	1750-1758	5 S Parish	Langlade
129	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	Waushara, Waupaca, Outagamie
130	4	10	2011	1853-1904	0.3 NW Poy Sippi – 2.3 WSW Winchester	Waushara, Winnebago
131	4	10	2011	1903-1908	4.2 WNW – 3.2 N Armstrong Creek	Forest
132	4	10	2011	1953-1955	1.2 NNE Askeaton – 1.4 S Greenleaf	Brown
133	4	10	2011	1959-2001	1.6 NW Quinney – 1.5 SSE Stockbridge	Calumet
134	5	22	2011	1703-1720	5.5 SSE Cranmoor – 4.8 SE Arnott	Wood, Portage
135	8	19	2011	1545-1556	2.9 NW – 5.2 ESE Wausaukee	Marinette
136	8	6	2013	2322-2333	4 NNE Partridge - 0.8 WSW Hortonville	Waupaca, Outagamie
137	8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	Outagamie, Brown
138	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	Outagamie, Brown, Calumet

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
139	8	6	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larrabee	Outagamie, Brown, Manitowoc
140	8	6	2013	0005-0010	0.5 SSE Henrysville – 1 NE Stangelville	Brown, Calumet, Kewaunee
141	7	6	2015	1538-1540	3.4 W Marion – 2.7 W Marion	Waupaca

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 1: June 20, 1953

A brief F/EF-1 tornado touched down in Three Lakes in Oneida County around 6 pm CST. The tornado was 100 yards wide and travelled two miles before dissipating. Trees and power lines were downed along with some damage to summer homes.

Event 2: May 3, 1955

The F/EF-1 tornado touched down in Irma, approximately 9 miles north of Merrill, in Lincoln County around 6 p m CST. The tornado travelled 7 miles and had a maximum width less than 50 yards. Lincoln County Sheriff Alfred Giese stated in the Rhinelander Daily News that a tornado ripped through several farms and wooded lot country about 9 miles north of Merrill. Giese stated that three barns were blown down and that communications between Merrill and the State Traffic Patrol Headquarters in Tomahawk was disrupted for a while. Two people were trapped in the wreckage and were freed by sheriff officers and highway crews. No homes were damaged.

Event 3: May 28, 1955

The F/EF-1 tornado touched down 3 miles west of Clintonville in Waupaca County around 3:05 pm CST. The tornado travelled 2.7 miles and reached a maximum width of 75 yards before dissipating. The tornado ripped through a farm injuring two persons, and knocking down trees and utility poles. Robert Malaueg, 13, and Leroy Ashauer, 23, were hurt and taken to Clintonville Community Hospital.

Event 4: April 19, 1957

The F/EF-1 tornado touched down in Coddington, 12 miles southwest of Bancroft, in Portage County around 4 pm CST. The tornado travelled about 12 miles and reached a maximum width of less than 50 yards before dissipating in Bancroft.

Event 5: June 14, 1957

The F/EF-1 tornado touched down at Florence in Florence County around 5:30 pm CST. The tornado travelled approximately 8 miles and reached a maximum width of 100 yards before dissipating.

Event 6: July 11, 1957

The F/EF-1 tornado touched down 4 miles southwest of Denmark in Brown County around 1:45 pm CST. There was no documentation on the path width or distance travelled. A tornado also touched down in Manitowoc County fifteen minutes later.

Event 7: July 11, 1957

The F/EF-1 tornado was first reported to touch down two and a half miles southeast of White Law in Manitowoc County around 2 pm CST. The tornado struck the Bernard Vogel farm, picking up 9 trees thirty feet high and pounded them into the ground. The tornado also broke windows and gouged the side of the house. A female neighbor of Bernard Vogel, who was seeking shelter, was pinned up to the wall of a silo as she was running towards the house.

Event 8: August 30, 1958

The F/EF-1 tornado was reported 6 miles southeast of Wausaukee in Marinette County around 3:26 pm CST. The tornado was 100 yards wide and travelled a mile before dissipating.

Event 9: May 4, 1959

The F/EF-1 tornado was reported to touch down near Wausau in Marathon County around 10:30 am CST. The tornado was 200 yards wide and travelled a mile before dissipating near Wausau.

Event 10: May 4, 1959

The F/EF-1 tornado struck Deerbrook in Langlade County around 11:45 am CST. The tornado was 100 yards wide and was on the ground for a mile.

Event 11: May 28, 1959

The F/EF-1 tornado struck 6 miles north of Oshkosh in Winnebago County around 3:15 pm CST. The tornado travelled nine miles before dissipating 9 miles northeast of Oshkosh.

Event 12: May 28, 1959

The F/EF-1 tornado was spotted one mile southwest of Greenleaf in Brown County around 3:38 pm CST.

Event 13: June 10, 1959

The F/EF-1 tornado touched down near De Pere in Brown County around 1:20 pm CST. The tornado travelled about a mile and was less than twenty yards wide.

Event 14: April 24, 1960

The F/EF-1 tornado touched down 7 miles southwest of Valders in Manitowoc County around 4 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 15: May 21, 1960

The F/EF-1 tornado touched down fifteen miles west of Oshkosh in Winnebago County around 5:30 pm CST.

Event 16: September 3, 1961

The F/EF-1 tornado touched down near Athens in Marathon County around 1 am CST. The tornado was 35 yards wide and was on the ground for 2 miles.

Event 17: September 3, 1961

The F/EF-1 tornado touched down 12 miles west of Merrill in Lincoln County around 5 pm CST. The tornado was 50 yards wide and was on the ground for a mile.

Event 18: June 23, 1962

The F/EF-1 tornado touched down 2 miles west of Champion in eastern Brown County around 4:30 pm CST. According to the local storm report for June of 1962, the tornado became or originated as a waterspout near Point Sauble as the storm was picking up water at times. The tornado/waterspout had a maximum width of less than 50 yards and travelled 3 miles before dissipating at 4:35 pm CST.

Event 19: September 19, 1963

The F/EF-1 tornado tore through the village of Laona in Forest County around 6 pm CST. The tornado was less than 50 yards wide and travelled one mile before dissipating.

Event 20: May 4, 1964

The F/EF-1 tornado was first reported 10 miles southwest of St. Germain in Oneida County around 6 pm CST. The tornado travelled just over 7 miles before dissipating near St. Germain in Vilas County at 6:10 pm CST. The tornado had a maximum width of 125 yards. The local storm report indicated the tornado touched down twice and crossed over the Big St. Germain drawing water to a height of 200 feet. There was considerable damage to resorts and woods in the path of the tornado.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 21: June 9, 1964

The F/EF-1 tornado was sighted in Belle Plaine in Shawano County around 2:55 pm CST. The Adams Beach area was hit the hardest according to newspaper reports.

Event 22: July 10, 1966

The F/EF-1 tornado was first reported to touch down in Plainfield in Waushara County around 10 pm CST. The tornado was 100 yards wide and travelled approximately fifteen and a half miles before dissipating at Wautoma.

Event 23: July 1, 1967

The F/EF-1 tornado struck 3 miles east of Kiel in Manitowoc County around 12:45 am CST. The tornado was 50 yards wide and travelled a half mile before dissipating.

Event 24: July 2, 1967

The city of Brillion in Calumet County was struck by an F/EF-1 tornado around 2 pm CST. The local storm report indicated a touchdown in the city of Brillion. The tornado was 35 yards wide and travelled a mile before dissipating.

Event 25: June 30, 1968

The F/EF-1 tornado touched down on the Zern property 3 miles south of Pembine in Marinette County around 4:45 am CST. The tornado was 100 yards wide and travelled on the ground for a half mile. Trees and a garage were destroyed by the tornado.

Event 26: August 5, 1968

The F/EF-1 tornado touched down 3 miles northwest of Seymour in Outagamie County around 2 pm CST. The tornado was 150 yards wide and was on the ground for two miles before dissipating. Nine barns and farm buildings were destroyed.

Event 27: June 26, 1969

According to the local storm report, the F/EF-1 tornado skipped northeast through the forests of Price, southeast Iron and western Vilas Counties. The tornado struck Vilas County from 2 miles west of Manitowish Waters around 4:30 pm CST and moved to three miles southwest of Presque Isle. Most of the damage occurred around Manitowish Waters.

Event 28: June 26, 1969

The F/EF-1 tornado travelled 22 miles across Clark, Taylor and Lincoln Counties. The tornado did major damage from the Withee area in northern Clark County around 4:10 pm CST. Two persons were injured and about ten farms sustained damage. Major damage from the tornado was reported at the Taylor County Airport near Medford around 4:30 pm CST. Seven planes and one hangar suffered severe damage. The tornado entered western Lincoln County and travelled to near Pelican Lake around 5 pm CST before dissipating. Five more farms suffered serious damage in northeast Lincoln County. Tree and wire damage termed “worst ever” by utilities in the northern resort areas.

Event 29: July 2, 1969

The F/EF-1 tornado travelled just over 7 miles across Kewaunee County, from 3 miles southwest of Luxemburg through the Ellisville area around 4:20 pm CST. The tornado had a maximum width of 100 yards. Several farms were damaged by the tornado.

Event 30: April 22, 1970

The F/EF-1 tornado developed 2 miles northeast of Poland in extreme eastern Brown County around 9:10 pm CST. The tornado was 500 yards wide and travelled just over 7 miles to near Luxemburg before dissipating. Several farms were damaged and leveled the Kewaunee County Fair Grandstand at Luxemburg.

Event 31: July 7, 1970

The F/EF-1 tornado developed across Iron County in northwest Wisconsin. The tornado travelled east southeastward for nearly 38 miles across Vilas County around 7 pm CST. The tornado travelled from Winchester to Boulder Junction to Conover. Extensive damage to woods and lake property were noted in the path of the tornado.

Event 32: July 14, 1970

The F/EF-1 tornado briefly touched down in Marion in Waupaca County around 12:30 pm CST. The tornado was less than 50 yards wide and travelled approximately a half mile. The tornado ripped a door off a factory, flipping over a car and damaging trucks and signs in Marion.

Event 33: July 14, 1970

The F/EF-1 tornado was reported in Mc Allister in Marinette County around 2 pm CST. The tornado was less than 50 yards wide and travelled a mile. The tornado damaged a home and uprooted several trees.

Event 34: July 30, 1970

A brief tornado touchdown (F/EF-1) occurred 4 miles west of Suamico in Brown County. The tornado was 33 yards wide and travelled a mile before dissipating. According to the local storm report, the tornado struck in open country.

Event 35: December 1, 1970

A rare tornado event occurred across north central and northeast Wisconsin on this date. In all, there were four tornadoes on this date, including an F/EF-3. What made this event even more unusual was the time of day with all four tornadoes reported between 7 am and 10:45 am in the morning. The F/EF-1 tornado touched down on the Richard Rutta farm in the town of Hall north of Stevens Point in Portage County. The tornado was 200 yards wide and travelled nearly 3 miles before dissipating.

Event 36: May 18, 1971

The F/EF-1 tornado was first sighted northeast of Adams and Friendship in Adams County around 4:40 pm CST. The tornado travelled 15 miles as it moved across Highway 21 and then to Hancock in western Waushara County before dissipating around 5:04 pm CST. The tornado reached a maximum width of 100 yards. After crossing Highway 21, the tornado destroyed two house trailers injuring five people and smashed a barn. In Hancock, a large metal warehouse was severely damaged with sheet metal scattered a half mile downwind.

Event 37: June 6, 1971

The F/EF-1 tornado was reported 5 miles southwest of Oshkosh in Winnebago County around 11:15 pm CST. The tornado was 50 yards wide and travelled nearly 4 miles before it dissipated. The tornado demolished one barn and damaged several others on highway 26 about five miles southwest of Oshkosh.

Event 38: June 13, 1971

The public reported the tornado 8 miles northwest of Oshkosh in Winnebago County around 4:30 pm CST. The F/EF-1 tornado was 50 yards wide and only travelled a quarter of a mile. Many trees were down in small grove eight miles northwest of Oshkosh.

Event 39: June 18, 1971

The F/EF-1 tornado struck about 5 miles west of Marinette in Marinette County, near Highway 64 and Right O Way Road around 1:45 pm CST. The tornado was 100 yards wide and travelled just over four miles before it dissipated. Many trees were uprooted and several resort and farm buildings were damaged.

Event 40: July 8, 1971

The F/EF-1 tornado moved through open country just north of Wisconsin Rapids in Wood County around 2 am CST. The tornado was 75 yards wide and travelled about two miles before it dissipated. One house trailer moved off its foundation while there was damage to trees in the area.

Event 41: August 21, 1972

The F/EF-1 tornado touched down near Goodwin in Manitowoc County around 3:10 pm CST. The tornado was 50 yards wide and travelled approximately 12 miles to Two Rivers. The tornado struck the Van Koevering residence, uprooting five large trees in the yard. Tree and wire damage occurred along Highway 147 one mile south of Mishicot and near Highway 42 and near Shambeau Road near Two Rivers. The tornado moved eastward out over Lake Michigan.

Event 42: March 11, 1973

An early season F/EF-1 struck Calumet County, 2 miles east of Calumetville around 10:30 am CST. The tornado was 50 yards wide and travelled two miles before dissipating.

Event 43: May 9, 1973

The F/EF-1 was reported 2 miles north of Reedsville in Manitowoc County around 3:50 pm CST. The tornado was 50 yards wide and travelled about two miles before dissipating. Several outbuildings were destroyed on the John Zimmerman farm on Highway 32. Damage was also reported on the Sullivan and Fenlon farms.

Event 44: June 3, 1973

The F/EF-1 tornado first touched down just north of Amberg in Marinette County around 6:15 pm CST. The tornado was 100 yards wide and moved four and a half miles across Marinette County before dissipating. The tornado upended several house trailers and destroyed several wooden structures at the Sparkling Springs Campground just north of Amberg. Several acres of trees were leveled at the campsite and northeastward to Assembly of God Church in Beecher Township.

Event 45: June 18, 1973

The F/EF-1 tornado touched down on the Brunke Farm 2 miles west of Athens in Marathon County around 11 am CST. The tornado was 200 yards wide and travelled east for two miles before dissipating.

Event 46: July 12, 1973

The F/EF-1 tornado was struck touchdown just south of Boulder Junction in Vilas County around 3 am CST. The tornado was 100 yards wide and travelled 19.5 miles before dissipating near Sayner in Vilas County. Scattered damage to the woods was reported along the path of the tornado.

Event 47: July 12, 1973

The F/EF-1 tornado touched down in Jacksonport in Door County around 7:30 am CST. The tornado was 100 yards wide and travelled 3 miles. Scattered damage was reported west and south of Jacksonport. As many as six waterspouts were reported by one observer off Jacksonport. A seiche caused a drop of two feet in water level locally about fifteen minutes after passage of the storms.

Event 48: July 12, 1973

The F/EF-1 tornado developed 4 miles west of Freedom in Outagamie County around 8 am CST. The tornado was 100 yards wide and travelled one mile. Farm buildings were destroyed on the Ken Geiger farm 4 miles west of Freedom.

Event 49: June 9, 1974

The tornado formed in Adams County and then the F/EF-1 tornado moved into southwest Portage County where it touched down briefly on the Sawyer Farm Route 1, Bancroft around 2:45 pm CST. The tornado was 30 yards wide and travelled two and a half miles. The tornado damaged a barn, a chicken coop and a porch on house. Only minor tree damage was noted.

Event 50: June 14, 1974

On the afternoon of June 14th, the F/EF-1 tornado touched down 5 miles northwest of Gillett in Oconto County around 4:10 pm CST. The tornado was 30 yards wide and travelled only a quarter of a mile. The tornado downed trees and power lines and threw a chopper wagon thirty yards.

Event 51: June 12, 1976

The F/EF-1 tornado touched down near Amherst in Portage County around 9 pm CST. The tornado was 50 yards wide and travelled around a quarter of a mile. The Amherst High School roof was ripped off.

Event 52: June 13, 1976

The F/EF-1 tornado formed 4 miles west of Wisconsin Rapids in Wood County around 6:40 pm CST. The tornado continued to move east northeast to three miles northeast of Stevens Point near the intersection of Highway 51 and Business 51 before dissipating around 7:20 pm CST three miles northeast of Stevens Point. The tornado travelled nineteen miles and reached a maximum width of 100 yards. Many trees were flattened. In Stevens Point, scattered damage was reported just north of the city and a roof was blown off an apartment complex. Several other buildings also suffered damage. Two people in the apartment complex were injured from fallen debris.

Event 53: June 13, 1976

The F/EF-1 tornado hit first about two miles west of Hogarty in Marathon County around 8 pm CST. The tornado skipped along and moved east northeast into extreme southwest Langlade County near Elmhurst and then continued to near Elton before dissipating at 8:10 pm. The tornado was 50 yards wide and travelled 21.3 miles. Some sheds were destroyed while windows of some buildings were damaged. Tree limbs and power lines were downed by the tornado.

Event 54: June 13, 1976

The tornado (F/EF-1) developed near county highway H and Highway 54 about five miles east of Seymour in Outagamie County around 8 pm CST. The tornado was 50 yards wide and travelled a half mile. Three barns were destroyed.

Event 55: June 13, 1976

The F/EF-1 tornado developed just west of Oconto Falls in Oconto County around 8:15 pm CST. The tornado was 50 yards wide and travelled less than a quarter of a mile. The damage from the tornado included: a barn was destroyed, a farm house was damaged, trees and power lines were down and a good portion of an orchard was destroyed.

Event 56: June 13, 1976

The F/EF-1 tornado first reached the ground near Highway 64 in extreme southeast Lincoln County around 8:45 pm CST. The tornado then moved into western Langlade County about 3 miles north of Highway 64. The tornado skipped along to near county Highway I about 11 miles northwest of Antigo where it was last reported. The tornado was 50 yards wide and travelled nearly eleven miles. The only report of damage was some downed trees.

Event 57: July 30, 1977

The F/EF-1 tornado initially developed a half mile west of Forest Junction in Brown County around 10:45 pm CST, destroying a rural farm including a large barn, milk house and several small sheds. The tornado was 100 yards and travelled twelve miles before dissipating in Denmark. In Denmark, a roof of an apartment building was blown off, a couple of garages were destroyed and some farm machinery was toppled.

Event 58: May 8, 1978

The F/EF-1 tornado developed a mile and a half southwest of Luxemburg in Kewaunee County around 4:50 pm CST, and then moved to two and a half miles southeast of Luxemburg before dissipating around 5 pm CST. Two buildings were destroyed a mile and a half west of Luxemburg on Highway 54. A large pole building was destroyed two and a half miles southeast of Luxemburg.

Event 59: June 16, 1979

The F/EF-1 tornado developed 2 miles north of Irma in Lincoln County around 3:30 pm CST. The tornado moved to 2 miles northeast of Irma before dissipating at 3:45 pm CST.

Event 60: June 20, 1979

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County around 1:45 pm CST. The tornado on this date followed almost the same path as another more destructive twister that hit the city in April 1974. The tornado destroyed two mobile homes and severely damaged five others. Four people were hospitalized due to the injuries they suffered from the tornado.

Event 61: June 20, 1979

Goodman in Marinette County was hit by the F/EF-1 tornado around 2:30 pm CST. The tornado tore the roof off Louisiana Pacific Corps Seaway Division. Clarence Richards, personnel manager said 100 to 125 people were working inside the building when the tornado struck. Company officials said some of the workers were trapped when the roof collapsed. Only one injury was reported. There was no documentation on path length or width of the tornado.

Event 62: August 4, 1979

The tornado (F/EF-1) struck near Manitowoc in Manitowoc County around 10 am CST. Several buildings on a farm were destroyed. There was no documentation on path length or width of the tornado.

Event 63: August 9, 1979

The northeast side of Green Bay in Brown County was struck by the F/EF-1 tornado around 6:56 pm CST. There was no documentation on path length or width of the tornado.

Event 64: May 30, 1980

The F/EF-1 tornado touched down at Highway187 four miles south of Shawano in Shawano County around 2:30 pm CST. The tornado was 50 yards wide and travelled 2 miles before dissipating. A house trailer was destroyed and scattered debris two miles to the northeast.

Event 65: May 30, 1980

The F/EF-1 tornado touched down at Highway 22 and Highway J near Oconto in Oconto County around 3:20 pm CST. The tornado was 50 yards wide and travelled one mile. Several buildings and cars were damaged as well as twisting off several trees.

Event 66: May 30, 1980

The F/EF-1 tornado touched down about 2 miles outside of Black Creek in Outagamie County around 4:05 pm CST. The tornado travelled east around 4 miles before dissipating around 4:14 pm CST two miles east of Black Creek. An intermittent four mile path 50 yards wide resulted in damage to several garages in Black Creek.

Event 67: June 14, 1980

The tornado (F/EF-1) developed about 5 miles northwest of Manawa at Highway 161 near County Highway E in Waupaca County around 12:30 pm CST. The tornado crossed Highway 161 and then turned eastward and dissipated near Manawa. The tornado was 50 yards wide and travelled five miles before dissipating. Several residents in the area took several spectacular photographs of the twister.

Event 68: June 14, 1980

A small tornado (F/EF-1) formed at Highway C one mile east of Rhinelander in Oneida County at 1:25 pm CST. The tornado was 50 yards wide and travelled eastward for a mile and a half before the tornado dissipated over Lake Thompson. A falling tree injured one person seriously and two other injuries were noted in a trailer court. One house and three trailers and several rural buildings suffered damage.

Event 69: July 5, 1980

The F/EF-1 tornado struck the farm of Warren Otto just south of Valders in Manitowoc County around 12:30 am CST. There was no documentation on path length or width of the tornado. The tornado destroyed a barn and machine shed, and farm machinery on the Warren Otto farm. Other farm buildings in the area also sustained minor damage.

Event 70: September 20, 1980

The Mattoon area of Shawano County was struck by the F/EF-1 tornado around 11:15 pm CST. The tornado was 35 yards wide and travelled a half mile before dissipating. Several buildings were damaged by the tornado.

Event 71: June 13, 1981

The F/EF-1 tornado touched down at the Timber Ridge Country Club on Route 51 one mile north of Hazelhurst in Oneida County around 8:40 pm. There was no documentation on path length or width of the tornado. The tornado destroyed about one thousand trees.

Event 72: June 13, 1981

The F/EF-1 tornado touched down at County Highway N about a half mile north Sayner. The tornado moved east for three miles through the dense forest and cross the intersection of Highway N and Highway G then dissipated. The tornado damaged electric lines, telephone poles and trees. The tornado was fifty yards wide.

Event 73: March 30, 1982

The tornado initially touched down in the township of Armenia in Juneau County where it destroyed a house and 3 nearby mobile homes. Two occupants of the house were injured. The F/EF-1 tornado then moved northeast to just southeast of Nekoosa in Wood County around 2:05 pm CST. The tornado travelled intermittently on a 28 mile path before dissipating 3 miles southwest of Stevens Point in Portage County around 2:40 pm CST.

Event 74: July 15, 1982

The F/EF-1 tornado swept southeast from May Flower Lake into rural areas at the south end of the lake in Marathon County around 7:15 pm CST. The tornado was 50 yards wide and travelled three quarters of a mile. Several trees were downed and one residence was damaged.

Event 75: July 3, 1983

The Eagle River Municipal Airport in Vilas County was hit by the F/EF-1 tornado at 4:39 am CST. The tornado was 20 yards wide and travelled a half mile before dissipating. Two single engine planes were destroyed and thirteen others were damaged. Five eighths inch ropes holding the planes down were shredded. One plane cart wheeled four hundred feet.

Event 76: July 3, 1983

The F/EF-1 tornado touched down in Birnamwood in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled a half mile.

Event 77: July 19, 1983

The tornado (F/EF-1) touched down at Stockbridge Harbor in Calumet County around 7:25 pm CST. The tornado smashed a shed roof and damaged two homes near Lake Shore Drive. The tornado turned east southeast damaging two garages and a barn on Military Road and then Hickory Hill Road where the roof of a mobile home was destroyed. The tornado was 100 yards wide and travelled 2 miles before dissipating.

Event 78: June 26, 1984

The F/EF-1 tornado touched 13 miles north of Wausau in Marathon County around 4:55 pm CST. The tornado was 100 yards wide and skipped eastward for 8 miles before dissipating in the town of Texas. The tornado damaged four homes and three farm buildings. It also destroyed a few sheds and uprooted trees.

Event 79: June 26, 1984

The F/EF-1 tornado touched down on the west side of Caroline in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled 4 miles before dissipating east of Caroline. On the west side of Caroline, the tornado flattened sheds and knocking over several large trees and gravestones in a cemetery. A church roof was ripped off on the east side of Caroline. The entire town was without power for three hours.

Event 80: July 24, 1986

The F/EF-1 tornado briefly touched down around 2:15 pm CST on South Shore Drive near Little St. Germain Lake near St. Germain in Vilas County. The tornado was 50 yards wide and travelled a quarter of a mile. Five buildings, some garages, some boats and docks were damaged. A dozen trees were snapped off at the base.

Event 81: July 2, 1987

A brief tornado touched down just east of Pike Lake in Marathon County around 5:10 pm CST. The F/EF-1 tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 5:15 pm CST. Numerous trees were twisted and knocked down causing damage to seven homes, a boat trailer and one boat foundation.

Event 82: July 12, 1987

The F/EF-1 tornado touched down one mile south of Francis Creek in Manitowoc County around 11:27 am CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 11:30 am CST. One house and a garage were destroyed. A barn, shed and several trees were also damaged. Debris from the house was found as far as several miles away.

Event 83: August 14, 1987

Considerable damage from the F/EF-1 tornado occurred one mile west of Menasha in Winnebago County between 5:40 and 5:43 pm CST. The tornado was 100 yards wide and travelled a quarter of a mile. Most of the damage occurred at a warehouse where siding and a roof were twisted and ripped away. Two 100 square foot cement slabs were also torn from the building. Trees and power lines were downed as well.

Event 84: May 8, 1988

In Waushara County, the F/EF-1 tornado travelled 5 miles from one mile south of Mount Morris to 3 miles northeast of Wild Rose between 5:06 and 5:12 pm CST. The tornado was 100 yards wide. Damage to structures and trees were reported along Silver Lake.

Event 85: July 29, 1988

The brief tornado touched down in the Eagle River in Vilas County around 8:30 pm CST. The tornado was 50 yards wide and only travelled a tenth of a mile. The F/EF-1 tornado damaged the Northland Pines High School in Eagle River. Winds accompanying the storm downed signs and trees in the Eagle River area.

Event 86: August 1, 1988

The F/EF-1 tornado touched one mile west of St. Germain in Vilas County around 6:52 pm CST. The tornado was 50 yards wide and travelled one mile. The tornado caused falling trees to damage cars and buildings one mile west of St. Germain. Another tornado (F/EF-0) was reported at 7:22 pm CST two miles southeast of Eagle River.

Event 87: August 4, 1988

The F/EF-1 tornado developed one mile east of Reedsville in Manitowoc County around 2:35 pm CST. The tornado was 25 yards wide and travelled 4 miles before dissipating two miles north of Cato around 2:45 pm CST. Two barns, one shed and several trees were damaged by the tornado.

Event 88: May 24, 1989

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County between 8:10 and 8:15 pm CST. The tornado was 50 yards wide and travelled 1.2 miles before dissipating.

Event 89: May 24, 1989

The F/EF-1 tornado touched down 4 miles west northwest of Chilton in Calumet County around 9:05 pm CST. The tornado was 50 yards wide and was on the ground for a quarter of a mile.

Event 90: June 12, 1990

The F/EF-1 tornado hit a farm 2 miles west of Stratford in Marathon County around 6:35 pm CST. The tornado was 25 yards wide and was only on the ground for a tenth of a mile. According to newspaper reports, there was damage to some farm structures.

Event 91: June 14, 1991

The tornado touched down 8 miles west northwest of Merrill in Lincoln County around 11:55 am CST. The F/EF-1 tornado was 50 yards wide and was on the ground for a mile. The tornado destroyed several trees, a barn and damaged a roof and porch of a house.

Event 92: April 20, 1992:

The F/EF-1 tornado formed 2 miles southwest of Arpin in Wood County around 4 pm CST. The tornado was 25 yards wide and travelled 9.5 miles before dissipating a half mile south of Bethel or near Bakerville around 4:20 pm CST. Damage included: a shed was knocked down near Arpin, a mobile home was picked up and twisted around near Bethel and some roof damage was reported at Bakerville.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 93: May 16, 1992

The F/EF-1 tornado touched down 5 miles north of Junction City in Portage County around 2:30 pm CST. The tornado was 400 yards wide and travelled 1.3 miles before dissipating. The tornado damaged three homes, two sheds, and a mobile home roof 5 miles north of Junction City.

Event 94: May 16: 1992

In Waupaca County, the F/EF-1 tornado touched down two and a half miles northeast of Northland around 6:30 pm CST. The tornado was 100 yards wide and was on the ground for a mile and a half. Many trees and three homes were damaged by the tornado.

Event 95: May 16: 1992

The F/EF-1 tornado formed near Lamers and Clancy Roads near Kaukauna in Outagamie County around 7:20 pm CST. The tornado was 100 yards wide and travelled several miles into extreme southwest Brown County where it dissipated 2 miles southwest of Wrightstown around 7:30 pm CST. Numerous trees were down, some of which landed on houses.

Event 96: July 19, 1992

The F/EF-1 tornado formed 2 miles west southwest of Stratford in Marathon County around 3:54 pm CST. The tornado was 400 yards wide and was on the ground for only a quarter of a mile. The damage from the tornado included: a destroyed barn, two houses and one garage damaged while several trees were downed.

Event 97: October 8, 1992

The F/EF-1 tornado touched down in the Gilbert Lakes area about 5 miles northeast of Wild Rose in Waushara County around 4:48 pm CST. The tornado was 400 yards wide and was on the ground for a mile. Fifteen homes and buildings were damaged. 500 oak and pine trees were also damaged.

Event 98: October 8, 1992

The F/EF-1 tornado touched down about 4 miles northeast of Blaine in Portage County and moved through the township of Lanark around 5:12 pm CST. The tornado was 100 yards wide and was on the ground for 2 miles. Ten homes and buildings were damaged, a barn and garage destroyed and numerous trees were knocked down.

Event 99: April 26, 1994

The F/EF-1 tornado touched down a mile and a half north of Conover in Vilas County around 2:55 pm CST. The tornado was 150 yards wide and travelled four and a half miles before dissipating 3 miles southeast of Land O' Lakes around 3:05 pm CST. The tornado damaged a house just north of Conover and leveled hundreds of trees along its four and a half mile path into the Nicolet National Forest.

Event 100: July 8, 1994

The F/EF-1 tornado touched 3 miles northwest of Elderon in Marathon County around 2 pm CST. The tornado was 75 yards wide and only travelled two tenths of a mile. The tornado moved a garage off its foundation and wrecked a house roof and shed three miles northwest of Elderon.

Event 101: July 8, 1994

The F/EF-1 tornado formed three miles southeast of Aniwa in Shawano County around 2:16 pm CST. The tornado was 75 yards wide. The tornado only travelled two tenths of a mile. The tornado destroyed a garage and toppled trees three miles southeast of Aniwa.

Event 102: August 27, 1994

The F/EF-1 tornado formed in Hancock in Waushara County around 9:07 pm CST. The tornado was 75 yards wide and was on the ground for a mile and a half.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 103: August 27, 1994

The F/EF-1 tornado developed a mile and half south of Wausaukee in Marinette County around 9:41 pm CST. The tornado was 75 yards wide and was on the ground for 4 miles before dissipating three miles southeast of Wausaukee around 9:50 pm CST.

Event 104: July 14, 1995

The tornado touched down a mile and a half southwest of Phelps in Vilas County around 4:40 pm CST. The F/EF-1 tornado was 250 yards wide and travelled east for three and a half miles before dissipating just southeast of Phelps at 4:47 pm CST. Trees fell on cars, homes and businesses.

Event 105: July 18, 1996

The F/EF-1 tornado touched down a mile and a half southwest of Tomahawk at 4:20 pm CST. The tornado uprooted two trees at Bradley Park, then moved southeast across Lake Mohawkskin, flipping two boats over. The tornado moved back on land and tore part of a roof off a tavern while a garage was removed from its foundation. It continued to move into the Road Lake area where it produced its most significant damage. Three cottages were damaged after trees fell on them. The tornado reached a maximum width of 100 yards before it dissipated nearly three miles southeast of Tomahawk around 4:30 pm CST.

Event 106: July 18, 1996

The F/EF-1 tornado touched down 1.1 miles south of Jericho in Calumet County around 6:05 pm CST. The tornado was 100 yards wide and was on the ground a mile and a half before it dissipated 1.6 miles southeast of Jericho at 6:07 pm CST.

Event 107: August 7, 1996

A brief F/EF-1 tornado touched down one mile north of Stratford in Marathon County around 1:46 am CST. The tornado was 100 yards wide and only travelled two tenths of a mile before dissipating 1.2 miles northeast of Stratford around 1:47 am CST. The tornado snapped off numerous large trees, some of which fell on the top of homes. In addition: a barn was flattened, a semi-trailer was flipped over and a car moved 75 feet.

Event 108: August 7, 1996

The F/EF-1 tornado touched down four tenths of a mile southwest of Shantytown in Manitowoc County around 2:19 am CST. The tornado was 100 yards wide and travelled nearly a half mile to Shantytown before dissipating around 2:21 am CST. The tornado tore a 100 yard swath through a cornfield. In Shantytown, the tornado tore the roof and garage off a home. Pieces of the roof were found one-quarter of a mile away from the home.

Event 109: July 16, 1997

The F/EF-1 tornado briefly touched down two miles northeast of Ringle in Marathon County around 3:09 pm CST. The tornado was 50 yards wide and only travelled two tenths of a mile before dissipating 1.8 miles northeast of Ringle around 3:11 pm CST.

Event 110: May 31, 1998

The tornado developed a half mile north of Stockbridge in Calumet County around 1:20 am CST. The F/EF-1 tornado was 75 yards wide and travelled 1.4 miles before dissipating 2 miles northeast of Stockbridge around 1:24 am CST. The tornado destroyed a garage and silo, damaged two barns and overturned farm vehicles. A 2-by-4 was driven through the exterior wall of a house, narrowly missing one of the sleeping children.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 111: May 1, 2001

The tornado (F/EF-1) developed four tenths of a mile north of Minocqua in Oneida County around 8:55 pm CST. The tornado moved about a quarter of a mile before lifting of the ground. The tornado touched down again 1.8 miles east northeast of Minocqua and stayed on the ground for over a mile before dissipating around 9 pm CST. The tornado was 125 yards wide and was on the ground for about a mile and a half. Many pine trees were snapped 15 to 30 feet above the ground. A five unit storage building was completely removed from its slab and a number of homes were damaged by fallen trees.

Event 112: April 18, 2002

The F/EF-1 tornado formed 3 miles southeast of Stratford in Marathon County around 6:13 pm CST. The tornado was 100 yards wide and travelled 14 miles before dissipating 6 miles northwest of Mosinee around 6:27 pm CST. The tornado downed hundreds of trees, while numerous barns and farm sheds were destroyed by a combination of the tornado and straight line winds. Plows had to be used to clear trees from some of the roads.

Event 113: September 2, 2002

The F/EF-1 tornado developed 6 miles northwest of Wausau in Marathon County around 5:35 pm CST. The tornado was 200 yards wide and was on the ground for five miles before dissipating 4 miles northeast of Wausau around 5:43 pm CST. The tornado destroyed two barns, a garage and a shed. It also snapped hundreds of trees, heavily damaged 6 homes and caused minor damage to 25 others. At least two vehicles traveling on Highway 51 were blown off the road. A trailer being towed by one of the vehicles was blown over and a large road sign hit the vehicle. The driver was injured and transported to the hospital.

Event 114: September 30, 2002

The F/EF-1 tornado touched down in southeast Florence County, five and a half miles south southeast of Spread Eagle around 6:10 pm CST. The tornado was 400 yards wide and travelled seven tenths of a mile before dissipating five and a half miles southeast of Spread Eagle around 6:11 pm CST. The tornado destroyed a pole barn, a garage that was under construction and 6 to 10 outbuildings. 150 to 250 trees and power lines were downed, causing numerous power outages. The tornado tracked east-northeast across the Menominee River into upper Michigan where it continued to do damage.

Event 115: August 3, 2003

The F/EF-1 tornado touched down three tenths of a mile west of Potter in Calumet County around 1:59 pm CST. The tornado was 75 yards wide and was on the ground for nearly a half mile before dissipating two tenths of a mile east northeast of Potter around 2:03 pm CST. The tornado damaged several houses, outbuildings and trees around Potter.

Event 116: June 23, 2004

The F/EF-1 tornado touched down 3 miles west northwest of Almond around 6:46 pm CST. The tornado was 25 yards wide and was on the ground for a mile and a half before dissipating 3 miles north northeast of Almond around 6:48 pm CST. The tornado knocked down several trees and a fence, damaged the roof of a house and damaged some outbuildings.

Event 117: June 23, 2004

The F/EF-1 tornado touched down 3 miles southeast of Blaine in southeastern Portage County around 6:53 pm CST. The tornado was 100 yards wide and travelled two and a half miles to 5 miles southeast of Blaine at 6:56 pm CST. The tornado downed trees and overturned an irrigation system.

Event 118: June 23, 2004

The F/EF-1 tornado touched down in at least four locations from Little Chute to Kaukauna in Outagamie County between 8 pm and 8:08 pm CST. The tornado was 100 yards wide and travelled 3.5 miles before dissipating. The tornado toppled or twisted large trees, ripped parts of the roofs from residential and commercial buildings, destroyed storage sheds and an old barn. Semi-trailers were overturned, some of them onto other vehicles.

Event 119: July 13, 2004

The F/EF-1 tornado touched down 1.4 miles northwest of Clark Mills in Manitowoc County around 2:40 pm CST. The tornado was 500 yards wide and travelled just over four miles before dissipating 2.8 miles southeast of Clark Mills around 2:52 pm CST. The tornado caused extensive damage two farms. The tornado destroyed two garages, two barns, two milking parlors and three silos. The tornado also destroyed 45 calf hutches and about 80 acres of alfalfa. The tornado snapped and uprooted trees and carried a calf about a half a mile away where it was found still alive.

Event 120: August 18, 2005

The F/EF-1 tornado developed 6 miles east northeast of Wrightstown in Brown County around 7:45 pm CST. The tornado was 100 yards wide and travelled one mile before dissipating 6.8 miles east northeast of Wrightstown at 7:49 pm CST. About 75 trees were downed or snapped and several structures along its path were destroyed. Two wooden garages were destroyed and debris scattered for several hundred feet. The walls of a house that were under construction were blown down. A part of a steel roof of a commercial building was damaged. A heavy wooden bench was picked up from the front porch and thrown several hundred feet away behind the house. The tornado was part of a record tornado outbreak in Wisconsin.

Event 121: August 18, 2005

The F/EF-1 tornado developed six and a half miles south southwest of Manitowoc in Manitowoc County at 8:35 pm CST. The tornado was 100 yards wide and travelled one and a half miles before dissipating 5.7 miles south of Manitowoc at 8:39 pm CST. The tornado damaged a farm, snapped or uprooted around 50 large trees while several hay wagons and trailers were overturned. A concrete silo was destroyed and another damaged. The roof of a barn sustained extensive damage. Part of the barn and silo were found in trees a third of a mile away. The tornado was part of a record tornado outbreak in Wisconsin.

Event 122: June 7, 2007

The F/EF-1 tornado developed a half mile west of Cedarville in Marinette County around 4:37 pm CST. The tornado was 200 yards wide and travelled three miles before it dissipated 2.5 miles east northeast of Cedarville around 4:40 pm CST. The tornado tore a significant portion of the roof from one home, snapped a few trees and uprooted numerous others. A manufactured home was moved off its foundation and down an embankment.

Event 123: June 7, 2007

The F/EF-1 tornado developed three and a half miles west of Harmony in Marinette County around 5:16 pm CST. The tornado was 200 yards wide and travelled 3.6 miles before dissipating 1.2 miles north of Harmony, or 2.9 miles south-southwest of Porterfield. One person was injured by flying debris as she sought refuge in their home. The tornado flattened a barn, tore a significant part of a sheet metal roof from an outbuilding, blew in a garage door and tore part of a roof deck over the garage from a home that was under construction.

Event 124: July 19, 2008

A brief F/EF-1 tornado touched down 3.8 miles west northwest of Menasha in Winnebago County around 10:44 pm CST. The tornado was 40 yards wide and travelled a half a mile before it dissipated 3.4 miles west northwest of Menasha at 10:45 pm CST. The tornado produced sporadic damage along a narrow path almost a half a mile long. An apartment complex sustained the heaviest damage. Four buildings were affected, two of which lost parts of their roofs.

Event 125: May 4, 2010

The F/EF-1 tornado touched down 2.7 miles southeast of Zittau in Winnebago County around 6:10 pm CST. The tornado was 100 yards wide and travelled seven tenths of a mile before it dissipated 2.7 miles west of Winchester at 6:12 pm CST. The tornado snapped numerous pine trees in a wooded area and threw a gazebo into the side of a house. The tornado also destroyed a 100 year old barn.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 126: August 20, 2010

The F/EF-1 tornado touched down 2 miles southeast of Greenleaf in Brown County at 3:20 pm CST. The tornado travelled just over 1.25 miles and was 75 yards wide before dissipating 2.7 ESE of Greenleaf at 3:22 pm CST. When the tornado initially touched down, several trees were snapped and uprooted. The tornado then destroyed a relatively new barn constructed of metal wall panels and roof. Pieces of the roof and wall were strewn over 100 yards from the site. About 50 to 100 yards on either side of the damaged barn small outbuildings and trees were untouched. The tornado continued east-northeast to another farm and heavily damaged a metal building which contained hay bales. Large parts of the metal roof were thrown over 200 yards. Numerous trees along the patch were snapped or uprooted. Estimated maximum winds were 90 mph. The tornado dissipated just north of the Holland State Wildlife Area.

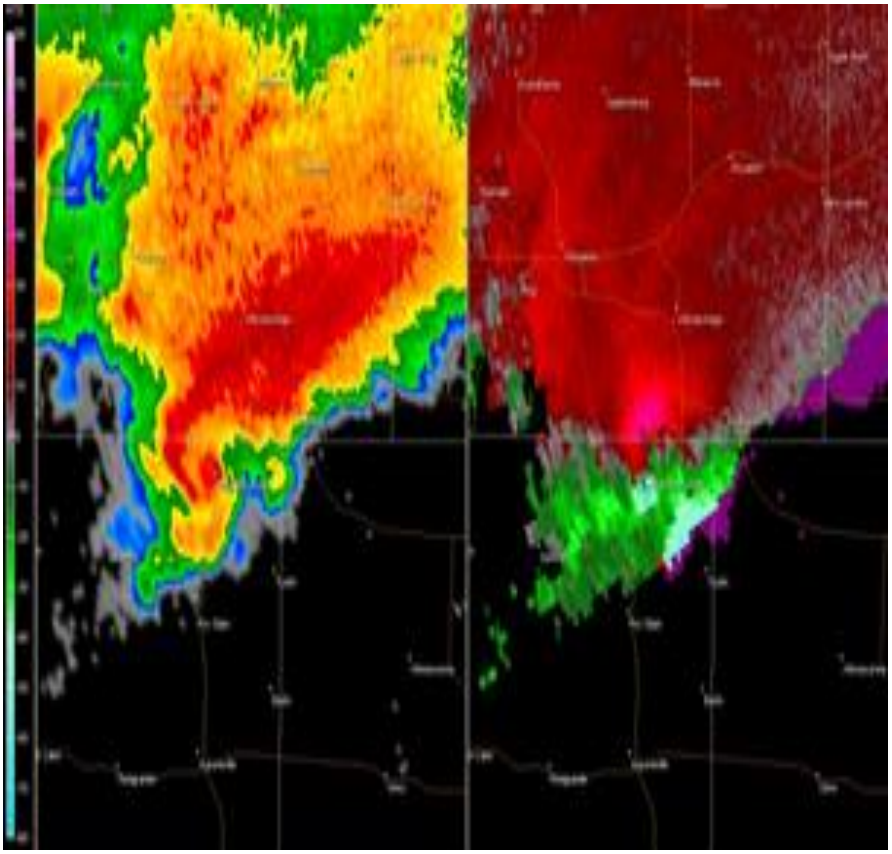
Event 127: April 10, 2011

The F/EF-1 tornado moved out of Adams County and entered Waushara County at 5:35 pm CST about 1.8 miles northwest of Coloma. The worst damage occurred just inside the Waushara County line. A mobile home roof was torn off and roof damage was noted to several homes. The average width of the tornado was about 80 yards.

Event 128: April 10, 2011

The F/EF-1 tornado formed about 5 miles south of Parrish around 5:50 pm CST and moved just east of north for a little over five miles. The tornado affected about 1600 acres of hardwood and softwood trees. It was estimated that over one million trees were snapped, uprooted or suffered serious damage. The loss to timber alone is estimated at over one million dollars. One cabin was destroyed by fallen trees. The tornado was seen by a storm chaser at 5:55 pm CST. The average width of the tornado was 250 yards.

Event 129: April 10, 2011



Note: Radar image from NWS Green Bay

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed with the debris strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST. The tornado, which was not on the ground the entire time, damaged a couple of farm buildings just south of Hortonville before it dissipated. One of the buildings lost part of its roof. The average width was 100 yards.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 130: April 10, 2011

The F/EF-1 tornado developed 0.3 miles northwest of Poy Sippi, then moved east-northeast over the north shore of Lake Poygan. The tornado then entered Winnebago County at 7:04 pm CST. In Waushara County, the tornado damaged a house and destroyed a barn in the Poy Sippi area. Another barn was flattened near the north shore of Lake Poygan. Many pine trees were uprooted or snapped along the path of the storm. The average path width in Waushara County was 100 yards. In Winnebago County, the tornado moved along the north shore of Lake Poygan, causing most of the damage near Boom Bay on the northeast shore of Lake Poygan. Two homes were heavily damaged as portions of their roofs were partially ripped off. Several other houses sustained lesser damage in this area. In addition, two small mobile homes were rolled on their side and many trees were uprooted or snapped. The tornado dissipated about 2 miles west of Winchester, although damage occurred east and southeast of this location from straight-line thunderstorm winds. The average path width in Winnebago County was 100 yards.

Event 131: April 10, 2011

The F/EF-1 tornado (2nd tornado on this day) formed in Forest County about four miles west of Armstrong Creek at 7:03 pm CST. The tornado snapped and uprooted trees and damaged two houses. One of the houses sustained significant roof damage as the tornado moved across the area. The average width of the tornado was 125 yards.

Event 132: April 10, 2011

A brief F/EF-1 tornado touched down about a mile and a half south of Greenleaf. The tornado damaged the tops of two silos and then ripped the roof off a barn. Average width of the tornado was 75 yards.

Event 133: April 10, 2011

A brief F/EF-1 tornado moved off Lake Winnebago and onshore south of Stockbridge just before 8 pm CST. The waterspout was seen as it moved onshore, damaging two homes. A three season room on one of the houses was ripped off the structure. The tornado moved northeast and tore a section off the roof of a large outbuilding. The top s of trees were snapped in two areas along the path of the tornado. The average width of the tornado was 75 yards.

Event 134: May 22, 2011

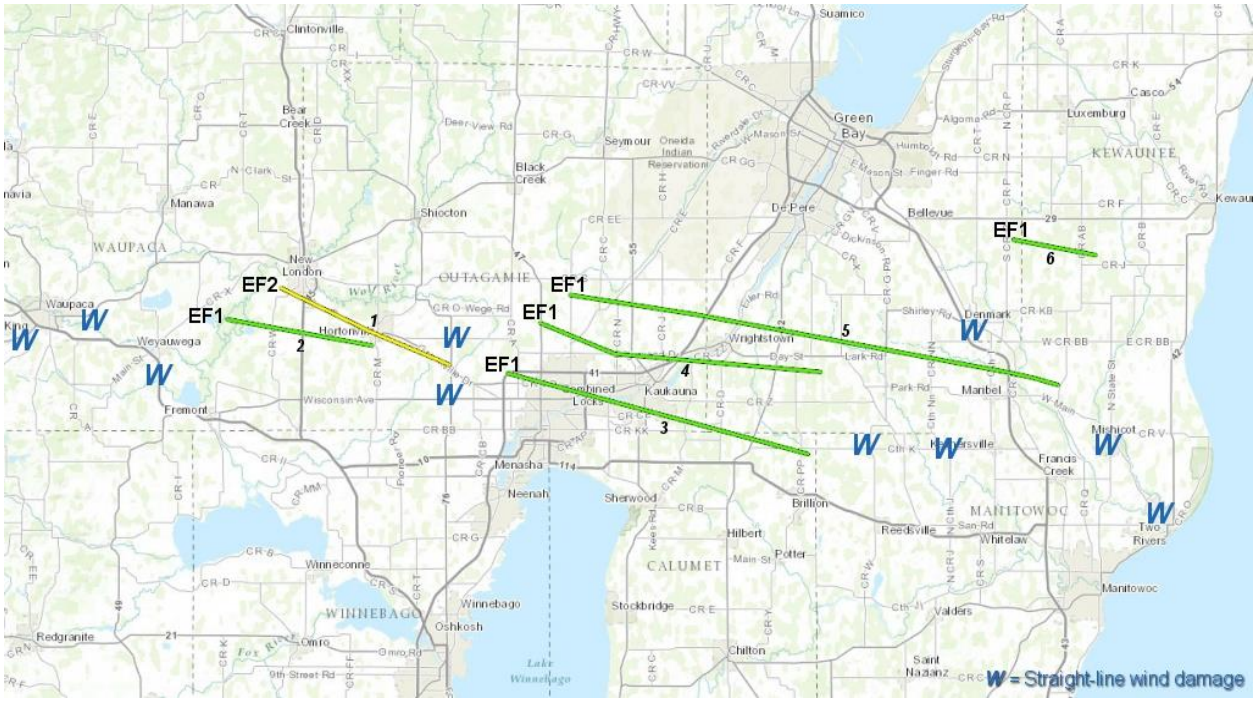
The F/EF-1 tornado moved out of Juneau County at 5:03 pm CST and moved across southern Wood County. The storm hit a campground on the east shore of the Wisconsin River about three miles south of Nekoosa. Over 100 pine trees were snapped and uprooted on the campground, some two feet in diameter. Several camper vehicles were damaged by fallen trees. The tornado was seen by campground visitors just before 5:15 pm CST. The tornado continued east-northeast and snapped or uprooted hundreds of additional trees south of Wisconsin Rapids. The storm damaged at least six homes and several other buildings about six miles south-southeast of Wisconsin Rapids. One of the houses lost the entire roof of a garage. A woman was in the garage at the time. She sustained injuries when the garage fell on the truck that she was taking shelter in. This area experienced a high-end F/EF-1 damage with winds at least 95 to 105 mph. The tornado entered Portage County around 5:20 pm CST. The tornado moved across mainly farmland. The twister continued to snap trees and overturn agricultural irrigation systems. About six miles south of Plover, a nearly half-mile long row of power poles were bent over. The tornado crossed Interstate 39 at Coddington Road two miles west of Keene. The tornado grew to nearly 700 yards wide as it passed just north of Keene and heavily damaged a farmstead. A silo was damaged and a barn was flattened. Several outbuildings were also damaged or destroyed. Along the path, at least two dozen irrigation systems were overturned and damaged resulting in over one million dollars in losses. Many hundreds of trees were snapped or uprooted. This area experienced high end F/EF-1 damage with winds of 100 to 110 mph. The tornado dissipated about 9 miles southeast of Plover at 5:46 pm CST. The average width was 300 yards in Portage County.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

Event 135: August 19, 2011

The F/EF-1 tornado quickly developed northwest of the city of Wausaukee during the late afternoon and moved southeast for nearly eight miles before dissipating. The twister touched down near Long Lake, snapping or uprooting hundreds of trees as it moved towards Wausaukee. A mobile home near Long Lake was heavily damaged by fallen trees, but the occupants escaped without injury. As the tornado moved into Wausaukee, it leveled another mobile home killing a 46 year old male. Two additional buildings on the property sustained damage including a house that lost part of its roof. Two semi-trailers on the property were blown over. The tornado continued southeast, damaging a baseball field and hundreds of additional trees on the east side of Wausaukee. The tornado reached the Menominee River and briefly crossed into Upper Michigan before moving back into Wisconsin and dissipating near Highway 180. One tree fell on a home near Deer Lane Road.

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 136: August 6, 2013

The first of six late night tornadoes to strike Northeast Wisconsin on this date, The (F/EF-1) tornado touched down four miles north northeast of Partridge Lake in Waupaca County at 11:22 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado hit a campground, blowing several camper trailers over. Two people sustained minor injuries at the campground. Over one hundred trees were snapped or uprooted along the path in Waupaca County. The tornado moved into Outagamie County about 3.1 miles south of New London at 11:26 am CST. The tornado damaged or uprooted trees as it moved across Outagamie County. Based on radar analysis, the circulation of this tornado may have merged with the other tornado that was occurring concurrently in the county near Hortonville. The tornado travelled 9.8 miles before dissipating eight tenths of a mile west southwest of Hortonville at 11:30 pm CST. The maximum width of the tornado in Outagamie and Waupaca Counties was 125 yards, with an average width of 75 yards in both counties.

Event 137: August 6, 2013

The third of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down four tenths of a mile west of Mackville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado caused a barn to collapse, and heavily damaged a boat showroom in Little Chute. Another barn lost part of its roof northwest of Kaukauna. Damage to trees was sporadic as it moved through Outagamie County. The maximum width of the tornado in Outagamie County 175 yards, with an average width of one hundred yards. The tornado moved into southern Brown County, about two miles southwest of Wrightstown around 11:48 pm CST. In Brown County, the tornado uprooted or snapped dozens of trees as it moved east, just south of Greenleaf. A house lost an attached garage when winds blew in the garage door and caused a large portion of the garage roof to lift off. The walls of a nearby building collapsed. The maximum width of the tornado in Brown County was 175 yards and average with was 125 yards. The tornado travelled 19.2 miles before dissipating 2.7 miles west of Morrison at 23:53 pm CST.

Event 138: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.

Event 139: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the county. The tornado in Manitowoc County has a maximum width of 250 yards and average width of 125 yards. The tornado travelled thirty-three miles across three counties before dissipating.

TORNADO REFERENCE GUIDE - F/EF-1 TORNADOES / WATERSPOUTS

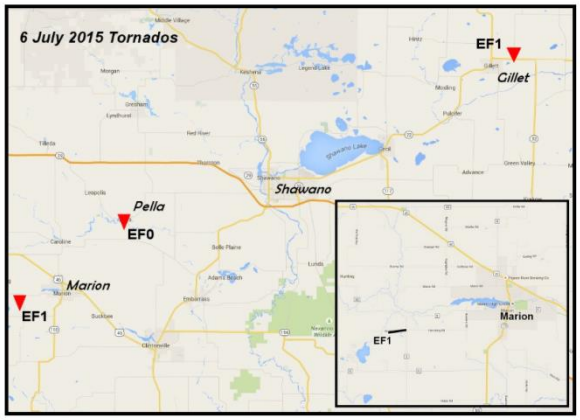
Event 140: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

Event 141: July 6, 2015

An F/EF-0 tornado touched down at 2:31 pm CST 3.4 miles west of Marion (see map next page) in Waupaca County. The tornado travelled three quarters of a mile and had a maximum width of 75 yards wide before dissipating 2.7 miles west of Marion at 2:40 pm CST. The tornado heavily damaged a bard and adjacent garage. The roof of a nearby house was damaged and winds of another home were broken. At least two dozen trees were uprooted or snapped. The average path width was 50 yards.

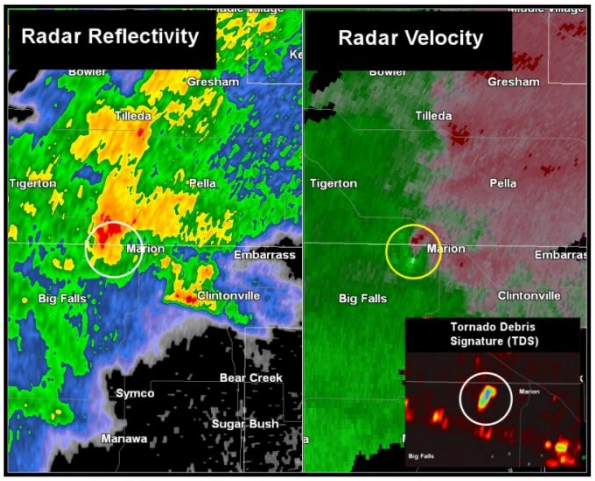
This was one of three tornadoes that touched down in northeast Wisconsin on this date. What was unusual about this event was there was no thunder noted with the tornadoes (very rare!). The radar image shows in the intense rotation west of Marion.



***Preliminary** Tornado Map (above). Red triangles denote **approximate** location of brief tornado touchdowns. Inset above denotes the location of the EF1 tornado west of Marion, Wisconsin.*

Tornado	Begin	End	Path
Marion EF1	4:38 PM, 3 W Marion	4:40 PM, 2.6 W Marion	Length: 0.4 mi Width: 75 yards
Pella EF0	5:03 PM, 2 E Pella	5:03 PM, 2 E Pella	Length: 0.1 mi Width: 25 yards
Gillett EF1	5:56 PM, 2 E Gillett	6:03 PM, 3 ENE Gillett	Length: 2.2 mi Width: 50 yards

The first tornado developed just ahead of the main line of showers over northern Waupaca County. This storm quickly attained supercell characteristics and generated a brief **EF1** tornado about three miles west of Marion in extreme northern Waupaca County (***see map insert above* and radar images below**).



Radar reflectivity (above Left) and radar velocity (above right) around time of the EF1 tornado west of Marion. Insert in the above image is the dual polarization correlation coefficient (CC) product denoting the location of debris produced by the tornado.

Event 141: July 6, 2015 continued

Here are some damge photos from the Marion tomado:

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	5	28	1959	1530	6 SW De Pere	Brown
2	6	23	1962	1900	15 E Stevens Point	Portage
3	5	30	1964	1328	Green Bay - Bellevue	Brown
4	7	25	1966	1820	0.5 E Maplewood	Door
5	7	2	1969	1600	Symco	Waupaca
6	5	21	1970	2010	Green Bay - north side	Brown
7	6	17	1970	1835	3 S Wisconsin Rapids	Wood
8	4	22	1971	1730	4 SW Hilbert	Calumet
9	7	30	1971	0700	4 E Oshkosh (waterspout)	Winnebago
10	6	14	1980	1422	5 N Rhinelander	Oneida
11	7	3	1983	1911	5 NE Nekoosa	Wood
12	4	27	1984	0405	Saratoga	Wood
13	7	14	1984	2035	1 SE Peshtigo	Marinette
14	7	26	1984	1300-1310	5 E Oshkosh (waterspout)	Winnebago
15	7	4	1985	1703-1717	1 N Redgranite - 1 SW Pine River	Waushara
16	8	12	1985	1930-1945	1 N Richford	Waushara
17	5	8	1988	1712	3 W Keene	Portage
18	8	1	1988	1820	3 S Hazelhurst	Oneida
19	8	1	1988	1922	2 SE Eagle River	Vilas
20	9	19	1988	1605	1 E Plainfield	Waushara
21	9	19	1988	1637	1 W Edgar	Marathon
22	5	24	1989	2115	1 E Cooperstown	Manitowoc
23	9	14	1991	1800	2 W Green Valley	Shawano
24	6	17	1992	1255	2 NE Denmark	Brown
25	6	8	1993	1838	2.5 S Spring Lake - 2 W Auroraville	Waushara
26	6	8	1993	1915	0.5 E Dakota - 2 S Redgranite	Waushara
27	6	8	1993	1935-1945	5 SE Redgranite - 3 SE Auroraville	Waushara
28	6	8	1993	1735	1 E Pickett	Winnebago
29	8	9	1993	2015	1 N Tripoli	Oneida
30	4	24	1994	1525	3 S Luxemburg	Kewaunee
31	7	4	1994	1649	4 W Fremont	Waupaca
32	6	29	1995	1105	10 SW Kewaunee	Kewaunee
33	4	25	1996	1755-1757	2 W Pensaukee	Oconto
34	6	11	1996	1608-1609	5 NW Chilton	Calumet
35	7	18	1996	1745	5 NE Oshkosh (waterspout)	Winnebago
36	7	18	1996	1810	5.9 S Chilton	Calumet
37	7	18	1996	1815-1816	2.2 WNW - 1.8 W St Anna	Calumet
38	7	16	1997	1500-1502	4 SW - 4.2 SW Hogarty	Marathon
39	7	16	1997	1500-1501	3 N Sunset	Marathon
40	7	16	1997	1520-1522	2 N - 1.8 N Elderon	Marathon
41	7	16	1997	1641-1642	Hancock	Waushara
42	3	29	1998	1928-1935	3 W - 3 N Tomahawk	Lincoln
43	5	31	1998	0020-0021	4 WSW Mosinee	Marathon
44	6	16	1998	1500	3 WNW Coloma	Waushara
45	8	23	199	1522	Menasha	Winnebago

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	5	5	1999	1630-1631	1 WNW Tomahawk	Lincoln
47	8	3	1999	1745	3 W Pittsville	Wood
48	5	12	2000	1043	5 WNW St. Nazianz	Manitowoc
49	7	13	2000	1455	1.5 NE Forestville	Door
50	7	27	2000	1907-1910	1.5 W - 1.1 WSW Harmony	Marinette
51	7	27	2000	1930	1.7 W Peshtigo	Marinette
52	8	14	2000	1910	Lake Tomahawk	Oneida
53	9	6	2001	1809-1814	0.3 SSW Pelican Lake to 1.3 NNE Pelican Lake	Oneida
54	4	18	2002	1549	2 W Bradley	Lincoln
55	4	18	2002	1557	6 SW Woodboro	Oneida
56	4	18	2002	1633	4 E Rhinelander	Oneida
57	4	18	2002	1832	6 SSW Wausau Airport	Marathon
58	5	6	2002	1630-1640	5 NW - 2.5 N Winneconne	Winnebago
59	5	6	2002	1702	8 N Oshkosh - Wittman Field	Winnebago
60	7	30	2002	1747-1750	10.5- 9.5 NW Merrill	Lincoln
61	7	30	2002	1808-1828	5 N - 9.5 NE Merrill	Lincoln
62	7	30	2002	1822-1828	3 W - 0.8 W Central Wisconsin Airport	Marathon
63	7	30	2002	1825	8.5 NE Merrill	Lincoln
64	9	2	2002	1704-1706	5.2 W - 5 W Athens	Marathon
65	6	8	2003	1140	4 W Oshkosh - Wittman Field	Winnebago
66	6	8	2003	1220-1226	5 E - 5.5 ESE Oshkosh Wittman Field	Winnebago
67	6	8	2003	1242-1246	4.3 W - 4.1 WSW Brothertown	Calumet
68	6	8	2003	1259-1302	4 S - 4.1 S Marshfield Airport	Wood
69	5	23	2004	0547	2.7 E Reedsville	Manitowoc
70	6	23	2004	1847	Whiting	Portage
71	6	23	2004	2027	Green Bay – northwest	Brown
72	7	11	2004	1442-1445	8 SW Harshaw	Oneida
73	7	11	2004	1543	1 W Goodnow	Oneida
74	7	11	2004	1545	Irma	Lincoln
75	7	11	2004	1613	6 W Tomahawk	Lincoln
76	7	11	2004	1613	6 W Tomahawk	Lincoln
77	7	11	2004	1640	4 W Tomahawk	Lincoln
78	5	6	2005	1524-1525	7 ESE - 7.8 ESE Oshkosh - Wittman Field	Winnebago
79	5	6	2005	1525-1529	5 WSW - 3.7 SW Brothertown	Calumet
80	6	4	2005	1354	1 E - 1.1 ENE Auroraville	Waushara
81	6	4	2005	1405	2 NW Borth	Waushara
82	6	4	2005	1527	4 W - 4.5 WNW Edgar	Marathon
83	6	4	2005	1539-1542	1 W - 1.5 NW Athens	Marathon
84	6	4	2005	1706	4 S Athens	Marathon
85	6	4	2005	1720	3 W Marathon	Marathon
86	6	4	2005	1918	7 S Hogarty	Marathon
87	6	9	2005	1740-1750	5 SE - 5 E Oshkosh	Winnebago
88	6	9	2005	1814	4 NW Stockbridge	Calumet
89	6	10	2005	1303	4 W Mosinee	Marathon
90	6	10	2005	1505	1 N Winneconne	Winnebago
91	6	10	2005	1510	2 W Clintonville	Waupaca

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
92	6	10	2005	1910	4 ESE Oshkosh	Winnebago
93	6	10	2005	1922	3 E Oshkosh	Winnebago
94	6	10	2005	1948	3 E Oshkosh	Winnebago
95	6	13	2005	1449-1450	4.1 NNE - 4 NNE Black Creek	Outagamie
96	8	18	2005	1732	6 WSW - 3.7 SW Wautoma	Waushara
97	8	18	2005	1838-1841	4 SSW to 3.4 SW New London	Waupaca
98	8	18	2005	1840-1848	4.5 W - 2.6 NW Neenah	Winnebago
99	9	13	2005	1709-1712	De Pere to Allouez	Brown
100	6	24	2006	1614-1615	4 W Sherwood	Calumet
101	6	3	2007	1811	1.6 ESE Shawano	Shawano
102	6	7	2007	1526	2.2 W - 2.1 W Wisconsin Rapids Airport	Wood
103	5	25	2008	2000-2001	3 ENE Knowlton	Marathon
104	7	29	2008	1527	3.6 NW Granite Heights	Marathon
105	7	29	2008	1559-1600	6.3 NNW of Kalinke	Marathon
106	7	29	2008	1744-1749	4.2 SE Nasonville to 4.7 WNW Bethel	Wood
107	5	4	2010	1813-1817	2.2 SSW Winchester to 0.8 NNW Larsen	Winnebago
108	7	14	2010	1618-1619	2.5 WSW Veedum – 2.2 WSW Veedum	Wood
109	5	22	2011	1805	5 NE Algoma (waterspout)	Kewaunee
110	8	23	2011	1658	0.3 NW Arpin	Wood
111	8	23	2011	1756-157	0.9 – 1.1 SE Briarton	Shawano
112	8	23	2011	2005-2006	0.8 ENE - 1.3 E Sherwood	Calumet
113	5	24	2012	1801-1807	3.7 SSE – 4.8 ENE Marathon	Marathon
114	8	9	2012	1210-1220	6 S Kewaunee	Kewaunee
115	8	9	2012	1225-1235	6 S Kewaunee	Kewaunee
116	9	18	2012	1701	3 W Sister Bay	Door
117	7	9	2013	1359-1404	0.5 NE Schultz - 3.9 W Bloomville	Lincoln
118	7	9	2013	1432-1456	10.8 S Parrish - 3.1 W Deerbrook	Langlade
119	7	9	2013	1644-1645	4.2 S Bancroft	Portage
120	7	9	2013	1850-1854	4.4 NNE Oconto to 5.2 NNE Oconto	Oconto
121	7	27	2014	1805	3.5 SE Oshkosh Wittman Field (waterspout)	Winnebago
122	8	18	2014	1523-1525	3.3 NE Winchester – 4.0 NNE Larsen	Winnebago
123	5	17	2015	1431-1440	1.6 WSW Morgan – 3.4 NE Morgan	Shawano
124	6	15	2015	1409-1410	1.5 NNW Glenmore – 1.4 NNW Glenmore	Brown
125	7	6	2015	1603-1604	1.1 E Pella Airport	Waupaca
126	7	6	2015	1656-1703	2.2 ENE Gillette – 2.6 SSW Kelly Brook	Oconto

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 1: May 28, 1959

The F/EF-0 tornado touched down 6 miles southwest of De Pere in Brown County around 3:30 pm CST.

Event 2: June 23, 1962

The F/EF-0 tornado touched down 15 miles east of Stevens Point in Portage County around 7 pm CST.

Event 3: May 30, 1964

The F/EF-0 tornado momentarily touched down in a field northeast of Bellevue in Brown County around 1:28 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 4: July 25, 1966:

The F/EF-0 tornado touched down about a half mile east of Maplewood in Door County around 6:20 pm CST. The tornado was 20 yards wide and travelled approximately two miles. An interesting note to the local storm report from July 1966 indicated a strong waterspout was noted over the Bay of Green Bay. According to the local storm report, a waterspout lifted several boats out of the water dropping one on a car at Ephraim. It also dropped twelve large trees down at Gordon Lodge. This tornado/waterspout was not documented in this study.

Event 5: July 2, 1969

The F/EF-0 tornado touched down in Symco in Waupaca County around 4 pm CST. The tornado was 100 yards wide and travelled 4.3 miles before dissipating. The tornado produced extensive damage to buildings on the Howard Winter farm between Manawa and Big Falls. Utility wires were also damaged along Highway 22 near Symco.

Event 6: May 21, 1970:

An airplane pilot reported the F/EF-0 tornado just northeast of Green Bay along the shores of the bay of Green Bay in Brown County around 8:10 pm CST. The tornado became a waterspout about four miles northeast of Green Bay. The tornado/waterspout was less than 50 yards wide and was on the ground for about two miles

Event 7: June 17, 1970

The F/EF-0 touched down briefly 3 miles south of Wisconsin Rapids in Wood County around 6:35 pm CST. The tornado was 100 yards wide and only travelled a tenth of a mile. According to the monthly storm report, the tornado touched down in open country.

Event 8: April 22, 1971

The F/EF-0 tornado touched down briefly 4 miles southwest of Hilbert in Calumet County around 5:30 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile.

Event 9: July 30, 1971

Numerous waterspouts (F/EF-0) were reported about 4 miles east of Oshkosh in Winnebago County around 7 am CST. The waterspouts formed east of Oshkosh as cold air with large cyclonic vorticity moved over the warm lake according to the monthly storm report.

Event 10: June 14, 1980

The F/EF-0 tornado was reported 5 miles north of Rhinelander by the Oneida County sheriff's department at 2:22 pm CST. The brief tornado touched down in a rural area. There was no documentation on path length or width of the tornado.

Event 11: July 3, 1983:

The F/EF-0 tornado briefly touched down 5 miles northeast of Nekoosa in Wood County around 7:11 pm CST. The tornado was approximately 10 yards wide and travelled three tenths of a mile before dissipating.

Event 12: April 27, 1984:

The F/EF-0 tornado briefly touched down in the township of Saratoga in Wood County around 4:05 am CST. The tornado was 50 yards wide and travelled a mile before dissipating. Numerous trees were downed and some residential damage occurred. Hail the size of three quarters of an inch also fell during the storm.

Event 13: July 14, 1984

The F/EF-0 touched down near County trunks BB and B one mile southeast of Peshtigo in Marinette County around 8:35 pm CST. The tornado was 25 yards wide and travelled only a tenth of a mile. Numerous trees and power lines were downed and there was minor damage to a home.

Event 14: July 26, 1984

A waterspout (F/EF-0) was noted 5 miles east of Oshkosh on Lake Winnebago in Winnebago County between 1 pm and 1:10 pm CST.

Event 15: July 4, 1985:

The F/EF-0 tornado touched down one mile north of Redgranite in Waushara County around 5:03 pm CST. The tornado was 50 yards wide and skipped along for 5 miles before dissipating one mile southwest of Pine River around 5:17 pm CST. The tornado damaged a house one mile southwest of Pine River. The storm also produced hail up to three and a half inches in the Richford and Hancock areas. The large hail dented 47 new cars at a dealership in Coloma.

Event 16: August 12, 1985

The F/EF-0 tornado touched down one mile north of Richford in Waushara County around 7:30 pm CST. The tornado was 100 yards wide and travelled a half mile before dissipating. The tornado flattened 2 barns, damaged 5 homes and leveled many trees. Several sheds in Richford were destroyed and extensive window and roof damaged occurred.

Event 17: May 8, 1988

The F/EF-0 tornado touched down in rural areas 3 miles west of Keene in Portage County around 5:12 pm CST. The tornado was 25 yards wide and travelled a mile before dissipating.

Event 18: August 1, 1988

A brief tornado (F/EF-0) occurred 3 miles south of Hazelhurst in Oneida County around 6:20 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. The tornado damaged some trees.

Event 19: August 1, 1988

A brief tornado (F/EF-0) occurred 2 miles southeast of Eagle River in Vilas County around 7:22 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile. The tornado damaged some trees.

Event 20: September 19, 1988

A brief tornado (F/EF-0) developed one mile east of Plainfield in Waushara County at 4:05 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 21: September 19, 1988

A brief tornado (F/EF-0) developed one mile west of Edgar in Marathon County at 4:37 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 22: May 24, 1989

A brief tornado (F/EF-0) touched down one mile east of Cooperstown in Manitowoc County at 9:15 pm CST. The tornado was 50 yards wide and travelled two tenths of a mile before dissipating.

Event 23: September 14, 1991

The F/EF-0 tornado touched down briefly 2 miles west of Green Valley in Shawano County around 6:00 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Damage was confined to some trees and a pair of sheds.

Event 24: June 17, 1992

The F/EF-0 tornado briefly touched down in an open field 2 miles northeast of Denmark in Brown County around 12:55 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile.

Event 25: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed two and a half miles south of Spring Lake around 6:38 pm CST. The tornado was 25 yards wide and travelled 8 miles before dissipating at 6:55 pm CST two miles west of Auroraville. Only minor damage was noted.

Event 26: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed a half mile east of Dakota around 7:15 pm CST. The tornado was 35 yards wide and travelled 12 miles before dissipating around 7:35 pm CST two miles south of Redgranite. Only minor damage was noted.

Event 27: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado touched down 5 miles southeast of Redgranite around 7:35 pm CST. The tornado was 25 yards wide and travelled 6 miles before dissipating at 7:45 pm three miles southeast of Auroraville. Only minor damage was noted.

Event 28: June 8, 1993

The F/EF-0 small tornado briefly touched down in an open filed one mile east of Pickett in Winnebago County around 5:35 pm CST. The tornado was 25 yards wide and travelled a tenth of a mile.

Event 29: August 9, 1993

The F/EF-0 tornado touched down one mile north of Tripoli in Oneida County around 8:15 pm CST. The tornado was 50 yards wide and travelled three tenths of a mile. Little damaged was noted with this tornado.

Event 30: April 24, 1994

The F/EF-0 tornado touched down 3 miles south of Luxemburg in Kewaunee County around 3:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. No damage was reported with this storm.

Event 31: July 4, 1994

The F/EF-0 tornado touched down 4 miles west of Fremont in Waupaca County around 4:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado did not produce any significant damage.

Event 32: June 29, 1995

The F/EF-0 tornado touched down 10 miles southwest of Kewaunee in Kewaunee County around 11:05 am CST. The tornado was 10 yards wide and travelled a tenth of a mile. The weak tornado touched down only for a few seconds in southern Kewaunee County. Minimal crop damage was reported since this brief tornado occurred in open rural country. The tornado appeared to form on the Lake Michigan lake breeze.

Event 33: April 25, 1996

A cold-core F/EF-0 tornado briefly touched down 2 miles west of Pensaukee in Oconto County around 5:55 pm CST. The tornado was 40 yards wide and travelled a tenth of a mile before dissipating around 5:57 pm CST. Several 6 to 8 inches diameter birch trees were knocked down.

Event 34: June 11, 1996

The F/EF-0 tornado briefly touched down 5 miles northwest of Chilton in Calumet County near the intersection of County Trunk BB and Killsnake Road around 4:08 pm CST. The tornado was 30 yards wide and was on the ground for a tenth of a mile before dissipating around 4:09 pm CST. The tornado threw a pile of lumber 30 feet in the air, tore shingles off of a shed and broke a window.

Event 35: July 18, 1996

A waterspout (F/EF-0) was spotted 5 miles east of Oshkosh over Lake Winnebago in Winnebago County around 5:45 pm CST.

Event 36: July 18, 1996

The F/EF-0 developed 5.9 miles south of Chilton in Calumet County around 6:10 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado moved over a squad car, violently shaking it about. The tornado flattened portions of two nearby wheat fields.

Event 37: July 18, 1996

The F/EF-0 tornado developed 2.2 miles west northwest of St. Anna in Calumet County around 6:15 pm CST. The tornado was 50 yards wide and travelled a half mile before dissipating 1.8 miles west of St. Anna around 6:16 pm CST. The tornado damaged one farm, numerous trees and some crops. Calf houses at the farm were thrown 1,000 feet. The tornado entered Fond Du Lac County 1.6 miles southeast of Jericho and then reentered Calumet County 2.2 west north of St. Anna.

Event 38: July 16, 1997

The F/EF-0 tornado developed 4 miles southwest of Hogarty in Marathon County around 3 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 4.2 miles southwest of Hogarty around 3:01 pm CST.

Event 39: July 16, 1997

The F/EF-0 tornado touched down 3 miles north of Sunset in Marathon County around 3 pm CST. The tornado was 15 yards wide and was on the ground for a tenth of a mile before dissipating at 3:01 pm CST.

Event 40: July 16, 1997

The F/EF-0 tornado touched down 2 miles north of Elderon in Marathon County around 3:20 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 1.8 miles north of Elderon around 3:22 pm CST.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 41: July 16, 1997

The F/EF-0 tornado touched down in Hancock in Waushara County at 4:41 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating at 4:42 pm CST. The tornado touched down in an open field in Hancock.

Event 42: March 29, 1998

The F/EF-0 tornado touched down in 3 miles west of Tomahawk in Lincoln County at 7:28 pm CST. The tornado was 75 yards wide and travelled four and a half miles before dissipating 3 miles north of Tomahawk at 7:35 pm CST. The tornado damaged several sheds, garages and a pole building west of Tomahawk. The storm also downed many power poles, disrupting power to thousands of customers.

Event 43: May 31, 1998

A brief F/EF-0 tornado touched down 4 miles west southwest of Mosinee in Marathon County at 12:20 am CST. The tornado was 50 yards wide and was on the ground for two tenths of a mile before it dissipated 3.8 miles west southwest of Mosinee at 12:21 am CST.

Event 44: June 16, 1998

The F/EF-0 was designated a landspout in the monthly storm report. The tornado touched down 3 miles west northwest of Coloma in Waushara County at 3 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was reported.

Event 45: August 23, 1998

A brief F/EF-0 tornado touched down near Menasha in Winnebago Count at 3:22 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating. No damage was noted on the monthly storm report.

Event 46: May 5, 1999

The F/EF-0 tornado touched down one mile west northwest of Tomahawk in Lincoln County at 4:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile before dissipating at 4:31 pm CST.

Event 47: August 3, 1999

The F/EF-0 tornado briefly touched down 3 miles west of Pittsville in Wood County at 5:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado knocked down trees 3 miles west of Pittsville.

Event 48: May 12, 2000:

A brief (F/EF-0) tornado touched down 5 miles west northwest of St. Nazianz in Manitowoc County at 10:43 am CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No damage was reported with the tornado. The thunderstorms that produced the tornado were some of the most devastating thunderstorms to move across northeast Wisconsin. The combination of 100 mph straight line winds and 2 inch hail produced very serious damage in St. Nazianz. Thirty people were injured by the storm in Manitowoc County with 100 homes destroyed by the wind and hail.

Event 49: July 13, 2000

The F/EF-0 tornado touched down 1.5 miles northeast of Forestville in Door County at 2:55 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage.

Event 50: July 27, 2000

The F/EF-0 tornado first touched down 1.5 miles west of Harmony in Marinette County at 7:07 pm CST. The tornado was 50 yards wide and was on the ground for four tenths of a mile before it dissipated 1.1 miles west southwest of Harmony at 7:10 pm CST. Another tornado (F/EF-0) occurred at 7:30 pm CST 1.7 miles west of Peshtigo. The first tornado report was received even before the storm became visible on radar.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 51: July 27, 2000

A brief F/EF-0 tornado touched down 1.7 miles west of Peshtigo in Marinette County at 7:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile.

Event 52: August 14, 2000

A brief F/EF-0 tornado touched down at Lake Tomahawk in Oneida County at 7:10 pm CST. The tornado was 25 yards wide and was on the ground a tenth of a mile. The tornado damaged trees in the Lake Tomahawk area.

Event 53: September 6, 2001

The F/EF-0 tornado touched down three tenths of a mile south southwest of Pelican Lake in Oneida County around 6:09 pm CST. The tornado was 30 yards wide and was on the ground for a half mile before dissipating 1.3 miles north northeast of Pelican Lake around 6:14 pm CST. The tornado caused minor damage to the Pelican Lake Supper Club, blew the roof off a nearby house and destroyed a garage. The tornado also caused minor damage to the Pelican Lake Town Hall and uprooted several trees.

Event 54: April 18, 2002

A brief F/EF-0 tornado touched down 2 miles west of Bradley in Lincoln County at 3:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 55: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles southwest of Woodboro in Oneida County at 3:57 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 56: April 18, 2002

A brief F/EF-0 tornado touched down 4 miles east of Rhinelander in Oneida County around 4:33 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 57: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles south southwest of the Wausau Airport in Marathon County around 6:32 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 58: May 6, 2002

The F/EF-0 tornado touched down 5 miles northwest of Winneconne in Winnebago County around 4:30 pm CST. The tornado was 50 yards wide and travelled four miles on the ground before dissipating 2.5 miles north of Winneconne around 4:40 pm CST. The tornado moved across Lake Winneconne.

Event 59: May 6, 2002

A brief F/EF-0 tornado touched down 8 miles north of Wittman Field in Oshkosh in Winnebago County at 5:02 pm CST. The tornado was 20 yards wide and was only on the ground for a tenth of a mile. No damage was noted with the tornado.

Event 60: July 30, 2002

The F/EF-0 tornado touched down ten and a half miles west of Merrill in Lincoln County around 5:47 pm CST. The tornado was 150 yards wide and skipped along the ground for 1.2 miles before dissipating nine and a half miles west of Merrill around 5:50 pm CST.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 61: July 30, 2002

The F/EF-0 tornado developed 5 miles north of Merrill in Lincoln County at 6:08 pm CST. The tornado was 200 yards wide and travelled on the ground for 9 miles before dissipating nine and a half miles northeast of Merrill at 6:28 pm CST. The tornado destroyed a barn and another structure, tearing roofs from some buildings and moving others from their foundation.

Event 62: July 30, 2002

The F/EF-0 tornado developed 3 miles west of the Central Wisconsin Airport in Marathon County at 6:22 pm CST. The tornado was 100 yards wide and travelled just over 2 miles on the ground before dissipating eight tenths of a mile west of the Central Wisconsin Airport at 6:28 pm CST. The tornado caused significant tree damage on a hill east of the Wisconsin River.

Event 63: July 30, 2002

The F/EF-0 tornado formed 8.5 miles northeast of Merrill in Lincoln County at 6:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado demolished a mobile home and snapped trees and tree limbs.

Event 64: September 2, 2002

The F/EF-0 tornado touched down 5.2 miles west of Athens in Marathon County at 5:04 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile before dissipating at 5:06 pm CST. The tornado caused minimal damage.

Event 65: June 8, 2003

A brief F/EF-0 tornado touched down 4 miles west of Oshkosh in Winnebago County at 11:40 am CST. The tornado was 15 yards wide and travelled a tenth of a mile before dissipating.

Event 66: June 8, 2003

A waterspout (F/EF-0) was photographed about 5 miles east of Oshkosh Wittman Field in Winnebago County at 12:20 pm CST. The waterspout was 40 yards wide and travelled a half mile before dissipating 5.5 miles east southeast of Oshkosh Wittman Field. The waterspout was observed by numerous participants of a fishing tournament that was taking place on the lake.

Photo by Troy Peterson

Event 67: June 8, 2003

A waterspout (F/EF-0) was reported 4.3 miles west of Brothertown in Calumet County at 12:42 pm CST. The waterspout was 40 yards wide and travelled four tenths of a mile before dissipating 4.1 miles west southwest of Brothertown at 12:46 pm CST.

Event 68: June 8, 2003

The F/EF-0 tornado touched down 4 miles south of the Marshfield Municipal Airport in Marshfield in Wood County at 12:59 pm CST. The tornado was 50 yards wide and travelled a tenth of a mile before dissipating 4.1 miles south of the Marshfield Municipal Airport at 1:02 pm CST. The tornado tore siding from a garage, broke windows, destroyed a play house and dog house, and blew two 50 pound barrels 200 yards away.

Event 69: May 23, 2004

The F/EF-0 tornado touched down 2.7 miles east of Reedsville in Manitowoc County at 5:47 am CST. The tornado was 75 yards wide and was on the ground for a tenth of a mile. The tornado damaged shingles and siding on a house and snapped trees and large branches.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 70: June 23, 2004

The F/EF-0 tornado touched down in Whiting in Portage County at 6:47 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado caused minor tree damage in an industrial park in Whiting. Eyewitnesses observed water being sucked out of a pond at the same time as doors to an office was sucked open.

Event 71: June 23, 2004

A brief F/EF-0 tornado touched down on the northwest side of Green Bay in Brown County at 8:27 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile. The tornado caused some tree damage.

Event 72: July 11, 2004

A brief F/EF-0 tornado touched down 8 miles southwest of Harshaw in Oneida County at 2:42 pm CST. The tornado was 60 yards wide and was on the ground for two tenths of a mile before dissipating at 2:45 pm CST. The tornado topped numerous trees onto power lines and damaged a pontoon boat.

Event 73: July 11, 2004

A brief F/EF-0 tornado touched down one mile west of Goodnow in Oneida County at 3:43 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 74: July 11, 2004

A brief F/EF-0 tornado touched down in Irma in Lincoln County at 3:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 75: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 76: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 77: July 11, 2004

A brief F/EF-0 tornado touched down 4 miles west of Tomahawk in Lincoln County at 4:40 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 78: May 6, 2005

The F/EF-0 waterspout touched down 7 miles east southeast of Oshkosh Wittman Field in Winnebago County at 3:24 pm CST. The waterspout was 50 yards wide and was on the ground for eight tenths of a mile before dissipating 7.8 miles east southeast of Oshkosh Wittman Field at 3:25 pm CST.

Event 79: May 6, 2005

The F/EF-0 waterspout touched down 5 miles west southwest of Brothertown in Calumet County at 3:25 pm CST. The water spout was 50 yards wide and was on the water for over a mile and a half before dissipating 3.7 miles southwest of Brothertown at 3:29 pm CST.

Event 80: June 4, 2005

The F/EF-0 touched down one mile east of Auroraville in Waushara County at 1:54 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile. No significant damage was noted from this tornado.

Event 81: June 4, 2005

The F/EF-0 touched down 2 miles northwest of Borth in Waushara County at 2:05 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No significant damage was noted from this tornado.

Event 82: June 4, 2005

The F/EF-0 touched down 4 miles west of Edgar in Marathon County at 3:27 pm CST. The tornado was 75 yards wide and was on the ground for 1.2 miles before dissipating four and a half miles west northwest of Edgar at 3:29 pm CST. No damage was noted in the month storm report for this tornado.

Event 83: June 4, 2005

The F/EF-0 touched down a mile west of Athens in Marathon County at 3:39 pm CST. The tornado was 100 yards wide and was on the ground for 1.3 miles before the tornado dissipated a mile and a half northwest of Athens at 3:42 pm CST. The tornado downed some trees, flattened a barn and tore the roof from another barn.

Event 84: June 4, 2005

The F/EF-0 touched down 4 miles south of Athens in Marathon County at 5:06 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 85: June 4, 2005

The F/EF-0 touched down 3 miles west of Marathon in Marathon County at 5:20 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 86: June 4, 2005

The F/EF-0 touched down 7 miles south of Hogarty in Marathon County at 7:18 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 87: June 9, 2005

A waterspout (F/EF-0) touched down 5 miles southeast of Oshkosh on Lake Winnebago in Winnebago County at 5:40 pm CST. The waterspout was 40 yards wide and travelled 3 miles before dissipating 5 miles east of Oshkosh at 5:50 pm CST.

Event 88: June 9, 2005

A waterspout (F/EF-0) touched down 4 miles northwest of Stockbridge on Lake Winnebago in Calumet County at 6:14 pm CST. The waterspout was 25 yards wide and was on the water for a tenth of a mile.

Event 89: June 10, 2005

The F/EF-0 tornado touched down 4 miles west of Mosinee in Marathon County at 1:03 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was noted in the monthly storm data.

Event 90: June 10, 2005

The F/EF-0 tornado touched down one mile north of Winneconne in Winnebago County at 3:05 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 91: June 10, 2005

The F/EF-0 tornado touched down 2 miles west of Clintonville in Waupaca County at 3:10 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 92: June 10, 2005

A waterspout (F/EF-0) was reported 4 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:10 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 93: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:22 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 94: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:48 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 95: June 13, 2005

The F/EF-0 tornado touched down 4 miles north northeast of Black Creek in Outagamie County at 2:49 pm CST. The tornado was 75 yards wide and was on the ground two tenths of a mile before it dissipated 4.1 miles north northeast of Black Creek. The tornado knocked down a tree and caused damage to shingles at a residence.

Event 96: August 18, 2005

The F/EF-0 tornado touched down 6 miles west southwest of Wautoma in Waushara County at 5:32 pm CST. The tornado was 80 yards wide and was on the ground for two miles before dissipating 3.7 miles south of Wautoma at 5:36 pm CST. The tornado snapped off or uprooted many trees and caused damage to a few buildings and some farm equipment. A tree fell onto a large pole building, causing major damage to one of its sides. A porch at a residence was destroyed by a fallen tree limb; while a portion of the metal roof of a barn was torn from it and thrown about 200 feet. An irrigation system was also damaged.

Event 97: August 18, 2005

The F/EF-0 tornado touched down 4 miles south southwest of New London in Waupaca County at 6:38 pm CST. The tornado was 40 yards wide and was on the ground for 1.2 miles before dissipating 3.4 miles southwest of New London at 6:41 pm CST. The tornado snapped large trees and a few buildings in its path. The tornado shifted a large barn, destroyed a small metal shed and threw it about a quarter of a mile. An outbuilding was overturned and thrown 30 to 40 feet into a stand of trees.

Event 98: August 18, 2005

The F/EF-0 tornado touched down four and a half miles west of Neenah in Winnebago County at 6:40 pm CST. The tornado was 50 yards wide and was on the ground for 4 miles before dissipating 2.6 miles northwest of Neenah at 6:48 pm CST. The tornado downed trees, stripping some siding from a home and destroying a corn crib.

Event 99: September 13, 2005

The F/EF-0 tornado touched down in De Pere in Brown County at 5:09 pm CST. The tornado was 50 yards wide and the brief touchdowns lasted for 1.9 miles before the tornado dissipated in Allouez just north of Heritage Hill State Park at 5:12 pm CST. The tornado's occasional brief touchdowns topped numerous trees. Some of the trees caused damage to buildings and vehicles when they fell. The tornado caused little direct structural damage to any buildings.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 100: June 24, 2006

A waterspout (F/EF-0) was reported 4 miles west of Sherwood on Lake Winnebago in Calumet County at 4:14 pm CST. The waterspout remained nearly stationary for a minute before dissipating.

Event 101: June 3, 2007

A brief landspout (F/EF-0) was reported about 2 miles east southeast of Shawano in Shawano County at 6:11 pm CST. The landspout lasted 20 seconds and was observed and photographed. No damage was reported.

Event 102: June 7, 2007

The F/EF-0 tornado touched down 2 miles south of Wisconsin Rapids in Wood County at 3:26 pm CST. The brief tornado was seen by a storm chaser. The same storm also produced hail up to 5.5 inches in diameter in Port Edwards and Wisconsin Rapids.

Event 103: May 25, 2008

The F/EF-0 tornado touched down 3 miles east northeast of Knowlton in Marathon County at 8 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile before dissipating at 8:01 pm CST. Several apple trees were damaged in a narrow path. A pine tree fell on a shed as well. The tornado was on the ground for less than 30 seconds

Event 104: July 29, 2008

The F/EF-0 tornado briefly touched down 3.6 miles northwest of Granite Heights in Marathon County at 3:27 pm CST. The tornado was 15 yards wide and travelled a tenth of a mile. Law enforcement witnessed the brief tornado touchdown north of Brokaw near the Lincoln County border. No damage was reported.

Event 105: July 29, 2008

The F/EF-0 tornado briefly touched down 6.2 miles north northwest of Kalinke in Marathon County at 3:59 pm CST. The tornado was 25 yards wide and travelled a quarter of a mile before dissipating at 4 pm CST. The tornado touched down just south of County Line Road near County Road Q. Several trees in an open field were knocked over.

Event 106: July 29, 2008

The F/EF-0 tornado touched down 4.2 miles southeast of Nasonville in Wood County at 5:44 pm CST. The tornado was 25 yards wide and travelled a mile and a half before dissipating 4.7 miles west of Bethel at 5:49 pm CST. The tornado touched down north of Pittsville, tearing leaves and twigs from tops of trees. The tornado was seen by a county sheriff.

Event 107: May 4, 2010

The F/EF-0 tornado touched down 2.2 miles south southwest of Winchester in Winnebago County at 6:13 pm CST. The tornado was 100 yards wide and travelled 3.4 miles before dissipating 0.8 miles north northwest of Larsen at 6:17 pm CST. The tornado damaged several structures. It destroyed a shed, swirling 2 by 4's in the air. The 2 by 4's struck a house, damaging the roof. The tornado threw a trailer about 200 yards into a field and ripped siding off a garage. A small camper was knocked over.

Event 108: July 14, 2010

The F/EF-0 tornado touched down 2.5 miles west southwest of Veedum in Wood County at 4:18 pm CST. The tornado travelled a quarter of a mile and was 50 yards wide before it dissipated 2.2 miles west southwest of Veedum. The brief tornado was reported by the public and confirmed by local emergency management about 5 miles west of Pittsville. A dozen trees were knocked down and several large tree limbs fell onto a house. Wind speed estimated at 80 mph.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 109: May 22, 2011

A waterspout was observed over Lake Michigan about 5 miles northeast of Algoma.

Event 110: August 23, 2011

The F/EF-0 tornado was witnessed by local law enforcement. The tornado touched down for less than 10 seconds in a corn field. A couple of stalks of corn were thrown in the air, but no damage was reported. The F/EF-0 tornado was estimated to have winds around 60 mph.

Event 111: August 23, 2011

The F/EF-0 tornado touched down near Briarton shortly before 6 pm CST along Shady Road in Shawano County just north of the Outagamie County line. Tall grass and a hay field were flattened in a cyclonic pattern. In addition, about a dozen trees had snapped limbed. Peak winds were estimated at 65 to 70 mph. The average path width was 50 yards.

Event 112: August 23, 2011

The F/EF-0 tornado touched down less than a mile northeast of Sherwood at 8:05 pm CST. The F/EF-0 tornado toppled two trees that damaged the roof of a house and snapped or uprooted six pine trees near Highway M. The tornado continued east-southeast moving over a swamp. Swirl marks were seen in the thick swamp grass. The tornado then hit a farm on Kesler Road. Two old barns were heavily damaged. Peak winds were estimated at 85 mph with an average width of 75 yards.

Event 113: May 24, 2012

The F/EF-0 tornado formed 3.7 miles south southeast of Marathon at 601 pm CST and rapidly move northeast before dissipating 4.8 miles east northeast of Marathon at 6:07 pm. About 100 trees sustained large broken branches or were snapped by the tornado. No structures were damaged. The average path width was 50 yards.

Event 114: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:10 pm and 12:20 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 115: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:25 pm and 12:35 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 116: September 18, 2012

A brief (F/EF-0) waterspout was observed on the waters of the Bay of Green Bay three miles west of Sister Bay around 5:01 pm CST. The time of the event was estimated based on the time of 911 calls. A strong upper level trough and cold air aloft produced conditions favorable for waterspout formation on the waters of Green Bay.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 117: July 9, 2013

A tornado (F/EF-0) touched down 0.5 NE of Schultz, or about six miles south of Irma in Lincoln County at 1:59 pm CST. The tornado moved east for about 4.1 miles and was 100 yards wide (average width was 75 yards). A few trees and power lines were knocked down. The tornado dissipated 3.9 miles west of Bloomville at 2:04 pm CST.

Event 118: July 9, 2013

A tornado (F/EF-0) touched down 10.8 miles south of Parrish in Langlade County (near the Lincoln / Langlade County line) around 2:32 pm CST. The tornado traveled east for about nine and a half miles, although the tornado track was not continuous. The maximum width of the tornado was 100 yards, with an average width of 75 yards. The tornado damage was to trees and tree limbs. The tornado dissipated 3.1 miles west of Deerbrook at 2:56 pm CST.

Event 119: July 9, 2013

A tornado (F/EF-0) touched down 4.2 miles south of Bancroft in Portage County around 4:44 pm CST in an open field just west of Interstate 39. The tornado was observed by a storm spotter and did no damage. The maximum width was 25 yards and traveled less than two tenths of a mile before dissipating at 4:45 pm CST.

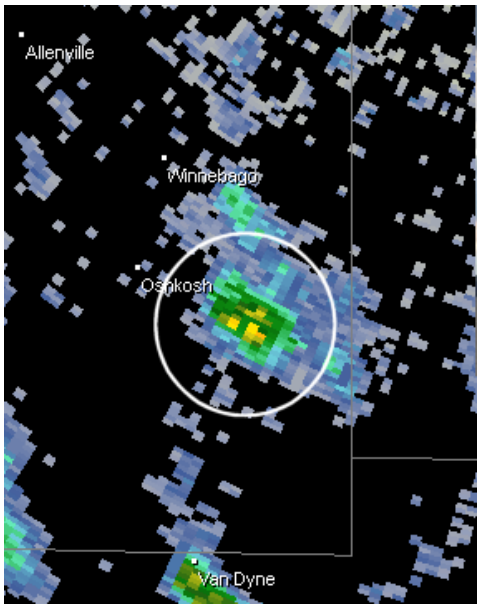
Event 120: July 9, 2013

A tornado (F/EF-0) touched down about four and a half miles north northeast of Oconto in Oconto County at 6:40 pm CST. The tornado was observed by an eyewitness just east of Highway 41 near Swede Town Road and County Road A. The tornado moved east for about a mile and half toward the bay before dissipating at 6:54 pm CST. Dozens of trees were snapped and uprooted, and also blew over a recreational vehicle trailer along its path. The maximum width of the tornado was one hundred yards with an average width of seventy-five yards.

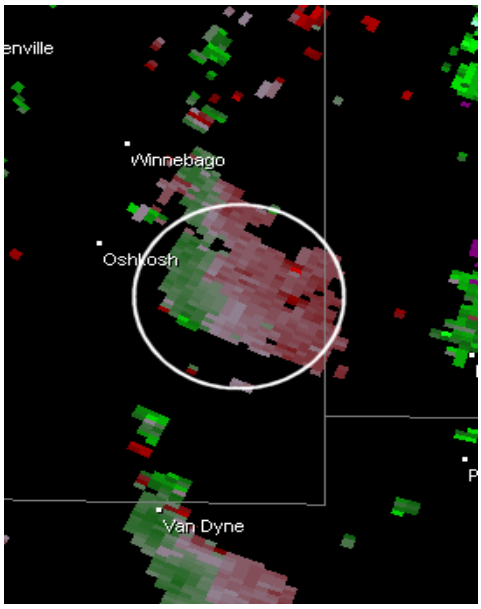
Event 121: July 27, 2014

A very weak and brief waterspout formed under a rain shower over southern Lake Winnebago, about 5 miles southeast of Oshkosh around 6:05 pm CST. The waterspout (photo below) was on the water for a just a few seconds and then dissipated. The parent funnel was seen by hundreds of people across the area. No damage occurred.

Photograph submitted to NWS.



Radar image: Green Bay radar.



Velocity image: Green Bay radar.

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 122: August 18, 2014

A tornado developed around 3:23 pm CST, causing minor damage as it moved east near Shady Lane a little over three miles northeast of Winchester in northern Winnebago County. The weak tornado EF-0 caused two single wood power poles to partially lean in saturated soil and knocked over a few trees and limbs. Swirl marks could be seen in a field of tall grass. The tornado was not in contact with the ground during the entire path length (a little over two miles) before ending around 3:25 pm CST. The maximum width of the tornado was 50 yards with estimated winds of 65 to 75 mph.

Event 123: May 17, 2015

The F/EF-0 tornado touched down at 2:31 pm CST just over a mile and a half west-southwest of Morgan in Shawano County. The tornado produced intermittent damage along a nearly five mile long path, dissipating at 2:40 pm CST just over three miles northeast of Morgan. At least a dozen trees along the path sustained damaged and a barn lost several shingles. The tornado had a maximum width of 75 yards.

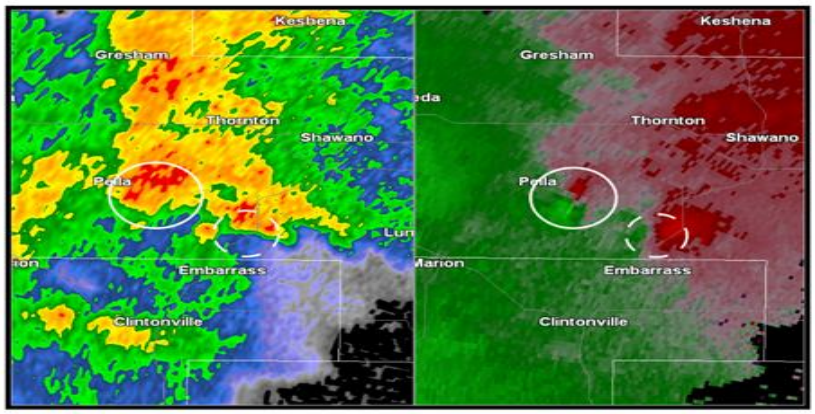
Event 124: June 15, 2015

A weak F/EF-0 tornado touched down at 2:31 pm CST a mile and a half north-northwest of Glenmore in Brown County. The tornado traveled just over a quarter of a mile and was 25 yards wide before the tornado dissipated 1.4 miles north-northwest of Glenmore. A swing set was toppled and a small metal shed was pushed twenty feet.

Event 125: July 6, 2015

An F/EF-0 tornado touched down at 4:03 pm CST just over a mile east of the Pella Airport in Shawano County. The tornado travelled nearly a tenth of a mile and was 25 yards wide before dissipating at 4:04 pm CST. The tornado tore off part of a barn and sent wooden pallets into a nearby field.

As this cell continued to move northeast into Shawano County, it produced another very weak tornado (**EF0**) that briefly touched down near Pella in central Shawano County around 5 pm CDT (***denoted by the white circle in the image below***). The dashed circle in the image below denotes a new circulation associated with a different cell that was developing to the southeast of the Pella (just north of Embarrass).



Radar reflectivity (above left) and velocity image (above right) associated with brief tornado touchdown near Pella (denoted by solid circle in the image above). Dashed circle denotes a new circulation that eventually produces a tornado near Gillett about 50 minutes later.

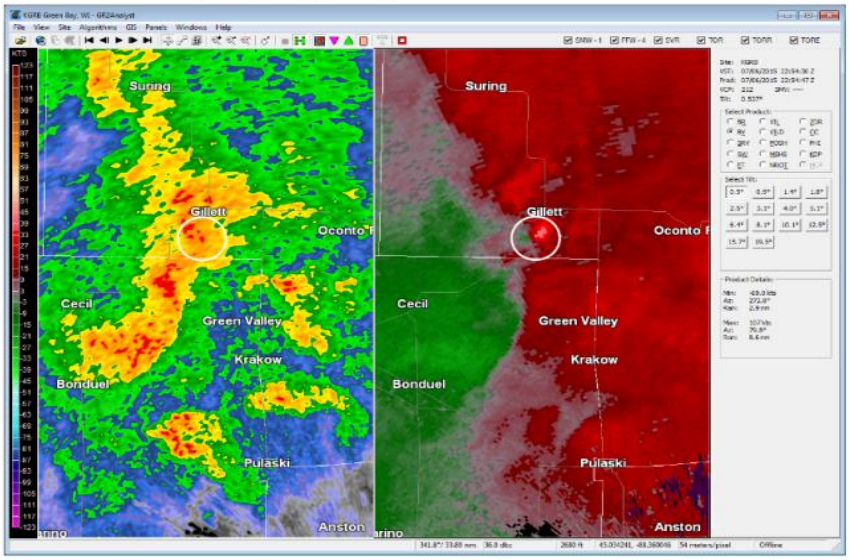
ere are some damge photos from the Pella tornado:

TORNADO REFERENCE GUIDE - F/EF-0 TORNADOES / WATERSPOUTS

Event 126: July 6, 2015

An F/EF-0 tornado touched down at 4:56 pm CST 2.2 miles east-northeast of Gillett in Oconto County. The tornado travelled two and a quarter miles and was 50 yards wild before dissipating 2.6 miles south-southwest of Kelly Brook at 5:03 pm CST. The tornado uprooted or snapped at least twenty trees and caused minor damage to a house.

This new cell north of Embarrass continued to organize and strengthen and eventually produced an **EF1** Tornado near Gillett in western Oconto County around 555 pm CDT (***see image below***).



Radar reflectivity (above left) and velocity (above right) denoting the location of the storm that produced an EF1 tornado near Gillett around 555 pm CDT.

Here are some damge photos from the Gillett tornado:

TORNADO REFERENCE GUIDE – WATERSPOUTS
(LAKE MICHIGAN AND THE BAY OF GREEN BAY)

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	23	1962	1630-1635	2 W Champion	Brown
2	5	21	1970	2010	Green Bay - north side	Brown
3	7	28	1991	1015	Near Rock Island	Door
4	7	28	1991	1015	Near Washington Island	Door
5	8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	Door
6	8	4	1999	1605-1615	21 ESE Sturgeon Bay	Door
7	9	9	1999	1455	3 N Sister Bay	Door
8	9	19	1999	1646-1710	8 SE Sturgeon Bay	Door
9	7	20	2000	1258	2 W Sister Bay	Door
10	4	23	2001	1326-1346	12 NW - 9 NW Sturgeon Bay	Door
11	6	4	2005	1730	5 E Kewaunee	Kewaunee
12	6	18	2006	1643	3 NW Sister Bay	Door
13	9	29	2006	0920-0955	Chambers Is. - 12 SE Cedar River	Door
14	6	20	2007	1606	6 NW Ellison Bay	Door
15	5	22	2011	1805	5 NE Algoma	Kewaunee
16	8	9	2012	1210-1220	6 S Kewaunee	Kewaunee
17	8	9	2012	1225-1235	6 S Kewaunee	Kewaunee
18	9	18	2012	1701	3 W Sister Bay	Door

TORNADO REFERENCE GUIDE – WATERSPOUTS
LAKE MICHIGAN AND THE BAY OF GREEN BAY

Event 1: June 23, 1962

The F/EF-1 tornado touched down 2 miles west of Champion in eastern Brown County around 4:30 pm CST. According to the local storm report for June of 1962, the tornado became or originated as a waterspout near Point Sauble as the storm was picking up water at times. The tornado/waterspout had a maximum width of 33 yards and travelled 3 miles before dissipating.

Event 2: May 21, 1970:

An airplane pilot reported the tornado just northeast of Green Bay along the shores of the bay of Green Bay in Brown County around 8:10 pm CST. The tornado became a waterspout about four miles northeast of Green Bay. The tornado/waterspout was less than 50 yards wide and was on the ground for about two miles

Event 3: July 28, 1991

A waterspout was reported near Rock Island across extreme northern Door County at 10:15 am CST. A second waterspout was reported near Washington Island.

Event 4: July 28, 1991

A waterspout was reported near Washington Island across extreme northern Door County around 10:15 am CST. A second waterspout was reported near Rock Island around the same time.

Event 5: August 23, 1998

A large waterspout developed over the bay of Green Bay around 5:15 pm CST. The waterspout moved on land and became a strong F/EF-3 tornado.

These photos were taken by Tom Janssen II at Murphy Park, which was hit by the tornado. The two on the left show the waterspout just after if developed, around 5:15 pm CST. The third picture was taken a little after 5:20 pm CST. The tornado was off the Door county shore over the Bay of Green Bay.

These pictures were taken by Gary Gridley, from Egg Harbor. The photo on the left was taken at 5:25 pm CST. The picture on the right was taken around 5:30 pm CST, as the tornado was coming onshore at Murphy Park.

Event 6: August 4, 1999

A waterspout (F/EF-0) was reported by a vessel on the lake 21 miles east southeast of Sturgeon Bay in Door County at 4:05 pm CST. The crew of the vessel observed two other waterspouts about 21 miles east southeast of Sturgeon Bay. The U.S. Coast Guard relayed the report they received from the vessel on the lake.

Event 7: September 9, 1999

A waterspout (F/EF-0) was reported 3 miles north of Sister Bay in Door County at 2:55 pm CST.

Event 8: September 19, 1999

The crew of a ship off the Door County shoreline, 8 miles southeast of Sturgeon Bay, spotted a waterspout (F/EF-0) at 4:46 pm CST which dissipated at 5:10 pm CST. There may have been other waterspouts in the vicinity of the one reported.

Event 9: July 20, 2000:

Boaters spotted a waterspout 2 miles west of Sister Bay in Door County at 12:58 pm CST.

Event 10: April 23, 2001

A waterspout F/EF-0 developed 6 miles west southwest of Fairland in Door County around 1:26 pm CST. The waterspout moved north along the shoreline before it dissipated 9 miles northwest of Sturgeon Bay around 1:46 pm CST.

Event 11: June 4, 2005

A waterspout (F/EF-0) touched down on Lake Michigan 5 miles east of Kewaunee in Kewaunee County at 5:30 pm CST.

Event 12: June 18, 2006

A waterspout (F/EF-0) was reported 3 miles northwest of Sister Bay in Door County at 4:43 pm CST.

Event 13: September 29, 2006

A waterspout (F/EF-0) was reported off Door County, from Chambers Island to 12 miles southeast of Cedar River, Michigan around 9:20 am CST. The last report of the waterspout was around 9:55 am CST.

Event 14: June 20, 2007

A waterspout (F/EF-0) was reported 6 miles northwest of Ellison Bay in Door County at 4:06 pm CST.

Event 15: May 22, 2011

A waterspout was observed over Lake Michigan about 5 miles northeast of Algoma.

Event 16: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:10 pm and 12:20 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 17: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:25 pm and 12:35 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 18: September 18, 2012

A brief (F/EF-0) waterspout was observed on the waters of the Bay of Green Bay three miles west of Sister Bay around 5:01 pm CST. The time of the event was estimated based on the time of 911 calls. A strong upper level trough and cold air aloft produced conditions favorable for waterspout formation on the waters of Green Bay.

TORNADO REFERENCE GUIDE – KILLER TORNADOES

2 DEATHS: June 25, 1950

The F/EF-4 tornado touched down one mile west of Woodboro in Oneida County around 9 pm CST and travelled 13.1 miles to five miles northeast of Rhinelander. The tornado reached a maximum width of 880 yards. Two deaths were reported in Oneida County.

6 DEATHS: September 26, 1951

The F/EF-4 tornado developed 9 miles south southwest of Amherst in Portage County around 345 pm CST. The tornado cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado travelled 22.3 miles and dissipated two miles southwest of Bear Creek in Waupaca County around 408 pm CST. The tornado reached a maximum width of 400 yards. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

2 DEATHS: April 3, 1956

A strong spring storm killed 43 people nationwide, including eight in Wisconsin on this date. The F/EF-2 tornado developed 3 miles south of Bancroft in Portage County around 12:50 pm CST. The tornado travelled 18.2 miles to two miles northwest of Amherst before dissipating. The tornado reached a maximum width of 100 yards. Two fatalities were reported in Portage County.

2 DEATHS: August 19, 1968

The funnel was first observed at about 4 pm CST near Breed, but remained aloft until three miles southwest of Pound. The F/EF-4 tornado developed 3 miles southwest of Pound around 4:15 pm CST and travelled 21 miles before dissipating in Marinette. The tornado moved east about 3 miles south of Highway 53, destroying farms near Pound and again just south of Marinette. Large hail three inches in diameter fell north of the tornado track. Two elderly brothers, John and Cecil Maloney were fatally injured as their farmhouse near Pound blew apart. A third brother James, who was in bed when the winds struck was found on some bed springs in a nearby cornfield. He was hospitalized in satisfactory condition. Two more people were injured at Marinette when the tornado struck near the airport. Nearly twenty counties were included in a series of thunderstorm warnings issued by the Weather Bureau.

1 DEATH: August 9, 1979

The F/EF-2 tornado touched down near Rockland Beach in Calumet County around 6:20 pm CST. The strong tornado only travelled about a mile and was fifty yards wide. One death was attributed to the tornado. A Rockland Beach woman died after the winds demolished the family home. She was crushed as the family's first floor fireplace fell through into the basement. The husband and three children were not hurt according to reports at the time.

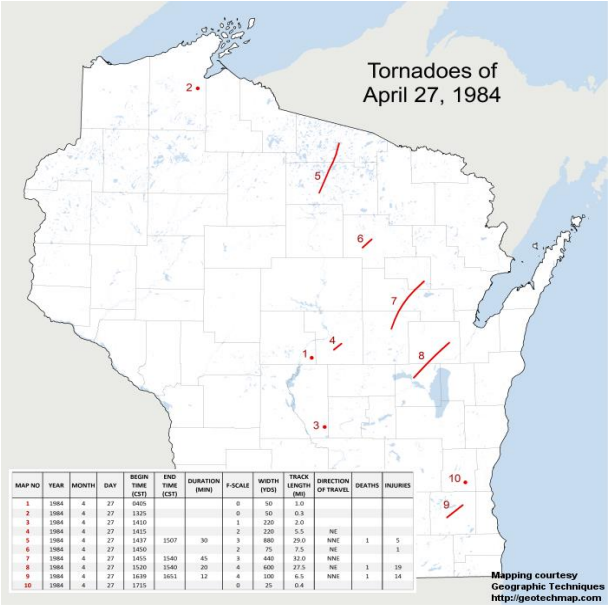
1 DEATH: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

TORNADO REFERENCE GUIDE – KILLER TORNADOES

1 DEATH: April 27, 1984

The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. This outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950.



MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0405			0	50	1.0			
2	1984	4	27	1325			0	50	0.3			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	880	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	19
9	1984	4	27	1639	1651	12	4	100	6.5	NNE	1	14
10	1984	4	27	1715			0	25	0.4			

The Fox Valley Tornado - Continued

Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado travelled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph).

2 DEATHS: June 8, 1985

A severe thunderstorm spawned a killer F/EF-3 tornado and dropped large hail as it rolled through Price and Oneida Counties, causing widespread property, crop and timber damage. The tornado skipped from Park Falls to about 15 miles southeast of Rhinelander. The tornado first touched down one mile west of Park Falls around 6:15 pm CST and moved through the southern portion of the city. In Park Falls, 125 buildings were damaged with 12 houses and businesses were heavily damaged or destroyed. 26 people received mostly minor injuries in Park Falls. The tornado continued southeast, cutting an eighteen mile and 1.5 mile wide swath through eastern Price County and into Minocqua in Oneida County where the tornado dissipated around 6:52 pm CST. Two people were killed and sixteen injured at Swamsauger Lake and Cedar Falls resort in the Willow Reservoir area in Oneida County. A man apparently drowned when the tornado lifted him and his house and deposited it into Swamsauger Lake. A woman was killed when a tree crashed through a vehicle in which she was seeking refuge. The tornado continued to the southwest portion of Rhinelander and then dissipated southeast of Monico. A total of 47 residences were heavily damaged or destroyed while another 43 more received some damage in Oneida County. 9,900 acres of timber and cranberry bogs were lost in Oneida County.

TORNADO REFERENCE GUIDE – KILLER TORNADOES

1 DEATH: August 29, 1992

The F/EF-3 tornado touched down east of Big Flats in Adams County around 7 pm CST. The tornado skipped along a five mile path, toppling trees and downing a 24 by 30 foot building. The killer tornado travelled a 28 mile path across Waushara County. The tornado developed around 710 pm just CST north of Coloma and then moved to Wautoma to just north of Redgranite and then southeast of Poy Sippi before dissipating around 7:55 pm CST. The hardest hit area was just south of Wautoma where a woman was killed when her mobile home was hurled several hundred feet into a parking lot. In addition, 30 people were injured, several critically. The tornado caused over ten million dollars in damage. All together, forty-eight homes were destroyed and ninety-five other structures sustained major damage, 289 received minor damage. 950 acres of trees were toppled by the tornadic winds.

1 DEATH: August 19, 2011

The F/EF-1 tornado quickly developed northwest of the city of Wausaukee during the late afternoon and moved southeast for nearly eight miles before dissipating. The twister touched down near Long Lake, snapping or uprooting hundreds of trees as it moved towards Wausaukee. A mobile home near Long Lake was heavily damaged by fallen trees, but the occupants escaped without injury. As the tornado moved into Wausaukee, it leveled another mobile home killing a 46 year old male. Two additional buildings on the property sustained damage including a house that lost part of its roof. Two semi-trailers on the property were blown over. The tornado continued southeast, damaging a baseball field and hundreds of additional trees on the east side of Wausaukee. The tornado reached the Menominee River and briefly crossed into Upper Michigan before moving back into Wisconsin and dissipating near Highway 180. One tree fell on a home near Deer Lane Road.

TORNADO REFERENCE GUIDE

GREEN BAY FORECAST AREA TORNADOES – MORNING TORNADOES (MIDNIGHT TO NOON)

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	2	6	20	1954	230-240	Rothschild to 6 NE Mosinee	Marathon
2	2	6	20	1954	0400	Brothertown	Calumet
3	1	5	4	1959	1030	Wausau	Marathon
4	1	5	4	1959	1145	Deerbrook	Langlade
5	2	5	6	1959	0320	Symco to 3 SE Clintonville	Outagamie, Waupaca
6	2	9	3	1961	0010	Fenwood	Marathon
7	1	9	3	1961	0100	Athens	Marathon
8	1	7	1	1967	0045	3 E Kiel	Manitowoc
9	2	6	30	1968	0400	3 NW Cavour	Forest
10	1	6	30	1968	0445	3 S Pembine	Marinette
11	1	12	1	1970	0700	Hull	Portage
12	2	12	1	1970	0900	12 SE Marshfield	Wood
13	2	12	1	1970	0945-1030	4 NW Iola - Pella	Shawano, Langlade, Oconto
14	3	12	1	1970	1010-1045	near Medina - Rose Lawn	Outagamie, Shawano
15	1	7	8	1971	0200	Wisconsin Rapids	Wood
16	0	7	30	1971	0700	4 E Oshkosh (waterspout)	Winnebago
17	1	3	11	1973	1030	2 E Calumetville	Calumet
18	1	6	18	1973	1100	2 W Athens	Marathon
19	1	7	12	1973	0300	Boulder Junction - Sayner	Vilas
20	1	7	12	1973	0730	Jacksonport	Door
21	1	7	12	1973	0800	4 W Freedom	Outagamie
22	2	6	16	1979	0930	Oconto Falls - 2 NE Lena	Oconto
23	1	8	4	1979	1000	Manitowoc	Manitowoc
24	2	6	7	1980	0020	Valders	Manitowoc
25	1	7	5	1980	0030	Valders	Manitowoc
26	2	4	4	1981	0035	4 W Kiel	Calumet
27	1	7	3	1983	0439	Eagle River	Vilas
28	0	4	27	1984	0405	Saratoga	Wood
29	0	7	28	1991	1015	** Near Rock Island	Door
30	0	7	28	1991	1015	** Near Washington Island	Door
31	0	6	29	1995	1105	10 SW Kewaunee	Kewaunee
32	2	8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	Marathon
33	1	8	7	1996	0146-0147	1 N - 1.2 NE Stratford	Marathon
34	1	8	7	1996	0219-0221	0.4 SW Shantytown - Shantytown	Marathon
35	0	5	31	1998	0020-0021	4 WSW Mosinee	Marathon
36	1	5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	Calumet
37	0	6	8	2003	1140	4 W Oshkosh - Wittman Field	Winnebago
38	0	5	23	2004	0547	2.7 E Reedsville	Manitowoc
39	0	9	29	2006	0920-0955	Chambers Is. - 12SE Cedar River(waterspout)	Door
40	1	8	6	2013	0005-0010	0.5 SSE Henrysville – 1 NE Stangelville	Brown, Kewaunee

Note: All times local standard time.

TORNADO REFERENCE GUIDE

GREEN BAY FORECAST AREA TORNADOES – MORNING TORNADOES (MID TO NOON)

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES

Note: All times local standard time.

TORNADO REFERENCE GUIDE

GREEN BAY FORECAST AREA TORNADOES – MORNING TORNADOES (MIDNIGHT TO NOON)

Event 1: June 20, 1954

The F/EF-2 tornado developed around 2:30 am CST in Rothschild in Marathon County. The tornado travelled approximately 6.3 miles and dissipated six miles northeast of Mosinee around 2:40 am CST. The maximum width of the tornado was 70 yards. Another tornado was reported in Brothertown in Calumet County around 4 am CST.

Event 2: June 20, 1954

The F/EF-2 tornado developed around 4 am CST in Brothertown in Calumet County. The tornado travelled one mile and had a maximum width of less than 50 yards.

Event 3: May 4, 1959

The F/EF-1 tornado was reported to touch down near Wausau in Marathon County around 10:30 am CST. The tornado was 200 yards wide and travelled a mile before dissipating near Wausau.

Event 4: May 4, 1959

The F/EF-1 tornado struck Deerbrook in Langlade County around 11:45 am CST. The tornado was 100 yards wide and was on the ground for a mile.

Event 5: May 6, 1959

The F/EF-2 tornado developed near Symco in Waupaca County and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 6: September 3, 1961

The F/EF-2 tornado touched down near Fenwood in Marathon County around 12:10 am CST and travelled about 2 miles. The tornado was 35 yards wide. Damage was confined to farm buildings and crops in rural western Marathon County.

Event 7: September 3, 1961

The F/EF-1 tornado touched down near Athens in Marathon County around 1 am CST. The tornado was 35 yards wide and was on the ground for 2 miles.

Event 8: July 1, 1967

The F/EF-1 tornado struck 3 miles east of Kiel in Manitowoc County around 12:45 am CST. The tornado was 50 yards wide and travelled a half mile before dissipating.

Event 9: June 30, 1968

The F/EF-2 tornado touched down 3 miles northwest of Cavour in Forest County around 4 am CST. The tornado travelled east northeast approximately one mile and had a maximum width of 200 yards. Several buildings were damaged on the Aschenbrenner Farm near Cavour.

Event 10: June 30, 1968

The F/EF-1 tornado touched down on the Zern property 3 miles south of Pembine in Marinette County around 4:45 am CST. The tornado was 100 yards wide and travelled on the ground for a half mile. Trees and a garage were destroyed by the tornado.

Event 11: December 1, 1970

A rare tornado event occurred across north central and northeast Wisconsin on this date. In all, there were four tornadoes on this date, including an F/EF-3. What made this event even more unusual was the time of day with all four tornadoes reported between 7 am and 10:45 am in the morning. The F/EF-1 tornado touched down on the Richard Rutta farm in the town of Hall north of Stevens Point in Portage County. The tornado was 200 yards wide and travelled nearly 3 miles before dissipating.

Event 12: December 1, 1970

Four rare December tornadoes were reported on this date across north-central and northeast Wisconsin. The F/EF-2 tornado touched down in Wood County 12 miles southeast of Marshfield or two miles southeast of Arpin on the Fred Cahler farm around 9 am CST. The tornado travelled 2 miles while reaching a maximum width of 200 yards before dissipating. Several farm buildings were destroyed or damaged on the Fred Cahler farm. The tornadoes on this day are on the only December tornadoes recorded in the NWS Green Bay Service area.

Event 13: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola in Waupaca County. The tornado moved east for 28 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 14: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina in Outagamie County. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards wide and dissipated around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

Event 15: July 8, 1971

The F/EF-1 tornado moved through open country just north of Wisconsin Rapids in Wood County around 2 am CST. The tornado was 75 yards wide and travelled about two miles before it dissipated. One house trailer moved off its foundation while there was damage to trees in the area.

Event 16: July 30, 1971

Numerous waterspouts (F/EF-0) were reported about 4 miles east of Oshkosh in Winnebago County around 7 am CST. The waterspouts formed east of Oshkosh as cold air with large cyclonic vorticity moved over the warm lake according to the monthly storm report.

Event 17: March 11, 1973

An early season F/EF-1 struck Calumet County, 2 miles east of Calumetville around 10:30 am CST. The tornado was 50 yards wide and travelled two miles before dissipating.

Event 18: June 18, 1973

The F/EF-1 tornado touched down on the Brunke Farm 2 miles west of Athens in Marathon County around 11 am CST. The tornado was 200 yards wide and travelled east for two miles before dissipating.

Event 19: July 12, 1973

The F/EF-1 tornado was struck touchdown just south of Boulder Junction in Vilas County around 3 am CST. The tornado was 100 yards wide and travelled 19.5 miles before dissipating near Sayner in Vilas County. Scattered damage to the woods was reported along the path of the tornado.

Event 20: July 12, 1973

The F/EF-1 tornado touched down in Jacksonport in Door County around 7:30 am CST. The tornado was 100 yards wide and travelled 3 miles. Scattered damage was reported west and south of Jacksonport. As many as six waterspouts were reported by one observer off Jacksonport. A seiche caused a drop of two feet in water level locally about fifteen minutes after passage of the storms.

Event 21: July 12, 1973

The F/EF-1 tornado developed 4 miles west of Freedom in Outagamie County around 8 am CST. The tornado was 100 yards wide and travelled one mile. Farm buildings were destroyed on the Ken Geiger farm 4 miles west of Freedom.

Event 22: June 16, 1979

The F/EF-2 tornado developed near Oconto Falls in Oconto County around 9:30 am CST. The tornado travelled just over 15 miles and reached a maximum width of 100 yards before dissipating 2 miles northeast of Lena. At least 17 frame and mobile homes along with numerous barns were damaged or destroyed. Heavy rains and large hail accompanied the tornado destroying crops along the thunderstorm path.

Event 23: August 4, 1979

The tornado (F/EF-1) struck near Manitowoc in Manitowoc County around 10 am CST. Several buildings on a farm were destroyed. There was no documentation on path length or width of the tornado.

Event 24: June 7, 1980

A brief F/EF-2 tornado touched down in Valders in Manitowoc County around 12:20 am CST. The tornado was less than 50 yards wide and was on the ground for less than a quarter of a mile. The brief touchdown resulted in the destruction of a large modern barn and heavy farm equipment. Field crops were beaten down in the vicinity of the storm.

Event 25: July 5, 1980

The F/EF-1 tornado struck the farm of Warren Otto just south of Valders in Manitowoc County around 12:30 am CST. There was no documentation on path length or width of the tornado. The tornado destroyed a barn and machine shed, and farm machinery on the Warren Otto farm. Other farm buildings in the area also sustained minor damage.

Event 26: April 4, 1981

A brief F/EF-2 tornado touched down around 12:35 am CST 4 miles west of Kiel in Calumet County. The tornado was only 25 yards wide and travelled about a quarter of a mile. Six trailers in a line in the Country Aire Trailer Court were destroyed. One trailer was lifted into the air and deposited upside down.

Event 27: July 3, 1983

The Eagle River Municipal Airport in Vilas County was hit by the F/EF-1 tornado at 4:39 am CST. The tornado was 20 yards wide and travelled a half mile before dissipating. Two single engine planes were destroyed and thirteen others were damaged. Five eighths inch ropes holding the planes down were shredded. One plane cart wheeled four hundred feet.

Event 28 April 27, 1984:

The F/EF-0 tornado briefly touched down in the township of Saratoga in Wood County around 4:05 am CST. The tornado was 50 yards wide and travelled a mile before dissipating. Numerous trees were downed and some residential damage occurred. Hail the size of three quarters of an inch also fell during the storm.

Event 29: July 28, 1991

A waterspout was reported near Rock Island across extreme northern Door County at 10:15 am CST. A second waterspout was reported near Washington Island.

Event 30: July 28, 1991

A waterspout was reported near Washington Island across extreme northern Door County around 10:15 am CST. A second waterspout was reported near Rock Island around the same time.

Event 31: June 29, 1995

The F/EF-0 tornado touched down 10 miles southwest of Kewaunee in Kewaunee County around 11:05 am CST. The tornado was 10 yards wide and travelled a tenth of a mile. The weak tornado touched down only for a few seconds in southern Kewaunee County. Minimal crop damage was reported since this brief tornado occurred in open rural country. The tornado appeared to form on the Lake Michigan lake breeze.

Event 32: August 7, 1996

The F/EF-2 tornado touched down six and a half miles north of Stratford in Marathon County around 1:45 am CST, tearing the top portion of a home off, flattened a garage, and snapped off several large trees. The tornado continued east northeast for two and a half miles and reached a maximum width of 200 yards before dissipating two and a half miles north northwest of Fenwood around 1:49 am CST. As the storm moved east, there was damage to a storage shed and thirty trees on a farm. A dozen of Ginseng shelters were thrown about. The tornado was not on the ground for the entire path.

Event 33: August 7, 1996

A brief F/EF-1 tornado touched down one mile north of Stratford in Marathon County around 1:46 am CST. The tornado was 100 yards wide and only travelled two tenths of a mile before dissipating 1.2 miles northeast of Stratford round 1:47 am CST. The tornado snapped off numerous large trees, some of which fell on the top of homes. In addition: a barn was flattened, a semi-trailer was flipped over and a car moved 75 feet.

Event 34: August 7, 1996

The F/EF-1 tornado touched down four tenths of a mile southwest of Shantytown in Manitowoc County around 2:19 am CST. The tornado was 100 yards wide and travelled nearly a half mile to Shantytown before dissipating around 2:21 am CST. The tornado tore a 100 yard swath through a cornfield. In Shantytown, the tornado tore the roof and garage off a home. Pieces of the roof were found one-quarter of a mile away from the home.

Event 35: May 31, 1998

A brief F/EF-0 tornado touched down 4 miles west southwest of Mosinee in Marathon County at 12:20 am CST. The tornado was 50 yards wide and was on the ground for two tenths of a mile before it dissipated 3.8 miles west southwest of Mosinee at 12:21 am CST.

Event 36: May 31, 1998

The tornado developed a half mile north of Stockbridge in Calumet County around 1:20 am CST. The F/EF-1 tornado was 75 yards wide and travelled 1.4 miles before dissipating 2 miles northeast of Stockbridge around 1:24 am CST. The tornado destroyed a garage and silo, damaged two barns and overturned farm vehicles. A 2-by-4 was driven through the exterior wall of a house, narrowly missing one of the sleeping children.

Event 37: June 8, 2003

A waterspout (F/EF-0) was reported 4.3 miles west of Brothertown in Calumet County at 12:42 pm CST. The waterspout was 40 yards wide and travelled four tenths of a mile before dissipating 4.1 miles west southwest of Brothertown at 12:46 pm CST.

Event 38: May 23, 2004

The F/EF-0 tornado touched down 2.7 miles east of Reedsville in Manitowoc County at 5:47 am CST. The tornado was 75 yards wide and was on the ground for a tenth of a mile. The tornado damaged shingles and siding on a house and snapped trees and large branches.

Event 39: September 29, 2006

A waterspout (F/EF-0) was reported off Door County, from Chambers Island to 12 miles southeast of Cedar River, Michigan around 9:20 am CST. The last report of the waterspout was around 9:55 am CST.

Event 40: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

TORNADO REFERENCE GUIDE – EARLY SEASON TORNADOES
EARLIEST DOCUMENTED TORNADOES DURING THE YEAR

RANK	#TOR	MONTH	DATE	YEAR	F / EF	COUNTY OR COUNTIES
1	1	3	11	1973	1	Calumet
2	1	3	29	1998	0	Lincoln
3	1	3	30	1982	1	Portage, Wood
4	1	3	31	1967	2	Wood
5T	1	4	3	1956	2	Portage
5T	1	4	3	1956	4	Waushara, Winnebago
7	1	4	4	1981	2	Calumet
8	1	4	6	1956	2	Waupaca
9T	1	4	10	2011	3	Marathon, Lincoln
9T	1	4	10	2011	1	Waushara
9T	1	4	10	2011	1	Langlade
9T	1	4	10	2011	1	Waushara, Waupaca, Outagamie
9T	1	4	10	2011	2	Forest, Florence
9T	1	4	10	2011	1	Waushara, Winnebago
9T	1	4	10	2011	1	Forest
9T	1	4	10	2011	2	Outagamie
9T	1	4	10	2011	1	Brown
9T	1	4	10	2011	1	Calumet
19T	1	4	12	1974	2	Marathon
19T	1	4	12	1974	2	Shawano
21	1	4	15	1954	2	Waushara
22T	1	4	18	2002	0	Lincoln
22T	1	4	18	2002	0	Oneida
22T	1	4	18	2002	0	Oneida
22T	1	4	18	2002	1	Marathon
22T	1	4	18	2002	0	Marathon
27T	1	4	19	1957	2	Waushara
27T	1	4	19	1957	1	Portage
29	1	4	20	1992	1	Wood

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE – LATE SEASON TORNADOES
LATEST DOCUMENTED TORNADOES DURING THE YEAR

RANK	# TOR	MONTH	DATE	YEAR	E/EF	COUNTY OR COUNTIES
1	4	12	1	1970	3	Outagamie, Shawano, Waupaca, Wood
2	1	11	15	1960	2	Marathon
3	2	10	8	1992	1	Portage, Waushara
4	2	9	30	2002	2	Florence, Lincoln
5	1	9	28	1971	3	Langlade, Lincoln, Marathon, Marinette, Oconto
6	1	9	26	1951	4	Portage, Waupaca
7	1	9	24	1984	2	Marathon
8	1	9	20	1980	1	Shawano
9T	1	9	19	1999	0	Door
9T	2	9	19	1988	0	Marathon, Waushara
9T	1	9	19	1963	1	Forest
12	1	9	18	1950	3	Waupaca
13	1	9	16	1972	2	Forest, Marinette
14	1	9	14	1991	0	Shawano
15	1	9	13	2005	0	Brown

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE – SINGLE DAY OUTBREAKS (YEAR)

# TOR	MONTH	DATE	YEAR	E/EF	COUNTY OR COUNTIES
10	4	10	2011	3	Brown, Calumet, Florence, Forest, Langlade, Lincoln, Marathon, Outagamie, Waupaca, Waushara, Winnebago
7	6	4	2005	0	Marathon, Waushara
7	7	16	1997	2	Lincoln, Marathon, Waushara
6	8	6	2013	2	Brown, Calumet, Kewaunee, Manitowoc, Outagamie, Waupaca
6	8	18	2005	1	Brown, Manitowoc, Waupaca, Waushara, Winnebago
6	7	11	2004	0	Lincoln, Oneida
6	6	23	2004	2	Brown, Outagamie, Portage, Waupaca, Waushara
6	4	27	1984	4	Oneida, Vilas, Menominee, Shawano, Waupaca, Winnebago, Outagamie
6	6	13	1976	2	Langlade, Lincoln, Marathon, Oconto, Outagamie, Portage
6	4	22	1970	2	Brown, Door, Kewaunee
5	6	7	2007	4	Langlade, Marathon, Marinette, Oconto, Shawano, Wood
5	4	18	2002	1	Lincoln, Marathon, Oneida
5	7	18	1996	1	Calumet, Lincoln, Winnebago
4	7	9	2013	0	Langlade, Lincoln, Oconto, Portage
4	6	8	2003	0	Calumet, Winnebago, Wood
4	6	8	1993	0	Waushara, Winnebago
4	5	16	1992	2	Brown, Outagamie, Portage, Waupaca
4	4	21	1974	2	Marathon, Marinette, Shawano, Winnebago
4	6	26	1969	3	Lincoln, Oconto, Outagamie, Shawano, Vilas
3	7	6	2015	1	Oconto, Waupaca
3	7	29	2008	0	Marathon, Marinette, Wood
3	6	10	2005	0	Marathon, Waupaca, Winnebago
3	8	7	1996	2	Marathon
3	5	24	1989	1	Calumet, Manitowoc, Winnebago
3	8	1	1988	1	Oneida, Vilas
3	5	8	1988	2	Portage, Waushara, Winnebago
3	6	13	1981	2	Oneida, Vilas
3	6	14	1980	1	Oneida, Vilas
3	5	30	1980	1	Oconto, Outagamie, Shawano
3	7	12	1973	1	Door, Outagamie, Vilas
3	9	28	1971	3	Lincoln, Marathon, Marinette, Oconto
3	5	8	1964	2	Brown, Calumet, Marathon, Outagamie, Waupaca, Winnebago
3	9	3	1961	2	Lincoln, Marathon
3	5	28	1959	1	Brown, Winnebago
3	4	3	1956	2	Portage, Winnebago, Waushara

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE - TORNADO OUTBREAKS BY MONTH

LARGEST SINGLE DAY JANUARY TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTY OR COUNTIES
					NO TORNADOES REPORTED DURING THE MONTH

LARGEST SINGLE DAY FEBRUARY TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTY OR COUNTIES
					NO TORNADOES REPORTED DURING THE MONTH

LARGEST SINGLE DAY MARCH TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTY OR COUNTIES
1	3	29	1998	0	Lincoln
1	3	30	1982	1	Portage / Wood
1	3	11	1973	1	Calumet
1	3	31	1967	2	Wood

LARGEST SINGLE DAY APRIL TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
10	4	10	2011	3	Brown, Calumet, Florence, Forest, Langlade, Lincoln, Marathon, Outagamie, Waupaca, Waushara, Winnebago
6	4	27	1984	4	Oneida, Vilas, Menominee, Shawano, Waupaca, Winnebago, Outagamie
6	4	22	1970	2	Brown, Door, Kewaunee
5	4	18	2002	1	Lincoln, Marathon, Oneida
4	4	21	1974	2	Marathon, Marinette, Shawano, Winnebago
3	4	3	1956	2	Portage, Winnebago, Waushara

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE - TORNADO OUTBREAKS BY MONTH

LARGEST SINGLE DAY MAY TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
4	5	16	1992	2	Brown, Outagamie, Portage, Waupaca
3	5	24	1989	1	Calumet, Manitowoc, Winnebago
3	5	8	1988	2	Portage, Waushara, Winnebago
3	5	30	1980	1	Oconto, Outagamie, Shawano
3	5	8	1964	2	Brown, Calumet, Marathon, Outagamie, Waupaca, Winnebago
3	5	28	1959	1	Brown, Winnebago

LARGEST SINGLE DAY JUNE TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
7	6	4	2005	0	Marathon, Waushara
6	6	23	2004	2	Brown, Outagamie, Portage, Waupaca, Waushara
6	6	13	1976	2	Langlade, Lincoln, Marathon, Oconto, Outagamie, Portage
5	6	7	2007	4	Langlade, Marathon, Marinette, Oconto, Shawano, Wood
4	6	8	2003	0	Calumet, Winnebago, Wood
4	6	8	1993	0	Waushara, Winnebago
4	6	26	1969	3	Lincoln, Oconto, Outagamie, Shawano, Vilas
3	6	10	2005	0	Marathon, Waupaca, Winnebago
3	6	13	1981	2	Oneida, Vilas
3	6	14	1980	1	Oneida, Vilas

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE - TORNADO OUTBREAKS BY MONTH

LARGEST SINGLE DAY JULY TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
7	7	16	1997	2	Lincoln, Marathon, Waushara
6	7	11	2004	0	Lincoln, Oneida
5	7	18	1996	1	Calumet, Lincoln, Winnebago
4	7	9	2013	0	Langlade, Lincoln, Oconto, Portage
4	7	30	2002	0	Lincoln, Marathon
4	7	3	1983	2	Marathon, Shawano, Vilas, Wood
3	7	6	2015	1	Oconto, Shawano, Waupaca
3	7	29	2008	0	Marathon, Marinette, Wood
3	7	12	1973	1	Door, Outagamie, Vilas

LARGEST SINGLE DAY AUGUST TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
6	8	18	2005	1	Brown, Manitowoc, Waupaca, Waushara, Winnebago
3	8	23	2011	0	Calumet, Shawano, Wood
3	8	7	1996	2	Marathon
3	8	1	1988	1	Oneida, Vilas
2	8	23	1998	3	Door, Winnebago
2	8	27	1994	1	Marinette, Waushara
2	8	12	1985	2	Waushara, Wood
2	8	9	1979	2	Brown, Calumet
2	8	19	1968	4	Marathon, Marinette
2	8	16	1968	2	Brown, Outagamie

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE - TORNADO OUTBREAKS BY MONTH

LARGEST SINGLE DAY SEPTEMBER TORNADO OUTBREAKS

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
3	9	28	1971	3	Lincoln, Marathon, Marinette, Oconto
3	9	3	1961	2	Lincoln, Marathon
2	9	30	2002	2	Florence, Lincoln
2	9	2	2002	1	Marathon
2	9	19	1988	0	Marathon, Waushara

LARGEST SINGLE DAY OCTOBER TORNADO OUTBREAK

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
2	10	8	1992	1	Portage-Waushara
					**ONLY TORNADOES REPORTED DURING THE MONTH IN THE GRB CWA

LARGEST SINGLE DAY NOVEMBER TORNADO OUTBREAK

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
1	11	15	1960	2	Marathon
					**ONLY TORNADO REPORTED DURING THE MONTH IN GRB CWA

LARGEST SINGLE DAY DECEMBER TORNADO OUTBREAK

# TOR	MONTH	DATE	YEAR	E/EF	COUNTIES
4	12	1	1970	3	Outagamie, Shawano, Waupaca, Wood
					**ONLY TORNADO OUTBREAK REPORTED DURING THE MONTH

Note: F/EF scale indicates strongest tornado noted on the date of the event.

TORNADO REFERENCE GUIDE BY MONTH - JANUARY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES

No tornadoes reported during the month.

TORNADO REFERENCE GUIDE BY MONTH – FEBRUARY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES

No tornadoes reported during the month.

TORNADO REFERENCE GUIDE BY MONTH - MARCH

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	2	3	31	1967	2349	Marshfield	Wood
2	1	3	11	1973	1030	2 E Calumetville	Calumet
3	1	3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	Portage, Wood
4	0	3	29	1998	1928-1935	3 W - 3 N Tomahawk	Lincoln

Event 1: March 31, 1967

The F/EF-2 tornado touched down in Marshfield around 11:49 pm CST. The tornado travelled approximately two miles and had a maximum with of 35 yards. The tornado destroyed or damaged several buildings including a mobile home plant.

Event 2: March 11, 1973

An early season F/EF-1 struck Calumet County, 2 miles east of Calumetville around 10:30 am CST. The tornado was 50 yards wide and travelled two miles before dissipating.

Event 3: March 30, 1982

The tornado initially touched down in the township of Armenia in Juneau County where it destroyed a house and 3 nearby mobile homes. Two occupants of the house were injured. The F/EF-1 tornado then moved northeast to just southeast of Nekoosa in Wood County around 2:05 pm CST. The tornado traveled intermittently on a 28 mile path before dissipating 3 miles southwest of Stevens Point in Portage County around 2:40 pm CST.

Event 4: March 29, 1998

The F/EF-0 tornado touched down in 3 miles west of Tomahawk in Lincoln County at 7:28 pm CST. The tornado was 75 yards wide and travelled four and a half miles before dissipating 3 miles north of Tomahawk at 7:35 pm CST. The tornado damaged several sheds, garages and a pole building west of Tomahawk. The storm also downed many power poles, disrupting power to thousands of customers.

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	2	4	15	1954	1500	2 NE Neshkoro - Redgranite	Marquette, Waushara
2	2	4	3	1956	1250	3 S Bancroft - 2 NW Amherst	Portage
3	4	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara, Winnebago
4	2	4	6	1956	1345-1353	Ogdensburg - Symco	Waupaca
5	2	4	19	1957	1600-1615	3 W Wautoma - 2 NW West Bloomfield	Waushara
6	1	4	19	1957	1600	Coddington - Bancroft	Portage
7	1	4	24	1960	1600	7 SW Valders	Manitowoc
8	2	4	22	1970	2040	Ashwaubenon to Green Bay - north side	Brown
9	2	4	22	1970	2100	De Pere to Green Bay	Brown
10	2	4	22	1970	2100-2110	1 N Casco - Rio Creek	Door, Kewaunee
11	2	4	22	1970	2120-2130	7 SE Maplewood	Door
12	2	4	22	1970	2120	Algoma - 6 NE Algoma	Kewaunee
13	1	4	22	1970	2110	2 NE Poland - 4 SE Luxemburg	Brown, Kewaunee
14	0	4	22	1971	1730	4 SW Hilbert	Calumet
15	2	4	12	1974	1405	5 W Athens	Marathon
16	2	4	12	1974	1415	Wittenberg - Bowler	Shawano
17	4	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
18	2	4	21	1974	1525	4 NNW Crivitz	Marinette
19	2	4	4	1981	0035	4 W Kiel	Calumet
20	0	4	27	1984	0405	Saratoga	Wood
21	2	4	27	1984	1450	4 NW Antigo	Langlade
22	3	4	27	1984	1437-1507	Fawn Lake - Star Lake	Oneida, Vilas
23	3	4	27	1984	1455-1540	Union (Waupaca Co) - Legend Lake	Menominee, Shawano, Waupaca
24	4	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago, Outagamie
25	2	4	27	1984	1415	0.5 S Plover	Portage
26	1	4	20	1992	1600-1620	2 SW Arpin - Bakerville	Wood
27	0	4	24	1994	1525	3 S Luxemburg	Kewaunee
28	1	4	26	1994	1455-1505	1.5 N Conover - 3 SE Land O'Lakes	Vilas
29	0	4	25	1996	1755-1757	2 W Pensaukee	Oconto
30	0	4	23	2001	1326-1346	12 NW - 9 NW Sturgeon Bay (waterspout)	Door
31	0	4	18	2002	1549	2 W Bradley	Lincoln
32	0	4	18	2002	1557	6 SW Woodboro	Oneida
33	0	4	18	2002	1633	4 E Rhinelander	Oneida
34	1	4	18	2002	1813-1827	3 SE Stratford - 6 NW Mosinee	Marathon
35	0	4	18	2002	1832	6 SSW Wausau Airport	Marathon
36	3	4	10	2011	1708-1741	2 N Hamburg - 1 SW Bloomville	Marathon, Lincoln
37	1	4	10	2011	1735-1742	2 NW Coloma – 4 ESE Hancock	Adams, Waushara
38	1	4	10	2011	1750-1758	5 S Parrish	Langlade
39	1	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	Waushara, Waupaca, Outagamie
40	2	4	10	2011	1830-1846	3 SE Argonne – 6 SE Long Lake	Forest, Florence
41	1	4	10	2011	1853-1904	0.3 NW Poy Sippi – 2.3 WSW Winchester	Waushara, Winnebago
42	1	4	10	2011	1903-1908	4.2 WNW – 3.2 N Armstrong Creek	Forest
43	2	4	10	2011	1943-1946	1.2 SW Kaukauna – 0.3 S Little Chute	Outagamie
44	1	4	10	2011	1953-1955	1.2 NNE Askeaton – 1.4 S Greenleaf	Brown
45	1	4	10	2011	1959-2001	1.6 NW Quinney – 1.5 SSE Stockbridge	Calumet

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46							

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 1: April 15, 1954

The F/EF-2 tornado struck around 3 pm CST two miles northeast of Neshkoro in Waushara County. The tornado travelled approximately six miles and reached a maximum width of 30 yards before dissipating at Redgranite. Widespread damage was reported at Redgranite, Lohrville and Spring Lake. Numerous small buildings and trees were damaged. The greatest single property damage occurred at the St. Marks Catholic Church in Redgranite. The frame structure was badly shaken by the storm, resulting in jammed doors and dislodged staircases and shattered walls. In the Spring Lake-Lohrville area, the greatest damage was in the town of Marion where a large barn was leveled. The wind scattered the tin roof for hundreds of yards in several directions.

Event 2: April 3, 1956

A strong spring storm killed 43 people nationwide, including eight in Wisconsin on this date. The F/EF-2 tornado developed 3 miles south of Bancroft in Portage County around 12:50 pm CST. The tornado travelled 18.2 miles to two miles northwest of Amherst before dissipating. The tornado reached a maximum width of 100 yards. Two fatalities were reported in Portage County.

Event 3: April 3, 1956

Unseasonably warm air ahead of a strong cold front triggered showers and thunderstorms across the state. The F/EF-4 tornado developed near Berlin in Green Lake County around 1:45 pm CST and traveled 11.5 miles across rural areas of southeast Waushara County near the town of Aurora; then dissipated around 1:53 pm CST two miles west of Omro in Winnebago County. The tornado was 440 yards wide. Berlin was hit the hardest with six killed and 50 injured. Severe storms killed eight people across the state on this day.

Event 4: April 6, 1956

The F/EF-2 tornado developed near Ogdensburg in Waupaca County around 1:45 pm CST. The tornado travelled 7 miles to Symco before dissipating around 1:53 pm CST. The tornado reached a maximum width of 100 yards.

Event 5: April 19, 1957

The F/EF-2 tornado developed 3 miles west of Wautoma in Waushara County around 4 pm CST. The tornado travelled nearly 23 miles and reached a maximum width of 50 yards before dissipating two miles northwest of West Bloomfield around 4:15 pm CST. No fatalities were reported at a farm house that was leveled in rural Wild Rose. The farm of Reuben Anderson, Route 2 Wild Rose was the principal destruction point in Waushara County. The tornado destroyed a 34 by 56 foot barn, a 10 by 30 foot wood silo, a chicken coop, a milk house and wood shed.

Event 6: April 19, 1957

The F/EF-1 tornado touched down in Coddington, 12 miles southwest of Bancroft, in Portage County around 4 pm CST. The tornado travelled about 12 miles and reached a maximum width of less than 50 yards before dissipating in Bancroft.

Event 7: April 24, 1960

The F/EF-1 tornado touched down 7 miles southwest of Valders in Manitowoc County around 4 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 8: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 8:40 pm CST in Ashwaubenon and moved northeast about four miles to the north side of Green Bay. Maximum width of the tornado was 800 yards. Much of the damage was concentrated in the Lambeau Field area. Among the most seriously damaged businesses were the Midway Motor Lodge motel and the nearby Forum Supper Club as well as property at Nanco Corporation. There were reports of damage to tunnels connecting the Brown County Arena to an annex. Several cars in the area parking lot were damaged by flying debris. Roofs of a number of houses were damaged and garages and barns were reported destroyed. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 9: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST in De Pere and travelled northeast for 7 miles through Allouez and then into the southeast side of Green Bay. The maximum width of the tornado was 800 yards. A church steeple was toppled in De Pere. Damage was reported at a lumber yard and canning company at Baird and Main Streets in Green Bay. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 10: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST one mile north of Casco in Kewaunee County. The tornado moved northeast for 11 miles before dissipating near Rio Creek in southern Door County around 9:10 pm CST. The tornado reached a maximum width of 500 yards. Fifteen barns near Casco and Rio Creek were destroyed. Two persons were injured when their house trailer was upended south of Forestville. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 11: April 22, 1970

Several tornadoes were reported across north central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST seven miles southeast of Maplewood in Door County. This may be the same tornado that tore through eastern Kewaunee County from Algoma to 6 miles northeast of Algoma. The tornado travelled about four miles and reached 500 yards in width in Door County before dissipating.

Event 12: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST from Algoma to 6 miles northeast of Algoma in Kewaunee County. The tornado travelled about five miles and reached a maximum width of 500 yards. Extensive damage was reported near Algoma northeast along the Lake Michigan shoreline. Among the buildings destroyed were a warehouse and a church steeple. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 13: April 22, 1970

The F/EF-2 tornado developed 2 miles northeast of Poland in extreme eastern Brown County around 9:10 pm CST. The tornado was 500 yards wide and travelled just over 7 miles to near Luxemburg in Kewaunee County before dissipating. Several farms were damaged and leveled the Kewaunee County Fair Grandstand at Luxemburg.

Event 14: April 22, 1971

The F/EF-0 tornado touched down briefly 4 miles southwest of Hilbert in Calumet County around 5:30 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile.

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 15: April 12, 1974

The F/EF-2 tornado briefly touched down 5 miles west of Athens in Marathon County around 2:05 pm CST. The tornado travelled 2 miles and reached a maximum width of 150 yards before dissipating. One barn was destroyed and wires down. Two horses in the field were rolled over by the tornado.

Event 16: April 12, 1974

The F/EF-2 tornado touched down in Wittenberg in Shawano County around 2:15 pm CST. The tornado traveled nearly 11 miles and reached a maximum width of 150 yards before dissipating near Bowler. Several farms between Wittenberg and Bowler were destroyed. The Wendler farm in the town of Morris and the Watters and Hintz farms in the town of Seneca sustained severe damage. One injury was reported when Mr. Hintz was injured when he was struck by a flying board.

Event 17: April 21, 1974

The F/EF-4 tornado first touched down 5 miles south of Ripon in Fond Du Lac County at about 2:40 pm CST. The tornado destroyed or severely damaged buildings on about 30 farms before approaching southwest Oshkosh at 2:58 pm CST. The tornado lifted 10 minutes later over northwest Oshkosh. The tornado travelled 26 miles and reached a maximum width of 200 yards. At Oshkosh, the tornado damaged 400 homes and business with 33 of the houses completely destroyed. Damage was estimated at 4.2 million dollars. In Oshkosh, thirty-five people were treated for injuries with only ten people injured seriously enough to be hospitalized.

Event 18: April 21, 1974

The F/EF-2 tornado touched down 4 miles north northwest of Crivitz in Marinette County around 3:25 pm CST. The tornado was 200 yards wide and travelled four miles before dissipating.

Event 19: April 4, 1981

A brief F/EF-2 tornado touched down around 12:35 am CST 4 miles west of Kiel in Calumet County. The tornado was only 25 yards wide and travelled about a quarter of a mile. Six trailers in a line in the Country Aire Trailer Court were destroyed. One trailer was lifted into the air and deposited upside down.

Event 20 April 27, 1984:

The F/EF-0 tornado briefly touched down in the township of Saratoga in Wood County around 4:05 am CST. The tornado was 50 yards wide and travelled a mile before dissipating. Numerous trees were downed and some residential damage occurred. Hail the size of three quarters of an inch also fell during the storm.

Event 21: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched 4 miles northwest of Antigo in Langlade County around 2:50 pm CST. The tornado was 20 yards wide and travelled 7.5 miles across Langlade County. One home and three barns were demolished and twenty-five head of dairy cows were crushed to death in one barn.

Event 2: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado traveled 29 miles and reached a maximum width of 880 yards.

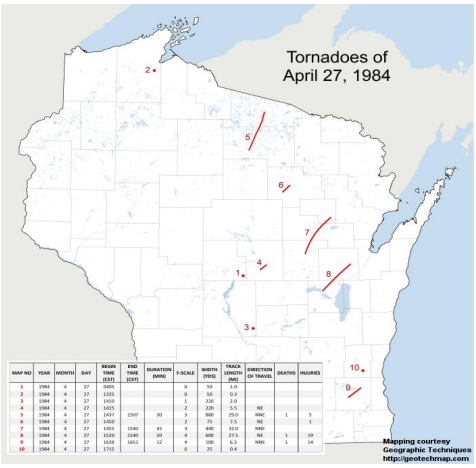
TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 23: April 27, 1984

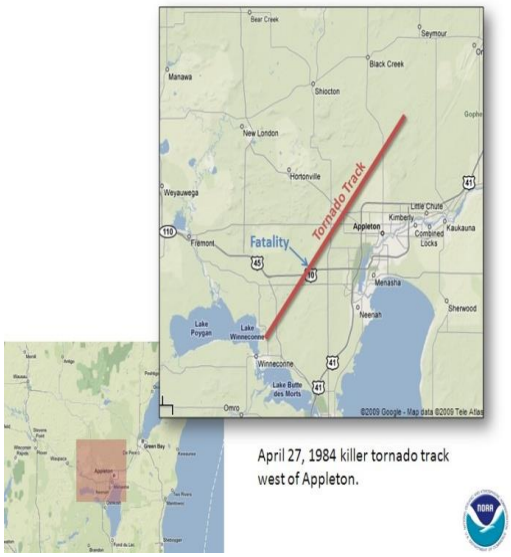
Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

Event 24: April 27, 1984



MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0605			0	50	1.0			
2	1984	4	27	1325			0	50	0.3			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	800	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	19
9	1984	4	27	1639	1651	12	4	100	6.5	NNE	1	14
10	1984	4	27	1715			0	25	0.4			

The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. This outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950. Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.



April 27, 1984 killer tornado track west of Appleton.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado traveled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph). In addition to the Fox Valley tornado, five other tornadoes were reported across central and northeast Wisconsin that day. An F3 tornado, with winds estimated near 140 mph, tore through Oneida and Vilas counties, killing one person south of St. Germain and injuring eight others. Another F3 tornado was reported across Waupaca, Shawano, and Menominee counties causing considerable damage. Other tornados were observed over Wood, Portage, and Langlade counties.

Event 25: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched down a half miles south of Plover in Portage County around 2:15 pm CST. The tornado was 220 yards wide and travelled five and a half miles before dissipating. At least nine homes and numerous sheds and barns were destroyed. A bun feeder wagon was thrown 150 yards which snapped a sixty-five foot cement silo. Ping pong size hail accompanied the storm.

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 26: April 20, 1992:

The F/EF-1 tornado formed 2 miles southwest of Arpin in Wood County around 4 pm CST. The tornado was 25 yards wide and travelled 9.5 miles before dissipating a half mile south of Bethel or near Bakerville around 4:20 pm CST. Damage included: a shed was knocked down near Arpin, a mobile home was picked up and twisted around near Bethel and some roof damage was reported at Bakerville

Event 27: April 24, 1994

The F/EF-0 tornado touched down 3 miles south of Luxemburg in Kewaunee County around 3:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. No damage was reported with this storm.

Event 28: April 26, 1994

The F/EF-1 tornado touched down a mile and a half north of Conover in Vilas County around 2:55 pm CST. The tornado was 150 yards wide and travelled four and a half miles before dissipating 3 miles southeast of Land O' Lakes around 3:05 pm CST. The tornado damaged a house just north of Conover and leveled hundreds of trees along its four and a half mile path into the Nicolet National Forest.

Event 29: April 25, 1996

A cold-core F/EF-0 tornado briefly touched down 2 miles west of Pensaukee in Oconto County around 5:55 pm CST. The tornado was 40 yards wide and travelled a tenth of a mile before dissipating at 5:57 pm CST. Several 6 to 8 inches diameter birch trees were knocked down.

Event 30: April 23, 2001

A waterspout F/EF-0 developed 6 miles west southwest of Fairland in Door County around 1:26 pm CST. The waterspout moved north along the shoreline before it dissipated 9 miles northwest of Sturgeon Bay.

Event 31: April 18, 2002

A brief F/EF-0 tornado touched down 2 miles west of Bradley in Lincoln County at 3:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 32: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles southwest of Woodboro in Oneida County at 3:57 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 33: April 18, 2002

A brief F/EF-0 tornado touched down 4 miles east of Rhinelander in Oneida County at 4:33 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 34: April 18, 2002

The F/EF-1 tornado formed 3 miles southeast of Stratford in Marathon County around 6:13 pm CST. The tornado was 100 yards wide and travelled 14 miles before dissipating 6 miles northwest of Mosinee around 6:27 pm CST. The tornado downed hundreds of trees, while numerous barns and farm sheds were destroyed by a combination of the tornado and straight line winds. Plows had to be used to clear trees from some of the roads.

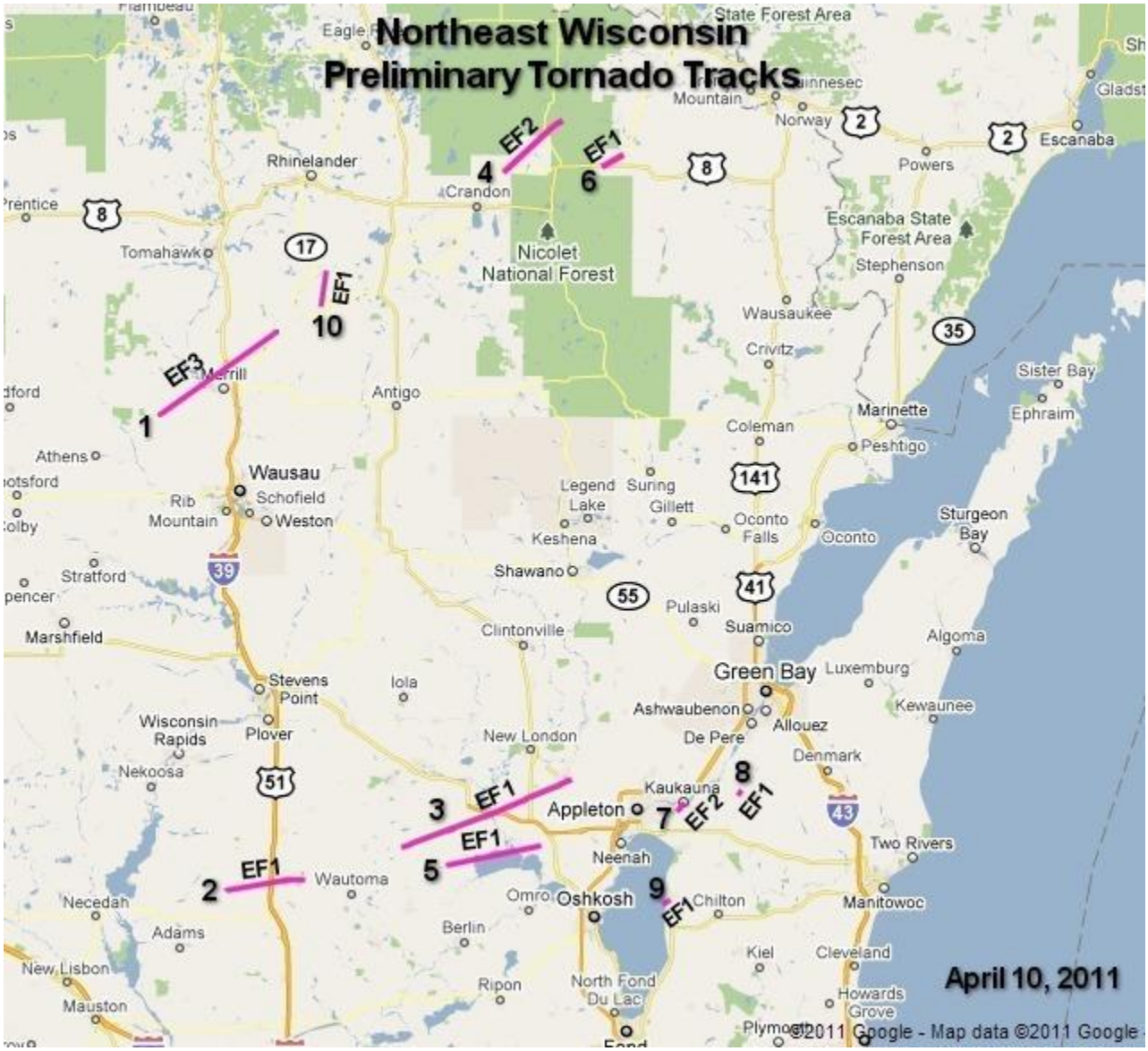
TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 35: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles south southwest of the Wausau Airport in Marathon County around 6:32 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Record Tornado Outbreak April 10, 2011



TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 36: April 10, 2011

The F/EF-3 tornado developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards.

Event 37: April 10, 2011

The F/EF-1 tornado moved out of Adams County and entered Waushara County at 5:35 pm CST about 1.8 miles northwest of Coloma. The worst damage occurred just inside the Waushara County line. A mobile home roof was torn off and roof damage was noted to several homes. The average width of the tornado was about 80 yards.

Event 38: April 10, 2011

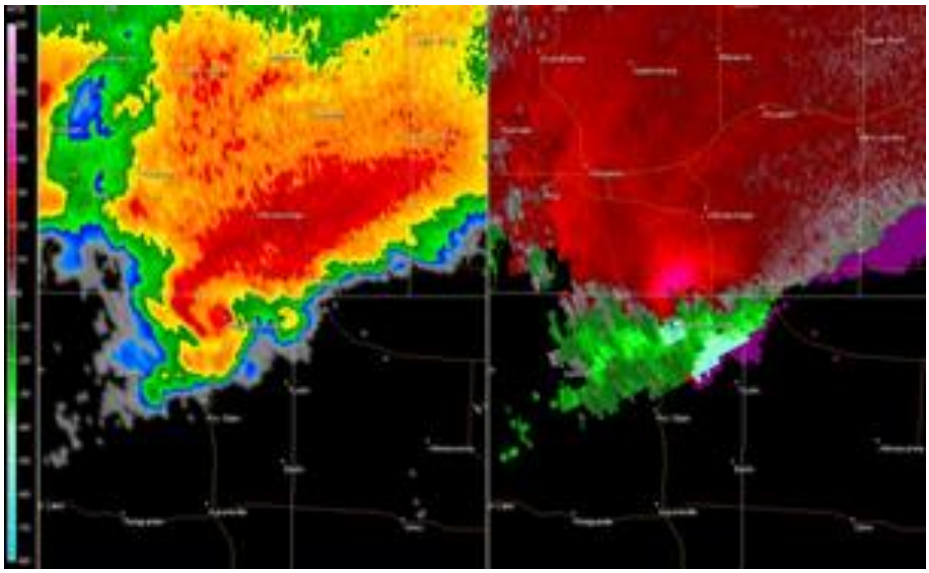
The F/EF-1 tornado formed about 5 miles south of Parrish around 5:50 pm CST and moved just east of north for a little over five miles. The tornado affected about 1600 acres of hardwood and softwood trees. It was estimated that over one million trees were snapped, uprooted or suffered serious damage. The loss to timber alone is estimated at over one million dollars. One cabin was destroyed by fallen trees. The tornado was seen by a storm chaser at 5:55 pm CST. The average width of the tornado was 250 yards.

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 39: April 10, 2011

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed with the debris strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST. The tornado, which was not on the ground the entire time, damaged a couple of farm buildings just south of Hortonville before it dissipated. One of the buildings lost part of its roof. The average width was 100 yards.



Note: Radar image from NWS Green Bay

Event 40: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.

TORNADO REFERENCE GUIDE BY MONTH - APRIL

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 41: April 10, 2011

The F/EF-1 tornado developed 0.3 miles northwest of Poy Sippi, then moved east-northeast over the north shore of Lake Poygan. The tornado then entered Winnebago County at 7:04 pm CST. In Waushara County, the tornado damaged a house and destroyed a barn in the Poy Sippi area. Another barn was flattened near the north shore of Lake Poygan. Many pine trees were uprooted or snapped along the path of the storm. The average path width in Waushara County was 100 yards. In Winnebago County, the tornado moved along the north shore of Lake Poygan, causing most of the damage near Boom Bay on the northeast shore of Lake Poygan. Two homes were heavily damaged as portions of their roofs were partially ripped off. Several other houses sustained lesser damage in this area. In addition, two small mobile homes were rolled on their side and many trees were uprooted or snapped. The tornado dissipated about 2 miles west of Winchester, although damage occurred east and southeast of this location from straight-line thunderstorm winds. The average path width in Winnebago County was 100 yards.

Event 42: April 10, 2011

The F/EF-1 tornado (2nd tornado on this day) formed in Forest County about four miles west of Armstrong Creek at 7:03 pm CST. The tornado snapped and uprooted trees and damaged two houses. One of the houses sustained significant roof damage as the tornado moved across the area. The average width of the tornado was 125 yards.

Event 43: April 10, 2011

The F/EF-2 tornado touched down in the southwest side of Kaukauna near County Road CE at 7:43 pm CST. The tornado cut through the center of a subdivision as it moved north-northeast to near the Fox River before lifting off the ground. Seven homes were destroyed, 24 homes and four businesses sustained major damage and 160 other homes sustained minor damage. Several houses lost large sections of their roofs in the hardest hit area of the city. The average path width was 125 yards.

Event 44: April 10, 2011

A brief F/EF-1 tornado touched down about a mile and a half south of Greenleaf. The tornado damaged the tops of two silos and then ripped the roof off a barn. Average width of the tornado was 75 yards.

Event 45: April 10, 2011

A brief F/EF-1 tornado moved off Lake Winnebago and onshore south of Stockbridge just before 8 pm CST. The waterspout was seen as it moved onshore, damaging two homes. A three season room on one of the houses was ripped off the structure. The tornado moved northeast and tore a section off the roof of a large outbuilding. The top s of trees were snapped in two areas along the path of the tornado. The average width of the tornado was 75 yards.

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	1	5	3	1955	1800	Irma	Lincoln
2	1	5	28	1955	1505	3 W Clintonville	Waupaca
3	2	5	17	1958	1540	3 W - 2NE Wausaukee	Marinette
4	1	5	4	1959	1030	Wausau	Marathon
5	1	5	4	1959	1145	Deerbrook	Langlade
6	2	5	6	1959	0320	Symco - SE Clintonville	Outagamie, Waupaca
7	2	5	6	1959	1330	3 NE Shiocton	Outagamie
8	2	5	10	1959	2050-2055	Green Bay	Brown
9	1	5	28	1959	1515	6 N - 9 NE Oshkosh	Winnebago
10	1	5	28	1959	1538	1 SW Greenleaf	Brown
11	0	5	28	1959	1530	6 SW De Pere	Brown
12	1	5	21	1960	1730	15 W Oshkosh	Winnebago
13	1	5	4	1964	1800-1810	10 SW St. Germain - St. Germain	Oneida
14	2	5	7	1964	1800	Wisconsin Rapids	Wood
15	2	5	8	1964	1700	5 N Iola - 1 W Clintonville	Waupaca
16	2	5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	Marathon
17	2	5	8	1964	1830-1906	Winneconne - Wrightstown	Brown, Calumet, Winnebago, Outagamie
18	0	5	30	1964	1328	Green Bay - Bellevue	Brown
19	0	5	21	1970	2010	Green Bay - north side	Brown
20	1	5	18	1971	1640-1704	Adams-Friendship - Hancock	Waushara
21	1	5	9	1973	1550	2 N Reedsville	Manitowoc
22	1	5	8	1978	1650-1700	1.5 SW - 2.5 SE Luxemburg	Kewaunee
23	1	5	30	1980	1430	4 S Shawano	Shawano
24	1	5	30	1980	1520	Oconto	Oconto
25	1	5	30	1980	1605-1614	Black Creek	Outagamie
26	2	5	6	1982	1430	2 S Stephensville - 1 S Black Creek	Outagamie
27	2	5	8	1988	1710	4.5 SW Hadler - Rib Falls	Marathon
28	1	5	8	1988	1706-1712	2 SE Wautoma - 1 S Mount Morris	Waushara
29	0	5	8	1988	1712	3 W Keene	Portage
30	1	5	24	1989	2010-2015	3 S Oshkosh	Winnebago
31	1	5	24	1989	2105	4 WNW Chilton	Calumet
32	0	5	24	1989	2115	1 E Cooperstown	Manitowoc
33	1	5	16	1992	1430	5 N Junction City	Portage
34	2	5	16	1992	1810-1830	4 W Keene - 5 SE Amherst	Portage
35	1	5	16	1992	1830	2.5 NE Northland	Waupaca
36	1	5	16	1992	1920-1930	Kaukauna - 2 SW Wrightstown	Outagamie-Brown
37	2	5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	Forest
38	0	5	31	1998	0020-0021	4 WSW Mosinee	Marathon
39	1	5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	Calumet
40	0	5	5	1999	1630-1631	1 WNW Tomahawk	Lincoln
41	0	5	12	2000	1043	5 WNW St. Nazianz	Manitowoc
42	1	5	1	2001	2055-2100	0.4 NNE - NE Minocqua	Oneida
43	0	5	6	2002	1630-1640	5 NW - 2.5 N Winneconne	Winnebago
44	0	5	6	2002	1702	8 N Oshkosh - Wittman Field	Winnebago
45	0	5	23	2004	0547	2.7 E Reedsville	Manitowoc

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	0	5	6	2005	1524-1525	7 ESE - 7.8 ESE Oshkosh Wittman Field	Winnebago
47	0	5	6	2005	1525-1529	5 WSW - 3.7 SW Brothertown	Calumet
48	0	5	25	2008	2000-2001	3 ENE Knowlton	Marathon
49	1	5	4	2010	1810-1812	2.7 SE Zittau - 2.7 W Winchester	Winnebago
50	0	5	4	2010	1813-1817	2.2 SW Winchester - 0.8 NNW Larsen	Winnebago
51	0	5	22	2011	1805	5 NE Algoma	Kewaunee
52	1	5	22	2011	1703-1720	5.5 SSE Cranmoor - 4.8 SE Arnott	Wood, Portage
53	0	5	24	2012	1801-1807	3.7 SSE - 4.8 ENE Marathon	Marathon
54	0	5	17	2015	1431-1440	1.6 WSW Morgan – 3.4 NE Morgan	Shawano

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 1: May 3, 1955

The F/EF-1 tornado touched down in Irma, approximately 9 miles north of Merrill, in Lincoln County around 6 p m CST. The tornado travelled 7 miles and had a maximum width less than 50 yards. Lincoln County Sheriff Alfred Giese stated in the Rhinelander Daily News that a tornado ripped through several farms and wooded lot country about 9 miles north of Merrill. Giese stated that three barns were blown down and that communications between Merrill and the State Traffic Patrol Headquarters in Tomahawk was disrupted for a while. Two people were trapped in the wreckage and were freed by sheriff officers and highway crews. No homes were damaged.

Event 2: May 28, 1955

The F/EF-1 tornado touched down 3 miles west of Clintonville in Waupaca County around 3:05 pm CST. The tornado travelled 2.7 miles and reached a maximum width of 75 yards before dissipating. The tornado ripped through a farm injuring two persons, and knocking down trees and utility poles. Robert Malaueg, 13, and Leroy Ashauer, 23, were hurt and taken to Clintonville Community Hospital.

Event 3: May 17, 1958

The F/EF-2 tornado developed 3 miles west of Wausaukee in Marinette County around 3:40 pm CST and travelled northeast for 4.7 miles before dissipating 2 miles northeast of Wausaukee. The tornado reached a maximum width of 80 yards.

Event 4: May 4, 1959

The F/EF-1 tornado was reported to touch down near Wausau in Marathon County around 10:30 am CST. The tornado was 200 yards wide and travelled a mile before dissipating near Wausau.

Event 5: May 4, 1959

The F/EF-1 tornado struck Deerbrook in Langlade County around 11:45 am CST. The tornado was 100 yards wide and was on the ground for a mile.

Event 6: May 6, 1959

The F/EF-2 tornado developed near Symco in Waupaca County and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 7: May 6, 1959

The F/EF-2 tornado touched down 3 miles northeast of Shiocton and travelled nearly 2 miles before dissipating around 1:30 pm CST. The tornado reached a maximum width of 200 yards. The tornado flattened a barn on the farm of Mrs. Matilda Gehring. Numerous trees were damaged in a nearby wooded lot while a shed on a nearby farm sustained damage.

Event 8: May 10, 1959

The F/EF-2 tornado touched down in Ashwaubenon in Brown County around 8:50 pm CST and travelled northeast for approximately four miles into Preble and the city of Green Bay before dissipating at 8:55 pm CST. The maximum diameter of the tornado was less than 50 yards wide. One of the most severely damaged buildings in the Sunday night tornado was a year old home moved nearly off its foundation in Ashwaubenon. Five members of the Julius Alberts family were inside the house when the tornado hit, escaped injury. The garage disappeared from the neighborhood and the car inside was twisted around and dumped in a field behind the house. Six homes were demolished and at least 50 others suffered heavy damage. Three injuries were noted with the tornado.

Event 9: May 28, 1959

The F/EF-1 tornado struck 6 miles north of Oshkosh in Winnebago County around 3:15 pm CST. The tornado travelled nine miles before dissipating 9 miles northeast of Oshkosh.

Event 10: May 28, 1959

The F/EF-1 tornado was spotted one mile southwest of Greenleaf in Brown County around 3:38 pm CST.

Event 11: May 28, 1959

The F/EF-0 tornado touched down 6 miles southwest of De Pere in Brown County around 3:30 pm CST.

Event 12: May 21, 1960

The F/EF-1 tornado touched down fifteen miles west of Oshkosh in Winnebago County around 5:30 pm CST.

Event 13: May 4, 1964

The F/EF-1 tornado was first reported 10 miles southwest of St. Germain in Vilas County around 6 pm CST. The tornado travelled just over 7 miles before dissipating in St. Germain at 6:10 pm CST. The tornado had a maximum width of 125 yards. The local storm report indicated the tornado touched down twice and crossed over the Big St. Germain drawing water to a height of 200 feet. There was considerable damage to resorts and woods in the path of the tornado.

Event 14: May 7, 1964

The F/EF-2 tornado touched down in the city of Wisconsin Rapids in Wood County around 6 pm CST and travelled a half mile. The maximum width of the tornado was 100 yards. The tornado tore through the Suburban Heights trailer court. There were fourteen injuries, none of them serious. Ten of the trailer homes were ripped from their foundation and tossed up into the air. The body of one was torn off and the frame was left lying upside down 100 yards from its original base. Many of the trailers were occupied by the Wisconsin Rapids Twins ballplayers and their wives. Some damage to roofs and television antennas was reported within the city limits.

Event 15: May 8, 1964

Several tornadoes were noted across the state on this date. In north central and northeast Wisconsin, the F/EF-2 tornado touched down from about five miles north of Iola in Waupaca County around 5 pm CST. The tornado travelled a little over 3 miles to one mile west of Clintonville. The tornado had a maximum width of 200 yards. At least five barns were reported down in the Clintonville area. Another tornado was noted across Marathon County from seven miles east southeast of Knowlton to five miles west of Elderon around 5:50 pm CST.

Event 16: May 8, 1964

The F/EF-2 tornado touched down 7 miles east southeast of Knowlton in Marathon County around 5:50 pm CST. The tornado travelled about twelve miles to 5 miles west of Elderon. The tornado had a maximum width of five hundred yards.

Event 17: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 18: May 30, 1964

The F/EF-0 tornado momentarily touched down in a field northeast of Bellevue in Brown County around 1:28 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 19: May 21, 1970:

An airplane pilot reported the F/EF-0 tornado just northeast of Green Bay along the shores of the bay of Green Bay in Brown County around 8:10 pm CST. The tornado became a waterspout about four miles northeast of Green Bay. The tornado/waterspout was less than 50 yards wide and was on the ground for about two miles

Event 20: May 18, 1971

The F/EF-1 tornado was first sighted northeast of Adams and Friendship in Adams County around 4:40 pm CST. The tornado travelled 15 miles as it moved across Highway 21 and then to Hancock in western Waushara County before dissipating around 5:04 pm CST. The tornado reached a maximum width of 100 yards. After crossing Highway 21, the tornado destroyed two house trailers injuring five people and smashed a barn. In Hancock, a large metal warehouse was severely damaged with sheet metal scattered a half mile downwind.

Event 21: May 9, 1973

The F/EF-1 was reported 2 miles north of Reedsville in Manitowoc County around 3:50 pm CST. The tornado was 50 yards wide and travelled about two miles before dissipating. Several outbuildings were destroyed on the John Zimmerman farm on Highway 32. Damage was also reported on the Sullivan and Fenlon farms.

Event 22: May 8, 1978

The F/EF-1 tornado developed a mile and a half southwest of Luxemburg in Kewaunee County around 4:50 pm CST, and then moved to two and a half miles southeast of Luxemburg before dissipating around 5 pm CST. Two buildings were destroyed a mile and a half west of Luxemburg on Highway 54. A large pole building was destroyed two and a half miles southeast of Luxemburg.

Event 23: May 30, 1980

The F/EF-1 tornado touched down at Highway187 four miles south of Shawano in Shawano County around 2:30 pm CST. The tornado was 50 yards wide and travelled 2 miles before dissipating. A house trailer was destroyed and scattered debris two miles to the northeast.

Event 24: May 30, 1980

The F/EF-1 tornado touched down at Highway 22 and Highway J near Oconto in Oconto County around 3:20 pm CST. The tornado was 50 yards wide and travelled one mile. Several buildings and cars were damaged as well as twisting off several trees.

Event 25: May 30, 1980

The F/EF-1 tornado touched down about 2 miles outside of Black Creek in Outagamie County around 4:05 pm CST. The tornado travelled east around 4 miles before dissipating around 4:14 pm CST two miles east of Black Creek. An intermittent four mile path 50 yards wide resulted in damage to several garages in Black Creek.

Event 26: May 6, 1982

The F/EF-2 tornado cut a 9 mile path from 2 miles south of Stephensville to one mile south of Black Creek in Outagamie County around 2:30 pm CST. The tornado reached a maximum width of 100 yards. Many small rural structures were destroyed. Some damage occurred to 12 large farm buildings and equipment inside. Two additional large barns were destroyed. Most of the damage occurred in Ellington Township.

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 27: May 8, 1988

The F/EF-2 tornado developed four and a half miles southwest of Hadler in Marathon County around 5:10 pm CST. The tornado travelled 13 miles and reached a maximum width of 250 yards before dissipating in Rib Falls. Two people were injured in the town of Emmet when their mobile home trailer was rolled upside down. In all, three mobile homes, six large barns, three machine sheds and silos were destroyed with numerous buildings damaged. Thirty-nine acres of ginseng racks on sixteen farms were knocked off their posts causing $450,000 in damage. The total cost of the tornado in Marathon County was over one million dollars in damage.

Event 28: May 8, 1988

In Waushara County, the F/EF-1 tornado travelled 5 miles from one mile south of Mount Morris to 3 miles northeast of Wild Rose between 5:06 and 5:12 pm CST. The tornado was 100 yards wide. Damage to structures and trees were reported along Silver Lake.

Event 29: May 8, 1988

The F/EF-0 tornado touched down in rural areas 3 miles west of Keene in Portage County around 5:12 pm CST. The tornado was 25 yards wide and travelled a mile before dissipating.

Event 30: May 24, 1989

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County between 8:10 and 8:15 pm CST. The tornado was 50 yards wide and travelled 1.2 miles before dissipating.

Event 31: May 24, 1989

The F/EF-1 tornado touched down 4 miles west northwest of Chilton in Calumet County around 9:05 pm CST. The tornado was 50 yards wide and was on the ground for a quarter of a mile.

Event 32: May 24, 1989

A brief tornado (F/EF-0) touched down one mile east of Cooperstown in Manitowoc County at 9:15 pm CST. The tornado was 50 yards wide and travelled two tenths of a mile before dissipating.

Event 33: May 16, 1992

The F/EF-1 tornado touched down 5 miles north of Junction City in Portage County around 2:30 pm CST. The tornado was 400 yards wide and travelled 1.3 miles before dissipating. The tornado damaged three homes, two sheds, and a mobile home roof 5 miles north of Junction City.

Event 34: May 16, 1992

The F/EF-2 tornado touched down 4 miles west of Keene in Portage County around 6:10 pm CST. The tornado was 400 yards wide and travelled eleven miles to 5 miles southeast of Amherst before dissipating around 6:30 pm CST. The tornado tossed a mobile home in the middle of a road in Plover Township and damaged fourteen homes, two farms, and a large amount of irrigation equipment.

Event 35: May 16: 1992

In Waupaca County, the F/EF-1 tornado touched down two and a half miles northeast of Northland around 6:30 pm CST. The tornado was 100 yards wide and was on the ground for a mile and a half. Many trees and three homes were damaged by the tornado.

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 36: May 16: 1992

The F/EF-1 tornado formed near Lamers and Clancy Roads near Kaukauna in Outagamie County around 7:20 pm CST. The tornado was 100 yards wide and travelled several miles into extreme southwest Brown County where the it dissipated 2 miles southwest of Wrightstown around 7:30 pm CST. Numerous trees were down, some of which landed on houses.

Event 37: May 30, 1994

The F/EF-2 tornado touched down 2 miles southwest of Crandon in Forest County around 850 pm CST. The tornado travelled 12 miles and reached a maximum width of 800 yards before dissipating one mile north of Laona around 9:16 pm CST. Three mobile homes and 25 homes were destroyed while 600 acres of timber was leveled. Three people were injured in a mobile that was destroyed by the tornado. The thunderstorms also produced tennis ball size hail as the storms passed through Rhinelander.

Event 38: May 31, 1998

A brief F/EF-0 tornado touched down 4 miles west southwest of Mosinee in Marathon County at 12:20 am CST. The tornado was 50 yards wide and was on the ground for two tenths of a mile before it dissipated 3.8 miles west southwest of Mosinee at 12:21 am CST.

Event 39: May 31, 1998

The tornado developed a half mile north of Stockbridge in Calumet County around 1:20 am CST. The F/EF-1 tornado was 75 yards wide and travelled 1.4 miles before dissipating 2 miles northeast of Stockbridge around 1:24 am CST. The tornado destroyed a garage and silo, damaged two barns and overturned farm vehicles. A 2-by-4 was driven through the exterior wall of a house, narrowly missing one of the sleeping children.

Event 40: May 5, 1999

The F/EF-0 tornado touched down one mile west northwest of Tomahawk in Lincoln County at 4:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile before dissipating at 4:31 pm CST.

Event 41: May 12, 2000:

A brief (F/EF-0) tornado touched down 5 miles west northwest of St. Nazianz in Manitowoc County around 10:43 am CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No damage was reported with the tornado. The thunderstorms that produced the tornado were some of the most devastating thunderstorms to move across northeast Wisconsin. The combination of 100 mph straight line winds and 2 inch hail produced very serious damage in St. Nazianz. Thirty people were injured by the storm in Manitowoc County with 100 homes destroyed by the wind and hail.

Event 42: May 1, 2001

The tornado (F/EF-1) developed four tenths of a mile north of Minocqua in Oneida County around 8:55 pm CST. The tornado moved about a quarter of a mile before lifting of the ground. The tornado touched down again 1.8 miles east northeast of Minocqua and stayed on the ground for about 1.2 miles before dissipating. The tornado was 125 yards wide and was on the ground for about a mile and a half. Many pine trees were snapped 15 to 30 feet above the ground. A five unit storage building was completely removed from its slab and a number of homes were damaged by fallen trees.

Event 43: May 6, 2002

The F/EF-0 tornado touched down 5 miles northwest of Winneconne in Winnebago County around 4:30 pm CST. The tornado was 50 yards wide and traveled four miles on the ground before dissipating 2.5 miles north of Winneconne around 4:40 pm CST. The tornado moved across Lake Winneconne.

TORNADO REFERENCE GUIDE BY MONTH - MAY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 44: May 6, 2002

A brief F/EF-0 tornado touched down 8 miles north of Wittman Field in Oshkosh in Winnebago County at 5:02 pm CST. The tornado was 20 yards wide and was only on the ground for a tenth of a mile. No damage was noted with the tornado.

Event 45: May 23, 2004

The F/EF-0 tornado touched down 2.7 miles east of Reedsville in Manitowoc County at 5:47 am CST. The tornado was 75 yards wide and was on the ground for a tenth of a mile. The tornado damaged shingles and siding on a house and snapped trees and large branches.

Event 46: May 6, 2005

The F/EF-0 waterspout touched down 7 miles east southeast of Oshkosh Wittman Field in Winnebago County at 3:24 pm CST. The waterspout was 50 yards wide and was on the ground for eight tenths of a mile before dissipating 7.8 miles east southeast of Oshkosh Wittman Field at 3:25 pm CST.

Event 47: May 6, 2005

The F/EF-0 waterspout touched down 5 miles west southwest of Brothertown in Calumet County at 3:25 pm CST. The water spout was 50 yards wide and was on the water for over a mile and a half before dissipating 3.7 miles southwest of Brothertown at 3:29 pm CST.

Event 48: May 25, 2008

The F/EF-0 tornado touched down 3 miles east northeast of Knowlton in Marathon County at 8 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile before dissipating at 8:01 pm CST. Several apple trees were damaged in a narrow path. A pine tree fell on a shed as well. The tornado was on the ground for less than 30 seconds

Event 49: May 4, 2010

The F/EF-0 tornado touched down 2.2 miles south southwest of Winchester in Winnebago County at 6:13 pm CST. The tornado was 100 yards wide and travelled 3.4 miles before dissipating 0.8 miles north northwest of Larsen at 6:17 pm CST. The tornado damaged several structures. It destroyed a shed, swirling 2 by 4's in the air. The 2 by 4's struck a house, damaging the roof. The tornado threw a trailer about 200 yards into a field and ripped siding off a garage. A small camper was knocked over.

Event 50: May 4, 2010

The F/EF-0 tornado touched down 2.5 miles west southwest of Veedum in Wood County at 4:18 pm CST. The tornado travelled a quarter of a mile and was 50 yards wide before it dissipated 2.2 miles west southwest of Veedum. The brief tornado was reported by the public and confirmed by local emergency management about 5 miles west of Pittsville. A dozen trees were knocked down and several large tree limbs fell onto a house. Wind speed estimated at 80 mph.

Event 51: May 22, 2011

A waterspout was observed over Lake Michigan about 5 miles northeast of Algoma.

Event 52: May 22, 2011

The F/EF-1 tornado moved out of Juneau County at 5:03 pm CST and moved across southern Wood County. The storm hit a campground on the east shore of the Wisconsin River about three miles south of Nekoosa. Over 100 pine trees were snapped and uprooted on the campground, some two feet in diameter. Several camper vehicles were damaged by fallen trees. The tornado was seen by campground visitors just before 5:15 pm CST. The tornado continued east-northeast and snapped or uprooted hundreds of additional trees south of Wisconsin Rapids. The storm damaged at least six homes and several other buildings about six miles south-southeast of Wisconsin Rapids. One of the houses lost the entire roof of a garage. A woman was in the garage at the time. She sustained injuries when the garage fell on the truck that she was taking shelter in. This area experienced a high-end F/EF-1 damage with winds at least 95 to 105 mph. The tornado entered Portage County around 5:20 pm CST. The tornado moved across mainly farmland. The twister continued to snap trees and overturn agricultural irrigation systems. About six miles south of Plover, a nearly half-mile long row of power poles were bent over. The tornado crossed Interstate 39 at Coddington Road two miles west of Keene. The tornado grew to nearly 700 yards wide as it passed just north of Keene and heavily damaged a farmstead. A silo was damaged and a barn was flattened. Several outbuildings were also damaged or destroyed. Along the path, at least two dozen irrigation systems were overturned and damaged resulting in over one million dollars in losses. Many hundreds of trees were snapped or uprooted. This area experienced high end F/EF-1 damage with winds of 100 to 110 mph. The tornado dissipated about 9 miles southeast of Plover at 5:46 pm CST. The average width was 300 yards in Portage County.

Event 53: May 24, 2012

The F/EF-0 tornado formed 3.7 miles south southeast of Marathon at 601 pm CST and rapidly move northeast before dissipating 4.8 miles east northeast of Marathon at 6:07 pm. About 100 trees sustained large broken branches or were snapped by the tornado. No structures were damaged. The average path width was 50 yards.

Event 54: May 17, 2015

The F/EF-0 tornado touched down at 2:31 pm CST just over a mile and a half west-southwest of Morgan in Shawano County. The tornado produced intermittent damage along a nearly five mile long path, dissipating at 2:40 pm CST just over three miles northeast of Morgan. At least a dozen trees along the path sustained damaged and a barn lost several shingles. The tornado had a maximum width of 75 yards.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	4	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	2	6	25	1950	2100	3 W Colby - 3 NE Abbotsford	Marathon
3	1	6	20	1953	1800	Three Lakes	Oneida
4	2	6	20	1954	230-240	Rothschild to 6 NE Mosinee	Marathon
5	2	6	20	1954	0400	Brothertown	Calumet
6	1	6	14	1957	1730	Florence	Florence
7	3	6	4	1958	1930-2006	6 SE Chippewa Falls to 2 NW Athens	Marathon
8	2	6	30	1958	1730	1 NW Gleason	Lincoln
9	1	6	10	1959	1320	De Pere	Brown
10	1	6	23	1962	1630-1635	2 W Champion	Brown
11	0	6	23	1962	1900	15 E Stevens Point	Portage
12	1	6	9	1964	1455	Belle Plaine	Shawano
13	2	6	9	1964	1500	Pound	Marinette
14	2	6	4	1966	1900	Gillett - 2 NE Oconto Falls	Oconto
15	2	6	4	1966	1900	Suring	Oconto
16	2	6	30	1967	2349-2359	Chilton - 7 E Chilton	Calumet, Manitowoc
17	2	6	30	1968	0400	3 NW Cavour	Forest
18	1	6	30	1968	0445	3 S Pembine	Marinette
19	3	6	26	1969	1115-1130	Black Creek - 8 W Sobieski	Outagamie, Shawano, Oconto
20	1	6	26	1969	1630	2 W Manitowish Waters - 3 SW Presque Is.	Vilas
21	2	6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	Vilas
22	1	6	26	1969	1700	Skanawank - Pelican Lake	Lincoln
23	0	6	17	1970	1835	3 S Wisconsin Rapids	Wood
24	1	6	6	1971	2315	5 SW Oshkosh	Winnebago
25	1	6	13	1971	1630	8 NW Oshkosh	Winnebago
26	1	6	18	1971	1345	5 W Marinette	Marinette
27	1	6	3	1973	1815	2 NE Amberg	Marinette
28	1	6	18	1973	1100	2 W Athens	Marathon
29	1	6	9	1974	1445	Bancroft	Portage
30	1	6	14	1974	1610	5 NW Gillett	Oconto
31	2	6	12	1976	2030	1 W Alban	Portage
32	1	6	12	1976	2100	Amherst	Portage
33	1	6	13	1976	1840-1920	4 Wisc. Rapids - 3 NE Stevens Point	Portage
34	2	6	13	1976	1900	Plover	Portage
35	1	6	13	1976	2030-2010	2 W Hogarty - Elton	Langlade, Marathon, Lincoln
36	1	6	13	1976	2000	5 E Seymour	Outagamie
37	1	6	13	1976	2015	Oconto Falls	Oconto
38	1	6	13	1976	2045	9 E Merrill to 11 NW Antigo	Langlade, Lincoln
39	2	6	7	1978	1515	2 NW Francis Creek	Manitowoc
40	2	6	16	1979	0930	Oconto Falls - 2 NE Lena	Oconto
41	1	6	16	1979	1530-1545	2 N - 2 NE Irma	Lincoln
42	1	6	20	1979	1345	3 S Oshkosh	Winnebago
43	1	6	20	1979	1430	Goodman	Marinette
44	2	6	7	1980	0020	Valders	Manitowoc
45	1	6	14	1980	1230	5 NW Manawa - Manawa	Waupaca

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	1	6	14	1980	1325	1 E Rhinelander - Lake Thompson	Oneida
47	0	6	14	1980	1422	5 N Rhinelander	Oneida
48	1	6	13	1981	2040	1 N Hazelhurst	Oneida
49	1	6	13	1981	2045	Sayner - 3 NE Sayner	Vilas
50	2	6	13	1981	2100	Three Lakes	Oneida
51	1	6	26	1984	1655	13 N Wausau - Texas	Marathon
52	1	6	26	1984	1900	Caroline	Shawano
53	3	6	8	1985	1815-1852	Park Falls - 3 SE Monico	Price, Oneida
54	2	6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	Door
55	1	6	12	1990	1835	2 W Stratford	Marathon
56	1	6	14	1991	1155	8 WNW Merrill	Lincoln
57	2	6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	Oneida
58	0	6	17	1992	1255	2 NE Denmark	Brown
59	0	6	8	1993	1838	2.5 S Spring Lake - 2 W Auroraville	Waushara
60	0	6	8	1993	1915	0.5 E Dakota - 2 S Redgranite	Waushara
61	0	6	8	1993	1935-1945	5 SE Redgranite - 3 SE Auroraville	Waushara
62	0	6	8	1993	1735	1 E Pickett	Winnebago
63	0	6	29	1995	1105	10 SW Kewaunee	Kewaunee
64	0	6	11	1996	1608-1609	5 NW Chilton	Calumet
65	0	6	16	1998	1500	3 WNW Coloma	Waushara
66	0	6	8	2003	1140	4 W Oshkosh - Wittman Field	Winnebago
67	0	6	8	2003	1220-1226	5 E - 5.5 ESE Oshkosh Wittman Field (waterspout)	Winnebago
68	0	6	8	2003	1242	4.3 W - 4.1 WSW Brothertown (waterspout)	Calumet
69	0	6	8	2003	1259-1302	4 S - 4.1 S Marshfield Airport	Wood
70	1	6	23	2004	1846-1848	3 NNW Almond - 3 NNE Almond	Portage
71	0	6	23	2004	1847	Whiting	Portage
72	1	6	23	2004	1853-1856	3 SE Blaine - 5 ESE Blaine	Portage
73	2	6	23	2004	1856-1906	9 W Waupaca to 2 SW Lind Center	Waupaca
74	1	6	23	2004	2000-2008	Little Chute - Kaukauna	Outagamie
75	0	6	23	2004	2027	Green Bay - northwest	Brown
76	0	6	4	2005	1354	1 E - 1.1 ENE Auroraville	Waushara
77	0	6	4	2005	1405	2 NW Borth	Waushara
78	0	6	4	2005	1527	4 W - 4.5 WNW Edgar	Marathon
79	0	6	4	2005	1539-1542	1 W - 1.5 NW Athens	Marathon
80	0	6	4	2005	1706	4 S Athens	Marathon
81	0	6	4	2005	1720	3 W Marathon	Marathon
82	0	6	4	2005	1730	5 E Kewaunee (waterspout)	Kewaunee
83	0	6	4	2005	1918	7 S Hogarty	Marathon
84	0	6	9	2005	1740-1750	5 SE - 5 E Oshkosh	Winnebago
85	0	6	9	2005	1814	4 NW Stockbridge	Calumet
86	0	6	10	2005	1303	4 W Mosinee	Marathon
87	0	6	10	2005	1505	1 N Winneconne	Winnebago
88	0	6	10	2005	1510	2 W Clintonville	Waupaca
89	0	6	10	2005	1910	4 ESE Oshkosh	Winnebago

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
90	0	6	10	2005	1922	3 E Oshkosh	Winnebago
91	0	6	10	2005	1948	3 E Oshkosh	Winnebago
92	0	6	13	2005	1449-1450	4.1 NNE - 4 NNE Black Creek	Outagamie
93	0	6	18	2006	1643	3 NW Sister Bay	Door
94	0	6	24	2006	1614-1615	4 W Sherwood	Calumet
95	0	6	3	2007	1811	1.6 ESE Shawano	Shawano
96	2	6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	Marathon
97	0	6	7	2007	1526	2.2 W - 2.1 W Wisconsin Rapids Airport	Wood
98	3	6	7	2007	1531-1618	2 ENE Mattoon - 9.5 ENE Lakewood	Shawano, Langlade, Oconto
99	1	6	7	2007	1637-1640	0.5 W -2.5 ENE Cedarville	Marinette
100	1	6	7	2007	1716-1720	3.5 W Harmony to 1.2 N Harmony	Marinette
101	0	6	20	2007	1606	6 NW Ellison Bay (waterspout)	Door
102	0	6	15	2015	1409-1410	1.5 NNW Glenmore – 1.4 NNW Glenmore	Brown

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 1: June 25, 1950

The F/EF-4 tornado touched down one mile west of Woodboro in Oneida County around 9 pm CST and traveled 13.1 miles to five miles northeast of Rhinelander. The tornado reached a maximum width of 880 yards. Two deaths were reported in Oneida County.

Event 2: June 25, 1950

The F/EF-2 tornado touched down 3 miles west of Colby in Marathon County and travelled to three miles northeast of Abbotsford around 9 pm CST. There was no additional information on this tornado. The tornado travelled approximately 3 miles with a maximum width of 20 yards.

Event 3: June 20, 1953

A brief F/EF-1 tornado touched down in Three Lakes in Oneida County around 6 pm CST. The tornado was 100 yards wide and travelled two miles before dissipating. Trees and power lines were downed along with some damage to summer homes.

Event 4: June 20, 1954

The F/EF-2 tornado developed around 2:30 am CST in Rothschild in Marathon County. The tornado travelled approximately 6.3 miles and dissipated six miles northeast of Mosinee around 2:40 am CST. The maximum width of the tornado was 70 yards. Another tornado was reported in Brothertown in Calumet County around 4 am CST.

Event 5: June 20, 1954

The F/EF-2 tornado developed around 4 am CST in Brothertown in Calumet County. The tornado travelled one mile and had a maximum width of less than 50 yards.

Event 6: June 14, 1957

The F/EF-1 tornado touched down at Florence in Florence County around 5:30 pm CST. The tornado travelled approximately 8 miles and reached a maximum width of 100 yards before dissipating.

Event 7: June 4, 1958

According to several sources, it appears that there was a long tracked F/EF-3 tornado that developed 6 miles southeast of Chippewa Falls in Chippewa County around 7:30 pm CST. The tornado then moved to the east northeast for just over 59 miles before dissipating 2 miles northwest of Athens in Marathon County around 8:06 pm CST. The tornado reached a maximum width of 880 yards. Newspaper accounts indicated there were three separate tornadoes during this event. The tornado or tornadoes killed 28 people across western Wisconsin. Four people died in Chippewa Falls and near Menominie while two deaths were reported Knapp and Boyd in western Wisconsin.

Event 8: June 30, 1958

A brief F/EF-2 tornado touched down around 5:30 pm CST one mile northwest of Gleason in Lincoln County. The tornado travelled approximately 2 miles and reached a maximum width of 50 yards. According to the Rhinelander Daily News, the United States Weather Bureau stated a Northwest Orient Airlines plane and an Antigo radar station both reported radar echoes with the dangling hooks characteristic of tornado clouds.

Event 9: June 10, 1959

The F/EF-1 tornado touched down near De Pere in Brown County around 1:20 pm CST. The tornado traveled about a mile and was less than twenty yards wide.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 10: June 23, 1962

The F/EF-1 tornado touched down 2 miles west of Champion in eastern Brown County around 4:30 pm CST. According to the local storm report for June of 1962, the tornado became or originated as a waterspout near Point Sauble as the storm was picking up water at times. The tornado/waterspout had a maximum width of less than 50 yards and travelled 3 miles before dissipating at 4:35 pm CST.

Event 11: June 23, 1962

The F/EF-0 tornado touched down 15 miles east of Stevens Point in Portage County around 7 pm CST.

Event 12: June 9, 1964

The F/EF-1 tornado was sighted in Belle Plaine in Shawano County around 2:55 pm CST. The Adams Beach area was hit the hardest according to newspaper reports.

Event 13: June 9, 1964

The F/EF-2 tornado touched down near Pound in Marinette County around 3 pm CST. The tornado travelled approximately 3 miles and had a maximum width of 50 yards.

Event 14: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. The tornado was 50 yards wide. Another F/EF-2 tornado was reported near Suring around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 15: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado was reported near Suring around 7 pm CST. The tornado was 50 yards wide and travelled for 2 miles before dissipating. Another F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 16: June 30, 1967

The F/EF-2 tornado struck Chilton in Calumet County around 11:49 pm CST. The tornado then travelled to 7 miles east of Chilton before dissipating around 11:59 pm CST. The maximum width of the tornado was 100 yards. The city of Chilton took the brunt of the damage. At least five buildings were destroyed beyond repair. A trailer home tumbled end over end across a lot and a good share of trees were torn up.

Event 17: June 30, 1968

The F/EF-2 tornado touched down 3 miles northwest of Cavour in Forest County around 4 am CST. The tornado travelled east northeast approximately one mile and had a maximum width of 200 yards. Several buildings were damaged on the Aschenbrenner Farm near Cavour.

Event 18: June 30, 1968

The F/EF-1 tornado touched down on the Zern property 3 miles south of Pembine in Marinette County around 4:45 am CST. The tornado was 100 yards wide and travelled on the ground for a half mile. Trees and a garage were destroyed by the tornado.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 19: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado traveled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 20: June 26, 1969

According to the local storm report, the F/EF-1 tornado skipped northeast through the forests of Price, southeast Iron and western Vilas Counties. The tornado struck Vilas County from 2 miles west of Manitowish Waters around 4:30 pm CST and moved to three miles southwest of Presque Isle. Most of the damage occurred around Manitowish Waters.

Event 21: June 26, 1969

The F/EF-2 tornado formed near Lac Du Flambeau in Vilas County around 5 pm CST and skipped northeast for nearly 29 miles. The tornado dissipated along the Michigan border 9 miles northwest of Land O' Lakes. Maximum width of the tornado was 35 yards. Resort areas from Fence Lake northeastward across Big Crooked and High Lakes suffered damage.

Event 22: June 26, 1969

The F/EF-1 tornado travelled 22 miles across Clark, Taylor and Lincoln Counties. The tornado did major damage from the Withee area in northern Clark County around 4:10 pm CST. Two persons were injured and about ten farms sustained damage. Major damage from the tornado was reported at the Taylor County Airport near Medford around 4:30 pm CST. Seven planes and one hangar suffered severe damage. The tornado entered western Lincoln County and travelled to near Pelican Lake around 5 pm CST before dissipating. Five more farms suffered serious damage in northeast Lincoln County. Tree and wire damage termed "worst ever" by utilities in the northern resort areas.

Event 23: June 17, 1970

The F/EF-0 touched down briefly 3 miles south of Wisconsin Rapids in Wood County around 6:35 pm CST. The tornado was 100 yards wide and only travelled a tenth of a mile. According to the monthly storm report, the tornado touched down in open country.

Event 24: June 6, 1971

The F/EF-1 tornado was reported 5 miles southwest of Oshkosh in Winnebago County around 11:15 pm CST. The tornado was 50 yards wide and travelled nearly 4 miles before it dissipated. The tornado demolished one barn and damaged several others on highway 26 about five miles southwest of Oshkosh.

Event 25: June 13, 1971

The public reported the tornado 8 miles northwest of Oshkosh in Winnebago County around 4:30 pm CST. The F/EF-1 tornado was 50 yards wide and only travelled a quarter of a mile. Many trees were down in small grove eight miles northwest of Oshkosh.

Event 26: June 18, 1971

The F/EF-1 tornado struck about 5 miles west of Marinette in Marinette County, near Highway 64 and Right O Way Road around 1:45 pm CST. The tornado was 100 yards wide and travelled just over four miles before it dissipated. Many trees were uprooted and several resort and farm buildings were damaged.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 27: June 3, 1973

The F/EF-1 tornado first touched down just north of Amberg in Marinette County around 6:15 pm CST. The tornado was 100 yards wide and moved four and a half miles across Marinette County before dissipating. The tornado upended several house trailers and destroyed several wooden structures at the Sparkling Springs Campground just north of Amberg. Several acres of trees were leveled at the campsite and northeastward to Assembly of God Church in Beecher Township.

Event 28: June 18, 1973

The F/EF-1 tornado touched down on the Brunke Farm 2 miles west of Athens in Marathon County around 11 am CST. The tornado was 200 yards wide and travelled east for two miles before dissipating.

Event 29: June 9, 1974

The tornado formed in Adams County and then the F/EF-1 tornado moved into southwest Portage County where it touched down briefly on the Sawyer Farm Route 1, Bancroft around 2:45 pm CST. The tornado was 30 yards wide and travelled two and a half miles. The tornado damaged a barn, a chicken coop and a porch on house. Only minor tree damage was noted.

Event 30: June 14, 1974

On the afternoon of June 14th, the F/EF-1 tornado touched down 5 miles northwest of Gillett in Oconto County around 4:10 pm CST. The tornado was 30 yards wide and travelled only a quarter of a mile. The tornado downed trees and power lines and threw a chopper wagon thirty yards.

Event 31: June 12, 1976

The F/EF-2 tornado touched down a mile west of Alban in Portage County around 8:30 pm CST. The tornado only traveled about a quarter of a mile and reached a maximum width of fifty yards. The tornado leveled a mobile home a mile west of Alban.

Event 32: June 12, 1976

The F/EF-1 tornado touched down near Amherst in Portage County around 9 pm CST. The tornado was 50 yards wide and travelled around a quarter of a mile. The Amherst High School roof was ripped off.

Event 33: June 13, 1976

The F/EF-1 tornado formed 4 miles west of Wisconsin Rapids in Wood County around 6:40 pm CST. The tornado continued to move east northeast to three miles northeast of Stevens Point near the intersection of Highway 51 and Business 51 before dissipating around 7:20 pm CST three miles northeast of Stevens Point. The tornado traveled nineteen miles and reached a maximum width of 100 yards. Many trees were flattened. In Stevens Point, scattered damage was reported just north of the city and a roof was blown off an apartment complex. Several other buildings also suffered damage. Two people in the apartment complex were injured from fallen debris.

Event 34: June 13, 1976

The F/EF-2 tornado was observed by the police chief of Plover in Portage County around 7 pm CST. The tornado touched down at the intersection of Highway 54 and County B. The tornado was only on the ground for about a quarter of a mile and had a maximum width of about fifty yards.

Event 35: June 13, 1976

The F/EF-1 tornado hit first about two miles west of Hogarty in Marathon County around 8 pm CST. The tornado skipped along and moved east northeast into extreme southwest Langlade County near Elmhurst and then continued to near Elton before dissipating at 8:10 pm. The tornado was 50 yards wide and travelled 21.3 miles. Some sheds were destroyed while windows of some buildings were damaged. Tree limbs and power lines were downed by the tornado.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 36: June 13, 1976

The tornado (F/EF-1) developed near county highway H and Highway 54 about five miles east of Seymour in Outagamie County around 8 pm CST. The tornado was 50 yards wide and travelled a half mile. Three barns were destroyed.

Event 37: June 13, 1976

The F/EF-1 tornado developed just west of Oconto Falls in Oconto County around 8:15 pm CST. The tornado was 50 yards wide and travelled less than a quarter of a mile. The damage from the tornado included: a barn was destroyed, a farm house was damaged, trees and power lines were down and a good portion of an orchard was destroyed.

Event 38: June 13, 1976

The tornado first reached the ground near Highway 64 in extreme southeast Lincoln County around 8:45 pm CST. The tornado then moved into western Langlade County about 3 miles north of Highway 64. The tornado skipped along to near county Highway I about 11 miles northwest of Antigo where it was last reported. The tornado was 50 yards wide and travelled nearly eleven miles. The only report of damage was some downed trees.

Event 39: June 7, 1978

The F/EF-2 tornado touched down briefly 2 miles northwest of Francis Creek in Manitowoc County around 3:15 pm CST. The path length and maximum width of the tornado were not documented.

Event 40: June 16, 1979

The F/EF-2 tornado developed near Oconto Falls in Oconto County around 9:30 am CST. The tornado travelled just over 15 miles and reached a maximum width of 100 yards before dissipating 2 miles northeast of Lena. At least 17 frame and mobile homes along with numerous barns were damaged or destroyed. Heavy rains and large hail accompanied the tornado destroying crops along the thunderstorm path.

Event 41: June 16, 1979

The F/EF-1 tornado developed 2 miles north of Irma in Lincoln County around 3:30 pm CST. The tornado moved to 2 miles northeast of Irma before dissipating at 3:45 pm CST.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 42: June 20, 1979

The F/EF-1 tornado touched down 3 miles south of Oshkosh in Winnebago County around 1:45 pm CST. The tornado on this date followed almost the same path as another more destructive twister that hit the city in April 1974. The tornado destroyed two mobile homes and severely damaged five others. Four people were hospitalized due to the injuries they suffered from the tornado.

Event 43: June 20, 1979

Goodman in Marinette County was hit by the F/EF-1 tornado around 2:30 pm CST. The tornado tore the roof off Louisiana Pacific Corps Seaway Division. Clarence Richards, personnel manager said 100 to 125 people were working inside the building when the tornado struck. Company officials said some of the workers were trapped when the roof collapsed. Only one injury was reported. There was no documentation on path length or width of the tornado.

Event 44: June 7, 1980

A brief F/EF-2 tornado touched down in Valders in Manitowoc County around 12:20 am CST. The tornado was less than 50 yards wide and was on the ground for less than a quarter of a mile. The brief touchdown resulted in the destruction of a large modern barn and heavy farm equipment. Field crops were beaten down in the vicinity of the storm.

Event 45: June 14, 1980

The tornado (F/EF-1) developed about 5 miles northwest of Manawa at Highway 161 near County Highway E in Waupaca County around 12:30 pm CST. The tornado crossed Highway 161 and then turned eastward and dissipated near Manawa. The tornado was 50 yards wide and travelled five miles before dissipating. Several residents in the area took several spectacular photographs of the twister.

Event 46: June 14, 1980

A small tornado (F/EF-1) formed at Highway C one mile east of Rhinelander in Oneida County at 1:25 pm CST. The tornado was 50 yards wide and travelled eastward for a mile and a half before the tornado dissipated over Lake Thompson. A falling tree injured one person seriously and two other injuries were noted in a trailer court. One house and three trailers and several rural buildings suffered damage.

Event 47: June 14, 1980

The F/EF-0 tornado was reported 5 miles north of Rhinelander by the Oneida County sheriff's department at 2:22 pm CST. The brief tornado touched down in a rural area. There was no documentation on path length or width of the tornado.

Event 48: June 13, 1981

The F/EF-1 tornado touched down at the Timber Ridge Country Club on Route 51 one mile north of Hazelhurst in Oneida County around 8:40 pm. There was no documentation on path length or width of the tornado. The tornado destroyed about one thousand trees.

Event 49: June 13, 1981

The F/EF-1 tornado touched down at County Highway N about a half mile north Sayner. The tornado moved east for three miles through the dense forest and cross the intersection of Highway N and Highway G then dissipated. The tornado damaged electric lines, telephone poles and trees. The tornado was fifty yards wide.

Event 50: June 13, 1981

There is very little information available on this F/EF-2 tornado that struck Three Lakes in Oneida County around 9 pm. Path length and width were not available.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 51: June 26, 1984

The F/EF-1 tornado touched 13 miles north of Wausau in Marathon County around 4:55 pm CST. The tornado was 100 yards wide and skipped eastward for 8 miles before dissipating in the town of Texas. The tornado damaged four homes and three farm buildings. It also destroyed a few sheds and uprooted trees.

Event 52: June 26, 1984

The F/EF-1 tornado touched down on the west side of Caroline in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled 4 miles before dissipating east of Caroline. On the west side of Caroline, the tornado flattened sheds and knocking over several large trees and gravestones in a cemetery. A church roof was ripped off on the east side of Caroline. The entire town was without power for three hours.

Event 53: June 8, 1985

A severe thunderstorm spawned a killer F/EF-3 tornado and dropped large hail as it rolled through Price and Oneida Counties, causing widespread property, crop and timber damage. The tornado skipped from Park Falls to about 15 miles southeast of Rhinelander. The tornado first touched down one mile west of Park Falls around 6:15 pm CST and moved through the southern portion of the city. In Park Falls, 125 buildings were damaged with 12 houses and businesses were heavily damaged or destroyed. 26 people received mostly minor injuries in Park Falls. The tornado continued southeast, cutting an eighteen mile and 1.5 mile wide swath through eastern Price County and into Minocqua in Oneida County where the tornado dissipated around 6:52 pm CST. Two people were killed and sixteen injured at Swamsauger Lake and Cedar Falls resort in the Willow Reservoir area in Oneida County. A man apparently drowned when the tornado lifted him and his house and deposited it into Swamsauger Lake. A woman was killed when a tree crashed through a vehicle in which she was seeking refuge. The tornado continued to the southwest portion of Rhinelander and then dissipated southeast of Monico. A total of 47 residences were heavily damaged or destroyed while another 43 more received some damage in Oneida County. 9,900 acres of timber and cranberry bogs were lost in Oneida County.

Event 54: June 8, 1985

The F/EF-2 tornado touched down around 8 pm CST near Sand Bay in Door County, causing some building damage. The tornado skipped east 5 miles across portions of Sturgeon Bay. The tornado was 150 yards wide. Garages, sheds and ten barns were leveled or blown away. Yachts were blown off cradles and hundreds of trees were downed. Property damage was estimated at $1.8 million dollars. Hail up to five inches in diameter covered the ground to a depth of six inches just northeast of Sturgeon Bay. The storm caused an estimated $1.5 million dollars in crop damage.

Event 55: June 12, 1990

The F/EF-1 tornado hit a farm 2 miles west of Stratford in Marathon County around 6:35 pm CST. The tornado was 25 yards wide and was only on the ground for a tenth of a mile. According to newspaper reports, there was damage to some farm structures.

Event 56: June 14, 1991

The tornado touched down 8 miles west northwest of Merrill in Lincoln County around 11:55 am CST. The F/EF-1 tornado was 50 yards wide and was on the ground for a mile. The tornado destroyed several trees, a barn and damaged a roof and porch of a house.

Event 57: June 27, 1991

The F/EF-2 tornado touched down 12 miles west-southwest of Minocqua in Oneida County around 6:20 pm CST. The tornado cut a 6 mile swath from near Pine Lake to Franklin Lake to Marion Lake before dissipating around 6:30 pm CST. The tornado was 400 yards wide. Thirteen homes and one car were damaged along its path with damage estimated at $350,000 dollars. In addition, 1,600 acres of industrial forest valued at $240,000 were also damaged.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 58: June 17, 1992

The F/EF-0 tornado briefly touched down in an open field 2 miles northeast of Denmark in Brown County around 12:55 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile.

Event 59: June 8, 1993

The F/EF-0 small tornado briefly touched down in an open filed one mile east of Pickett in Winnebago County around 5:35 pm CST. The tornado was 25 yards wide and travelled a tenth of a mile.

Event 60: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed a half mile east of Dakota around 7:15 pm CST. The tornado was 35 yards wide and travelled 12 miles before dissipating around 7:35 pm CST two miles south of Redgranite. Only minor damage was noted.

Event 61: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado touched down 5 miles southeast of Redgranite around 7:35 pm CST. The tornado was 25 yards wide and travelled 6 miles before dissipating at 7:45 pm three miles southeast of Auroraville. Only minor damage was noted.

Event 62: June 8, 1993

The F/EF-0 small tornado briefly touched down in an open filed one mile east of Pickett in Winnebago County around 5:35 pm CST. The tornado was 25 yards wide and travelled a tenth of a mile.

Event 63: June 29, 1995

The F/EF-0 tornado touched down 10 miles southwest of Kewaunee in Kewaunee County around 11:05 am CST. The tornado was 10 yards wide and travelled a tenth of a mile. The weak tornado touched down only for a few seconds in southern Kewaunee County. Minimal crop damage was reported since this brief tornado occurred in open rural country. The tornado appeared to form on the Lake Michigan lake breeze.

Event 64: June 11, 1996

The F/EF-0 tornado briefly touched down 5 miles northwest of Chilton in Calumet County near the intersection of County Trunk BB and Killsnake Road around 4:08 pm CST. The tornado was 30 yards wide and was on the ground for a tenth of a mile before dissipating around 4:09 pm CST. The tornado threw a pile of lumber 30 feet in the air, tore shingles off of a shed and broke a window.

Event 65: June 16, 1998

The F/EF-0 was designated a landspout in the monthly storm report. The tornado touched down 3 miles west northwest of Coloma in Waushara County at 3 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was reported.

Event 66: June 8, 2003

A brief F/EF-0 tornado touched down 4 miles west of Oshkosh in Winnebago County at 11:40 am CST. The tornado was 15 yards wide and travelled a tenth of a mile before dissipating.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 67: June 8, 2003

A waterspout (F/EF-0) was photographed about 5 miles east of Oshkosh Wittman Field in Winnebago County at 12:20 pm CST. The waterspout was 40 yards wide and travelled a half mile before dissipating 5.5 miles east southeast of Oshkosh Wittman Field. The waterspout was observed by numerous participants of a fishing tournament that was taking place on the lake.

Event 68: June 8, 2003

A waterspout (F/EF-0) was reported 4.3 miles west of Brothertown in Calumet County at 12:42 pm CST. The waterspout was 40 yards wide and travelled four tenths of a mile before dissipating 4.1 miles west southwest of Brothertown at 12:46 pm CST.

Event 69: June 8, 2003

The F/EF-0 tornado touched down 4 miles south of the Marshfield Municipal Airport in Marshfield in Wood County at 12:59 pm CST. The tornado was 50 yards wide and travelled a tenth of a mile before dissipating 4.1 miles south of the Marshfield Municipal Airport at 1:02 pm CST. The tornado tore siding from a garage, broke windows, destroyed a play house and dog house, and blew two 50 pound barrels 200 yards away.

Event 70: June 23, 2004

The F/EF-1 tornado touched down 3 miles west northwest of Almond around 6:46 pm CST. The tornado was 25 yards wide and was on the ground for a mile and a half before dissipating 3 miles north northeast of Almond around 6:48 pm CST. The tornado knocked down several trees and a fence, damaged the roof of a house and damaged some outbuildings.

Event 71: June 23, 2004

The F/EF-0 tornado touched down in Whiting in Portage County at 6:47 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado caused minor tree damage in an industrial park in Whiting. Eyewitnesses observed water being sucked out of a pond at the same time as doors to an office were sucked open.

Event 72: June 23, 2004

The F/EF-1 tornado touched down 3 miles southeast of Blaine in southeastern Portage County around 6:53 pm CST. The tornado was 100 yards wide and travelled two and a half miles to 5 miles east southeast of Blaine at 6:56 pm CST. The tornado downed trees and overturned an irrigation system.

Event 73: June 23, 2004

The F/EF-2 tornado originally touched down in southeast Portage County. The tornado then strengthened as it moved into southwest Waupaca County 9 miles west of Waupaca around 6:56 pm CST. The tornado was 125 yards wide and travelled 11 miles before dissipating 2 miles southwest of Lind Center at 7:06 pm CST. The tornado scoured asphalt off a road, destroyed a barn, sheared off the top 50 feet of a silo crushing 3 calves, damaged a sheet metal outbuilding, and killed 3 sheep. The tornado tore the roof from a house and destroyed the garage, overturned a semi-trailer and moved it 50 feet. Many trees were snapped off or uprooted. Some of the debris from this tornado landed several miles to the east in the Fremont area of Waupaca County.

Event 74: June 23, 2004

The F/EF-1 tornado touched down in at least four locations from Little Chute to Kaukauna in Outagamie County between 8 pm and 8:08 pm CST. The tornado was 100 yards wide and travelled 3.5 miles before dissipating. The tornado toppled or twisted large trees, ripped parts of the roofs from residential and commercial buildings, destroyed storage sheds and an old barn. Semi trailers were overturned, some of them onto other vehicles.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 75: June 23, 2004

A brief F/EF-0 tornado touched down on the northwest side of Green Bay in Brown County at 8:27 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile. The tornado caused some tree damage.

Event 76: June 4, 2005

The F/EF-0 touched down one mile east of Auroraville in Waushara County at 1:54 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile. No significant damage was noted from this tornado.

Event 77: June 4, 2005

The F/EF-0 touched down 2 miles northwest of Borth in Waushara County at 2:05 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No significant damage was noted from this tornado.

Event 78: June 4, 2005

The F/EF-0 touched down 4 miles west of Edgar in Marathon County at 3:27 pm CST. The tornado was 75 yards wide and was on the ground for 1.2 miles before dissipating four and a half miles west northwest of Edgar at 3:29 pm CST. No damage was noted in the month storm report for this tornado.

Event 79: June 4, 2005

The F/EF-0 touched down a mile west of Athens in Marathon County at 3:39 pm CST. The tornado was 100 yards wide and was on the ground for 1.3 miles before the tornado dissipated a mile and a half northwest of Athens at 3:42 pm CST. The tornado downed some trees, flattened a barn and tore the roof from another barn.

Event 80: June 4, 2005

The F/EF-0 touched down 4 miles south of Athens in Marathon County at 5:06 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 81: June 4, 2005

The F/EF-0 touched down 3 miles west of Marathon in Marathon County at 5:20 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 82: June 4, 2005

A waterspout (F/EF-0) touched down on Lake Michigan 5 miles east of Kewaunee in Kewaunee County at 5:30 pm CST.

Event 83: June 4, 2005

The F/EF-0 touched down 7 miles south of Hogarty in Marathon County at 7:18 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 84: June 9, 2005

A waterspout (F/EF-0) touched down 5 miles southeast of Oshkosh on Lake Winnebago in Winnebago County at 5:40 pm CST. The waterspout was 40 yards wide and travelled 3 miles before dissipating 5 miles east of Oshkosh at 5:50 pm CST.

TORNADO REFERENCE GUIDE BY MONTH - JUNE
GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 85: June 9, 2005

A waterspout (F/EF-0) touched down 4 miles northwest of Stockbridge on Lake Winnebago in Calumet County at 6:14 pm CST. The waterspout was 25 yards wide and was on the water for a tenth of a mile.

Event 86: June 10, 2005

The F/EF-0 tornado touched down 4 miles west of Mosinee in Marathon County at 1:03 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was noted in the monthly storm data.

Event 87: June 10, 2005

The F/EF-0 tornado touched down one mile north of Winneconne in Winnebago County at 3:05 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 88: June 10, 2005

The F/EF-0 tornado touched down 2 miles west of Clintonville in Waupaca County at 3:10 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 89: June 10, 2005

A waterspout (F/EF-0) was reported 4 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:10 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 90: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:22 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 91: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago in Winnebago County at 7:48 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 92: June 13, 2005

The F/EF-0 tornado touched down 4.1 miles north northeast of Black Creek in Outagamie County at 2:49 pm CST. The tornado was 75 yards wide and was on the ground two tenths of a mile before it dissipated 4.1 miles north northeast of Black Creek at 2:50 pm CST. The tornado knocked down a tree and caused damage to shingles at a residence.

Event 93: June 18, 2006

A waterspout (F/EF-0) was reported 3 miles northwest of Sister Bay in Door County at 4:43 pm CST.

Event 94: June 24, 2006

A waterspout (F/EF-0) was reported 4 miles west of Sherwood on Lake Winnebago in Calumet County at 4:14 pm CST. The waterspout remained nearly stationary for a minute before dissipating.

Event 95: June 3, 2007

A brief landspout (F/EF-0) was reported about 2 miles east southeast of Shawano in Shawano County at 6:11 pm CST. The landspout lasted 20 seconds and was observed and photographed. No damage was reported.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 96: June 7, 2007

There were five tornadoes on this date across north central and northeast Wisconsin. The F/EF-2 tornado developed nine tenths of a mile west Peplin in Marathon County around 3:01 pm CST. The tornado travelled just over 7 miles and reached a maximum width of 225 yards before it dissipated nearly a mile north of Pike Lane around 3:14 pm CST. At least 8 homes, 10 barns, and numerous trees were damaged.

Event 97: June 7, 2007

The F/EF-0 tornado touched down 2.2 miles south of Wisconsin Rapids in Wood County at 3:26 pm CST. The brief tornado was seen by a storm chaser before dissipating 2.1 miles south of Wisconsin Rapids. The same storm also produced hail up to 5.5 inches in diameter in Port Edwards and Wisconsin Rapids.

Event 98: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

Picture on left: Tornado passing south of White Lake in Langlade Co. Picture courtesy: WAOW-TV.
Picture on right*:* Tornado as seen from HWY T in southwest Oconto Co. Picture courtesy of the Wisconsin Department of Natural Resources.

June 7, 2007: Tornadoes and Monster Hail

Path of tornado damage: Viewed by Aqua MODIS satellite. Courtesy: ERSC, UW-Madison.

TORNADO REFERENCE GUIDE BY MONTH - JUNE

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

June 7, 2007: Tornadoes and Monster Hail

Picture above: Damage at the Bear Paw Resort.

Picture on the left: More damage at the Bear Paw Resort.

Picture on the right: This is what remained of a double-wide mobile home in the town of Riverview. The owner heard the Tornado Warning and went into the bathtub (circled in large view), and escaped without a scratch!

Looking northeast across Hwy 64 in Oconto Co. The damage path was as much as 3/4 mile wide in this area. Picture: Courtesy Wisconsin DNR

Event 99: June 7, 2007

The F/EF-1 tornado developed a half mile west of Cedarville in Marinette County around 4:37 pm CST. The tornado was 200 yards wide and travelled three miles before it dissipated 2.5 miles east northeast of Cedarville around 4:40 pm CST. The tornado tore a significant portion of the roof from one home, snapped a few trees and uprooted numerous others. A manufactured home was moved off its foundation and down an embankment.

Event 100: June 7, 2007

The F/EF-1 tornado developed three and a half miles west of Harmony in Marinette County around 5:16 pm CST. The tornado was 200 yards wide and travelled 3.6 miles before dissipating 1.2 miles north of Harmony, or 2.9 miles south-southwest of Porterfield around 5:20 pm CST. One person was injured by flying debris as she sought refuge in their home. The tornado flattened a barn, tore a significant part of a sheet metal roof from an outbuilding, blew in a garage door and tore part of a roof deck over the garage from a home that was under construction.

Event 101: June 20, 2007

A waterspout (F/EF-0) was reported 6 miles northwest of Ellison Bay in Door County at 4:06 pm CST.

Event 102: June 15, 2015

A weak F/EF-0 tornado touched down at 2:31 pm CST a mile and a half north-northwest of Glenmore in Brown County. The tornado traveled just over a quarter of a mile and was 25 yards wide before the tornado dissipated 1.4 miles north-northwest of Glenmore. A swing set was toppled and a small metal shed was pushed twenty feet.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	2	7	1	1956	1205	5 E of Maplewood to 4 SE Institute	Door
2	1	7	11	1957	1345	4 SW Denmark	Brown
3	1	7	11	1957	1400	2.5 SE Whitelaw	Manitowoc
4	2	7	8	1959	1654	Niagara	Marinette
5	2	7	24	1962	1700	Corning	Lincoln
6	2	7	8	1965	1700	1 W - 1N Sherwood	Calumet
7	1	7	10	1966	2200	Plainfield - Wautoma	Waushara
8	0	7	25	1966	1820	0.5 E Maplewood	Door
9	1	7	1	1967	0045	3 E Kiel	Manitowoc
10	1	7	2	1967	1400	Brillion	Calumet
11	2	7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	Wood
12	0	7	2	1969	1600	Symco	Waupaca
13	1	7	2	1969	1620	3 SW Luxemburg - Ellisville	Kewaunee
14	2	7	7	1970	1500	Bancroft	Portage
15	1	7	7	1970	1900	Winchester - Boulder Junction - Conover	Vilas
16	1	7	14	1970	1230	Marion	Waupaca
17	1	7	14	1970	1400	McAllister	Marinette
18	1	7	30	1970	1205	4 W Suamico	Brown
19	1	7	8	1971	0200	Wisconsin Rapids	Wood
20	0	7	30	1971	0700	4 E Oshkosh (waterspout)	Winnebago
21	1	7	12	1973	0300	Boulder Junction - Sayner	Vilas
22	1	7	12	1973	0730	Jacksonport	Door
23	1	7	12	1973	0800	4 W Freedom	Outagamie
24	1	7	30	1977	2245	0.5 N Forest Junction - 3 W Denmark	Brown
25	1	7	5	1980	0030	Valders	Manitowoc
26	1	7	15	1982	1915	Mayflower Lake	Marathon
27	1	7	3	1983	0439	Eagle River	Vilas
28	2	7	3	1983	1735	6 W Unity - Cherokee	Marathon
29	1	7	3	1983	1900	Birnamwood	Shawano
30	0	7	3	1983	1911	5 NE Nekoosa	Wood
31	1	7	19	1983	1925	Stockbridge Harbor	Calumet
32	0	7	14	1984	2035	1 SE Peshtigo	Marinette
33	0	7	26	1984	1300-1310	5 E Oshkosh (waterspout)	Winnebago
34	0	7	4	1985	1703-1717	1 N Redgranite - 1 SW Pine River	Waushara
35	3	7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	Marinette
36	2	7	4	1986	1935-1940	5 SE Hazelhurst	Oneida
37	1	7	24	1986	1415	Saint Germain	Vilas
38	1	7	2	1987	1710-1715	Pike Lake	Marathon
39	1	7	12	1987	1127-1130	1 S Francis Creek	Manitowoc
40	1	7	29	1988	2030	Eagle River	Vilas
41	0	7	28	1991	1015	** Near Rock Island	Door
42	0	7	28	1991	1015	** Near Washington Island	Doo
43	1	7	19	1992	1554	2 WSW Stratford	Marathon
44	0	7	4	1994	1649	4 W Fremont	Waupaca
45	4	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	2	7	5	1994	1553	2 SW Cooperstown	Manitowoc
47	1	7	8	1994	1400	3 NW Elderon	Marathon
48	1	7	8	1994	1416	3 SE Aniwa	Shawano
49	1	7	14	1995	1640-1647	Phelps	Vilas
50	1	7	18	1996	1620-1630	1.5 SW - 3 SSE Tomahawk	Lincoln
51	0	7	18	1996	1745	5 NE Oshkosh (waterspout)	Winnebago
52	1	7	18	1996	1805-1807	1.1 S - 1.6 SE Jericho	Calumet
53	0	7	18	1996	1810	5.9 S Chilton	Calumet
54	0	7	18	1996	1815-1816	2.2 WNW - 1.8 W St Anna	Calumet
55	2	7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	Lincoln
56	2	7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	Marathon
57	0	7	16	1997	1500-1501	4 SW - 4.2 SW Hogarty	Marathon
58	0	7	16	1997	1500	3 N Sunset	Marathon
59	1	7	16	1997	1509-1511	2 NE - 1.8 NE Ringle	Marathon
60	0	7	16	1997	1520-1522	2 N - 1.8 N Elderon	Marathon
61	0	7	16	1997	1641-1642	Hancock	Waushara
62	0	7	13	2000	1455	1.5 NE Forestville	Door
63	0	7	20	2000	1258	2 W Sister Bay (waterspout)	Door
64	0	7	27	2000	1907-1910	1.5 W - 1.1 WSW Harmony	Marinette
65	0	7	27	2000	1930	1.7 W Peshtigo	Marinette
66	0	7	30	2002	1747-1750	10.5- 9.5 NW Merrill	Lincoln
67	0	7	30	2002	1808-1828	5 N - 9.5 NE Merrill	Lincoln
68	0	7	30	2002	1822	3 W - 0.8 W Central Wisconsin Airport	Marathon
69	0	7	30	2002	1825	8.5 NE Merrill	Lincoln
70	0	7	11	2004	1442-1445	8 SW Harshaw	Oneida
71	0	7	11	2004	1543	1 W Goodnow	Oneida
72	0	7	11	2004	1545	Irma	Lincoln
73	0	7	11	2004	1613	6 W Tomahawk	Lincoln
74	0	7	11	2004	1613	6 W Tomahawk	Lincoln
75	0	7	11	2004	1640	4 W Tomahawk	Lincoln
76	1	7	13	2004	1440-1452	1.4 NW Clark Mills to 2.8 SE Clark Mills	Manitowoc
77	1	7	19	2008	2144-2145	3.8 WNW to 3.4 WNW Menasha	Winnebago
78	0	7	29	2008	1527	3.6 NW Granite Heights	Marathon
79	0	7	29	2008	1559-1600	6.3 NNW Kalinke	Marathon
80	0	7	29	2008	1744-1749	4.2 SE Nasonville - 4.7 WNW Bethel	Wood
81	0	7	14	2010	1618-1619	2.5 WSW Veedum - 2.2 WSW Veedum	Wood
82	0	7	9	2013	1359-1404	0.5 NE Schultz - 3.9 W Bloomville	Lincoln
83	0	7	9	2013	1432-1456	10.8 S Parrish - 3.1 W Deerbrook	Langlade
84	0	7	9	2013	1644-1645	4.2 S Bancroft	Portage
85	0	7	9	2013	1850-1854	4.4 NNE Oconto - 5.2 NNE Oconto	Oconto
86	0	7	27	2014	1805	3.5 SE Oshkosh Wittman Field (waterspout)	Winnebago
87	1	7	6	2015	1538-1540	3.4 W Marion - 2.7 W Marion	Waupaca
88	0	7	6	2015	1603-1604	1.1 E Pella Airport	Waupaca
89	0	7	6	2015	1656-1703	2.2 ENE Gillette - 2.6 SSW Kelly Brook	Oconto

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 1: July 1, 1956

The F/EF-2 tornado developed 5 miles east of Maplewood in Door County and travelled 11 miles to four miles southeast of Institute around 12:05 pm CST. The tornado had a maximum width of 50 yards.

Event 2: July 11, 1957

The F/EF-1 tornado touched down 4 miles southwest of Denmark in Brown County around 1:45 pm CST. There was no documentation on the path width or distance travelled. A tornado also touched down in Manitowoc County fifteen minutes later.

Event 3: July 11, 1957

The F/EF-1 tornado was first reported to touch down two and a half miles southeast of White Law in Manitowoc County around 2 pm CST. The tornado struck the Bernard Vogel farm, picking up 9 trees thirty feet high and pounded them into the ground. The tornado also broke windows and gouged the side of the house. A female neighbor of Bernard Vogel, who was seeking shelter, was pinned up to the wall of a silo as she was running towards the house.

Event 4: July 8, 1959

The F/EF-2 tornado touched down in Niagara in Marinette County around 4:54 pm CST. The tornado travelled approximately one mile and had a maximum width of 50 yards. The tornado downed trees, flattened a garage, tore the roof off a house, bounced an automobile off a house, and hit a tavern. There were three injuries when the twister picked up their trailer home and dumped it 100 feet away.

Event 5: July 24, 1962

The F/EF-2 tornado touched down briefly in the town of Corning in Lincoln County around 5 pm CST. The tornado travelled about a mile and had a maximum width of 50 yards. The tornado destroyed a barn and other buildings in the town of Corning.

Event 6: July 8, 1965

The F/EF-2 tornado touched down one mile west of Sherwood in Calumet County and travelled approximately 3 miles to the northeast before dissipating one mile north of Sherwood around 5 pm CST. The tornado was 100 yards wide. The twister, striking in a narrow path northeast from High Cliff Park broke trees, power and telephone poles, and leveled a barn at the farm of Mrs. Anna Goaz at Route 1 in Menasha. Several other farm properties were damaged. Two teenage girls received multiple cuts and bruises when they were picked up by the twister and thrown down on a road in the High Cliff Beach area.

Event 7: July 10, 1966

The F/EF-1 tornado was first reported to touch down in Plainfield in Waushara County around 10 pm CST. The tornado was 100 yards wide and travelled approximately fifteen and a half miles before dissipating at Wautoma.

Event 8: July 25, 1966:

The F/EF-0 tornado touched down about a half mile east of Maplewood in Door County around 6:20 pm CST. The tornado was 20 yards wide and travelled approximately two miles. An interesting note to the local storm report from July 1966 indicated a strong waterspout was noted over the Bay of Green Bay. According to the local storm report, a waterspout lifted several boats out of the water dropping one on a car at Ephraim. It also dropped twelve large trees down at Gordon Lodge. This tornado/waterspout was not documented in this study.

Event 9: July 1, 1967

The F/EF-1 tornado struck 3 miles east of Kiel in Manitowoc County around 12:45 am CST. The tornado was 50 yards wide and travelled a half mile before dissipating.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 10: July 2, 1967

The city of Brillion in Calumet County was struck by an F/EF-1 tornado around 2 pm CST. The local storm report indicated a touchdown in the city of Brillion. The tornado was 35 yards wide and travelled a mile before dissipating.

Event 11: July 22, 1967

The F/EF-2 tornado developed around 11 pm CST near Loyal in Clark County. The tornado then moved east southeast into Wood County. The tornado travelled nearly 21 miles before dissipating five miles east of Marshfield around 11:18 pm CST. The maximum width of the tornado was 100 yards. The tornado destroyed three barns and killed sixteen cattle near Loyal in Clark County. Several buildings and mobile homes were destroyed at Marshfield in Wood County.

Event 12: July 2, 1969

The F/EF-0 tornado touched down in Symco in Waupaca County around 4 pm CST. The tornado was 100 yards wide and travelled 4.3 miles before dissipating. The tornado produced extensive damage to buildings on the Howard Winter farm between Manawa and Big Falls. Utility wires were also damaged along Highway 22 near Symco.

Event 13: July 2, 1969

The F/EF-1 tornado traveled just over 7 miles across Kewaunee County, from 3 miles southwest of Luxemburg through the Ellisville area around 4:20 pm CST. The tornado had a maximum width of 100 yards. Several farms were damaged by the tornado.

Event 14: July 7, 1970

The F/EF-2 tornado touched down in Bancroft in Portage County around 3 pm CST. The tornado moved east southeast for two miles and reached a maximum width of a hundred yards before dissipating. Damage was confined to a machine shed and tore the roof off a new school.

Event 15: July 7, 1970

The F/EF-1 tornado developed across Iron County in northwest Wisconsin. The tornado traveled east southeastward for nearly 38 miles across Vilas County around 7 pm CST. The tornado travelled from Winchester to Boulder Junction to Conover. Extensive damage to woods and lake property were noted in the path of the tornado.

Event 16: July 14, 1970

The F/EF-1 tornado briefly touched down in Marion in Waupaca County around 12:30 pm CST. The tornado was less than 50 yards wide and travelled approximately a half mile. The tornado ripped a door off a factory, flipping over a car and damaging trucks and signs in Marion.

Event 17: July 14, 1970

The F/EF-1 tornado was reported in Mc Allister in Marinette County around 2 pm CST. The tornado was less than 50 yards wide and travelled a mile. The tornado damaged a home and uprooted several trees.

Event 18: July 30, 1970

A brief tornado touchdown (F/EF-1) occurred 4 miles west of Suamico in Brown County. The tornado was less than 50 yards wide and travelled a mile before dissipating. According to the local storm report, the tornado struck in open country.

Event 19: July 8, 1971

The F/EF-1 tornado moved through open country just north of Wisconsin Rapids in Wood County around 2 am CST. The tornado was 75 yards wide and travelled about two miles before it dissipated. One house trailer moved off its foundation while there was damage to trees in the area.

Event 20: July 30, 1971

Numerous waterspouts (F/EF-0) were reported about 4 miles east of Oshkosh in Winnebago County around 7 am CST. The waterspouts formed east of Oshkosh as cold air with large cyclonic vorticity moved over the warm lake according to the monthly storm report.

Event 21: July 12, 1973

The F/EF-1 tornado was struck touchdown just south of Boulder Junction in Vilas County around 3 am CST. The tornado was 100 yards wide and travelled 19.5 miles before dissipating near Sayner in Vilas County. Scattered damage to the woods was reported along the path of the tornado.

Event 22: July 12, 1973

The F/EF-1 tornado touched down in Jacksonport in Door County around 7:30 am CST. The tornado was 100 yards wide and travelled 3 miles. Scattered damage was reported west and south of Jacksonport. As many as six waterspouts were reported by one observer off Jacksonport. A seiche caused a drop of two feet in water level locally about fifteen minutes after passage of the storms.

Event 23: July 12, 1973

The F/EF-1 tornado developed 4 miles west of Freedom in Outagamie County around 8 am CST. The tornado was 100 yards wide and travelled one mile. Farm buildings were destroyed on the Ken Geiger farm 4 miles west of Freedom.

Event 24: July 30, 1977

The F/EF-1 tornado initially developed a half mile west of Forest Junction in Brown County around 10:45 pm CST, destroying a rural farm including a large barn, milk house and several small sheds. The tornado was 100 yards and travelled twelve miles before dissipating in Denmark. In Denmark, a roof of an apartment building was blown off, a couple of garages were destroyed and some farm machinery was toppled.

Event 25: July 5, 1980

The F/EF-1 tornado struck the farm of Warren Otto just south of Valders in Manitowoc County around 12:30 am CST. There was no documentation on path length or width of the tornado. The tornado destroyed a barn and machine shed, and farm machinery on the Warren Otto farm. Other farm buildings in the area also sustained minor damage.

Event 26: July 15, 1982

The F/EF-1 tornado swept southeast from May Flower Lake into rural areas at the south end of the lake in Marathon County around 7:15 pm CST. The tornado was 50 yards wide and travelled three quarters of a mile. Several trees were downed and one residence was damaged.

Event 27: July 3, 1983

The Eagle River Municipal Airport in Vilas County was hit by the F/EF-1 tornado at 4:39 am CST. The tornado was 20 yards wide and travelled a half mile before dissipating. Two single engine planes were destroyed and thirteen others were damaged. Five eighths inch ropes holding the planes down were shredded. One plane cart wheeled four hundred feet.

Event 28: July 3, 1983

The F/EF-2 tornado was first spotted near a home 6 miles west of Unity in Clark County around 5:35 pm CST. The tornado skipped across Clark County, skirting just north of Unity and crossed Highway 13 into Marathon County. In Marathon County, the tornado struck a farm just east of Highway 13, flipping a truck and camper as well as ripping a shed off its foundation. The tornado then struck a farm one mile east of Colby and just south of Highway N destroying many trees. The next farm to the east was struck and two hay wagons were flipped over and a chimney was knocked off. The tornado hit a farm three miles east of Colby and one mile south of Highway N. A large barn was pushed off its foundation. The tornado

Event 28: July 3, 1983 continued

moved across Highway F just south of Cherokee, and into an 18 acre wooded lot destroying fifty large trees. Finally, a farm just east of Cherokee and south of Highway N took off the top of a silo. There were no further reports to the east. The tornado travelled approximately 6 miles and had a maximum width of fifty-five yards.

Event 29: July 3, 1983

The F/EF-1 tornado touched down in Birnamwood in Shawano County around 7 pm CST. The tornado was 50 yards wide and travelled a half mile.

Event 30: July 3, 1983:

The F/EF-0 tornado briefly touched down 5 miles northeast of Nekoosa in Wood County around 7:11 pm CST. The tornado was approximately 10 yards wide and travelled three tenths of a mile before dissipating.

Event 31: July 19, 1983

The tornado (F/EF-1) touched down at Stockbridge Harbor in Calumet County around 7:25 pm CST. The tornado smashed a shed roof and damaged two homes near Lake Shore Drive. The tornado turned east southeast damaging two garages and a barn on Military Road and then Hickory Hill Road where the roof of a mobile home was destroyed. The tornado was 100 yards wide and travelled 2 miles before dissipating.

Event 32: July 14, 1984

The F/EF-0 touched down near County trunks BB and B one mile southeast of Peshtigo in Marinette County around 8:35 pm CST. The tornado was 25 yards wide and travelled only a tenth of a mile. Numerous trees and power lines were downed and there was minor damage to a home.

Event 33: July 26, 1984

A waterspout (F/EF-0) was noted 5 miles east of Oshkosh on Lake Winnebago in Winnebago County between 1 pm and 1:10 pm CST.

Event 34: July 4, 1985:

The F/EF-0 tornado touched down one mile north of Redgranite in Waushara County around 5:03 pm CST. The tornado was 50 yards wide and skipped along for 5 miles before dissipating one mile southwest of Pine River around 5:17 pm CST. The tornado damaged a house one mile southwest of Pine River. The storm also produced hail up to three and a half inches in the Richford and Hancock areas. The large hail dented 47 new cars at a dealership in Coloma.

Event 35: July 4, 1986

The F/EF-3 tornado touched down 2 miles south of Niagara in Marinette County at Highway 8 and Highway 141 around 7 pm CST. The tornado demolished a building next to a restaurant and slashed some trees. The tornado then skipped east-southeast and destroyed a home and garage, carrying its roof a half mile away. The tornado crossed the Menominee River and into the Carney-Nadeau area of Menominee County, Michigan around 7:25 pm CST. The tornado travelled 8 miles and was 100 yards wide.

Event 36: July 4, 1986

The F/EF-2 tornado touched down on the south shore of Windpudding Lake or 5 miles southeast of Hazelhurst in Oneida County around 7:35 pm CST. The tornado heavily damaged seven cottages and leveled numerous trees. A shed was blown thirty feet through the air. A dog inside the shed survived. The tornado travelled a mile and a half and reached a maximum width of 100 yards before it dissipated around 7:40 pm CST.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 37: July 24, 1986

The F/EF-1 tornado briefly touched down around 2:15 pm CST on South Shore Drive near Little St. Germain Lake near St. Germain in Vilas County. The tornado was 50 yards wide and travelled a quarter of a mile. Five buildings, some garages, some boats and docks were damaged. A dozen trees were snapped off at the base.

Event 38: July 2, 1987

A brief tornado touched down just east of Pike Lake in Marathon County around 5:10 pm CST. The F/EF-1 tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 5:15 pm CST. Numerous trees were twisted and knocked down causing damage to seven homes, a boat trailer and one boat foundation.

Event 39: July 12, 1987

The F/EF-1 tornado touched down one mile south of Francis Creek in Manitowoc County around 11:27 am CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 11:30 am CST. One house and a garage were destroyed. A barn, shed and several trees were also damaged. Debris from the house was found as far as several miles away.

Event 40: July 29, 1988

The brief tornado touched down in the Eagle River in Vilas County around 8:30 pm CST. The tornado was 50 yards wide and only travelled a tenth of a mile. The F/EF-1 tornado damaged the Northland Pines High School in Eagle River. Winds accompanying the storm downed signs and trees in the Eagle River area.

Event 41: July 28, 1991

A waterspout was reported near Rock Island across extreme northern Door County at 10:15 am CST. A second waterspout was reported near Washington Island.

Event 42: July 28, 1991

A waterspout was reported near Washington Island across extreme northern Door County around 10:15 am CST. A second waterspout was reported near Rock Island around the same time.

Event 43: July 19, 1992

The F/EF-1 tornado formed 2 miles west southwest of Stratford in Marathon County around 3:54 pm CST. The tornado was 400 yards wide and was on the ground for only a quarter of a mile. The damage from the tornado included: a destroyed barn, two houses and one garage damaged while several trees were downed.

Event 44: July 4, 1994

The F/EF-0 tornado touched down 4 miles west of Fremont in Waupaca County around 4:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado did not produce any significant damage.

Event 45: July 5, 1994

A powerful F/EF-4 tornado cut a short but devastating path in northern Manitowoc County from two and one half miles northwest of Maribel around 3:43 pm CST to a half mile west of Cooperstown before dissipating around 3:55 pm CST. A second small tornado also developed two miles southwest of Cooperstown and carved out a minor damage path leveling a shed and tossing a grain box 300 yards. Much of the $2.1 million in damages was inflicted by the first tornado. The tornado damaged 26 homes, 19 vehicles and one mobile home. Four heifers and two sheep were also killed. One man was injured when he was struck by a 55 gallon drum while a woman suffered minor injuries when pieces of a stone foundation fell on her. The tornado travelled three and a half miles and reached 150 yards in diameter.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 46: July 5, 1994

On this date, the F/EF-2 tornado touched down 2 miles southwest of Cooperstown in Manitowoc County around 3:53 pm CST. The tornado travelled about a mile and reached a maximum width of 150 yards. A shed was leveled and a grain box was tossed about 300 yards. This was one of two tornadoes to hit Manitowoc County on this date. A stronger F/EF-4 tornado touched down two and a half miles northwest of Maribel and traveled to a half mile west of Cooperstown between 3:43 pm and 3:55 pm CST.

Event 47: July 8, 1994

The F/EF-1 tornado touched 3 miles northwest of Elderon in Marathon County around 2 pm CST. The tornado was 75 yards wide and only travelled two tenths of a mile. The tornado moved a garage off its foundation and wrecked a house roof and shed three miles northwest of Elderon.

Event 48: July 8, 1994

The F/EF-1 tornado formed three miles southeast of Aniwa in Shawano County around 2:16 pm CST. The tornado was 75 yards wide. The tornado only travelled two tenths of a mile. The tornado destroyed a garage and toppled trees three miles southeast of Aniwa.

Event 49: July 14, 1995

The tornado touched down a mile and a half southwest of Phelps in Vilas County around 4:40 pm CST. The F/EF-1 tornado was 250 yards wide and travelled east for three and a half miles before dissipating just southeast of Phelps at 4:47 pm CST. Trees fell on cars, homes and businesses.

Event 50: July 18, 1996

The F/EF-1 tornado touched down a mile and a half southwest of Tomahawk at 4:20 pm CST. The tornado uprooted two trees at Bradley Park, then moved southeast across Lake Mohawkskin, flipping two boats over. The tornado moved back on land and tore part of a roof off a tavern while a garage was removed from its foundation. It continued to move into the Road Lake area where it produced its most significant damage. Three cottages were damaged after trees fell on them. The tornado reached a maximum width of 100 yards before it dissipated nearly three miles southeast of Tomahawk around 4:30 pm CST.

Event 51: July 18, 1996

A waterspout (F/EF-0) was spotted 5 miles east of Oshkosh over Lake Winnebago in Winnebago County around 5:45 pm CST.

Event 52: July 18, 1996

The F/EF-1 tornado touched down 1.1 miles south of Jericho in Calumet County around 6:05 pm CST. The tornado was 100 yards wide and was on the ground a mile and a half before it dissipated 1.6 miles southeast of Jericho at 6:07 pm CST.

Event 53: July 18, 1996

The F/EF-0 developed 5.9 miles south of Chilton in Calumet County around 6:10 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado moved over a squad car, violently shaking it about. The tornado flattened portions of two nearby wheat fields.

Event 54: July 18, 1996

The F/EF-0 tornado developed 2.2 miles west northwest of St. Anna in Calumet County around 6:15 pm CST. The tornado was 50 yards wide and travelled a half mile before dissipating 1.8 miles west of St. Anna around 6:16 pm CST. The tornado damaged one farm, numerous trees and some crops. Calf houses at the farm were thrown 1,000 feet. The tornado entered Fond Du Lac County 1.6 miles southeast of Jericho and then reentered Calumet County 2.2 west north of St. Anna.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 55: July 16, 1997

On this date the F/EF-2 tornado touched down in southeast Lincoln County eleven and a half miles southeast of Merrill around 2:38 pm CST. The storm travelled under a mile to the southeast into Marathon County before dissipating 12 miles southeast of Merrill around 2:40 pm CST. The tornado reached a maximum width of 100 yards. As the storms rolled through Lincoln County, softball size hail was reported northeast of Merrill.

Event 56: July 16, 1997

The F/EF-2 tornado touched down eight and a half miles northeast of Nutterville in Marathon County around 2:40 pm CST. The storm traveled just over three miles and reached a maximum width of 100 yards before dissipating 6.9 miles northeast of Nutterville around 2:45 pm CST. The tornado damaged several homes, vehicles and silos, and destroyed numerous barns, sheds and crops. Twenty head of dairy cattle were killed or had to be destroyed. There were two other tornadoes with this tornadic supercell. Total damage to crops and property from the five tornadoes, hail and straight-line winds in Marathon County alone topped $10 million.

Event 57: July 16, 1997

The F/EF-0 tornado developed 4 miles southwest of Hogarty in Marathon County around 3 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 4.2 miles southwest of Hogarty around 3:01 pm CST.

Event 58: July 16, 1997

The F/EF-0 tornado touched down 3 miles north of Sunset in Marathon County around 3 pm CST. The tornado was 15 yards wide and was on the ground for a tenth of a mile before dissipating at 3:01 pm CST.

Event 59: July 16, 1997

The F/EF-1 tornado briefly touched down two miles northeast of Ringle in Marathon County around 3:09 pm CST. The tornado was 50 yards wide and only travelled two tenths of a mile before dissipating 1.8 miles northeast of Ringle around 3:11 pm CST.

Event 60: July 16, 1997

The F/EF-0 tornado touched down 2 miles north of Elderon in Marathon County around 3:20 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 1.8 miles north of Elderon around 3:22 pm CST.

Event 61: July 16, 1997

The F/EF-0 tornado touched down in Hancock in Waushara County at 4:41 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating at 4:42 pm CST. The tornado touched down in an open field in Hancock.

Event 62: July 13, 2000

The F/EF-0 tornado touched down 1.5 miles northeast of Forestville in Door County at 2:55 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage.

Event 63: July 20, 2000:

Boaters spotted a waterspout (F/EF-0) two miles west of Sister Bay in Door County at 12:58 pm CST.

Event 64: July 27, 2000

The F/EF-0 tornado first touched down 1.5 miles west of Harmony in Marinette County at 7:07 pm CST. The tornado was 50 yards wide and was on the ground for four tenths of a mile before it dissipated 1.1 miles west southwest of Harmony at 7:10 pm CST. Another tornado (F/EF-0) occurred at 7:30 pm CST 1.7 miles west of Peshtigo. The first tornado report was received even before the storm became visible on radar.

Event 65: July 27, 2000

A brief F/EF-0 tornado touched down 1.7 miles west of Peshtigo in Marinette County at 7:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile.

Event 66: July 30, 2002

The F/EF-0 tornado touched down ten and a half miles west of Merrill in Lincoln County around 5:47 pm CST. The tornado was 150 yards wide and skipped along the ground for 1.2 miles before dissipating nine and a half miles west of Merrill around 5:50 pm CST.

Event 67: July 30, 2002

The F/EF-0 tornado developed 5 miles north of Merrill in Lincoln County at 6:08 pm CST. The tornado was 200 yards wide and travelled on the ground for 9 miles before dissipating nine and a half miles northeast of Merrill at 6:28 pm CST. The tornado destroyed a barn and another structure, tearing roofs from some buildings and moving others from their foundation.

Event 68: July 30, 2002

The F/EF-0 tornado developed 3 miles west of the Central Wisconsin Airport in Marathon County at 6:22 pm CST. The tornado was 100 yards wide and travelled just over 2 miles on the ground before dissipating eight tenths of a mile west of the Central Wisconsin Airport at 6:28 pm CST. The tornado caused significant tree damage on a hill east of the Wisconsin River.

Event 69: July 30, 2002

The F/EF-0 tornado formed 8.5 miles northeast of Merrill in Lincoln County at 6:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado demolished a mobile home and snapped trees and tree limbs.

Event 70: July 11, 2004

A brief F/EF-0 tornado touched down 8 miles southwest of Harshaw in Oneida County at 2:42 pm CST. The tornado was 60 yards wide and was on the ground for two tenths of a mile before dissipating at 2:45 pm CST. The tornado topped numerous trees onto power lines and damaged a pontoon boat.

Event 71: July 11, 2004

A brief F/EF-0 tornado touched down one mile west of Goodnow in Oneida County at 3:43 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 72: July 11, 2004

A brief F/EF-0 tornado touched down in Irma in Lincoln County at 3:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 73: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 74: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk in Lincoln County at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 75: July 11, 2004

A brief F/EF-0 tornado touched down 4 miles west of Tomahawk in Lincoln County at 4:40 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 76: July 13, 2004

The F/EF-1 tornado touched down 1.4 miles northwest of Clark Mills in Manitowoc County around 2:40 pm CST. The tornado was 500 yards wide and travelled just over four miles before dissipating 2.8 miles southeast of Clark Mills around 2:52 pm CST. The tornado caused extensive damage two farms. The tornado destroyed two garages, two barns, two milking parlors and three silos. The tornado also destroyed 45 calf hutches and about 80 acres of alfalfa. The tornado snapped and uprooted trees and carried a calf about a half a mile away where it was found still alive.

Event 77: July 19, 2008

A brief F/EF-1 tornado touched down 3.8 miles west northwest of Menasha in Winnebago County around 10:44 pm CST. The tornado was 40 yards wide and travelled a half a mile before it dissipated 3.4 miles west northwest of Menasha at 10:45 pm CST. The tornado produced sporadic damage along a narrow path almost a half a mile long. An apartment complex sustained the heaviest damage. Four buildings were affected, two of which lost parts of their roofs.

Event 78: July 29, 2008

The F/EF-0 tornado briefly touched down 3.6 miles northwest of Granite Heights in Marathon County at 3:27 pm CST. The tornado was 15 yards wide and travelled a tenth of a mile. Law enforcement witnessed the brief tornado touchdown north of Brokaw near the Lincoln County border. No damage was reported.

Event 79: July 29, 2008

The F/EF-0 tornado briefly touched down 6.2 miles north northwest of Kalinke in Marathon County at 3:59 pm CST. The tornado was 25 yards wide and travelled a quarter of a mile before dissipating at 4 pm CST. The tornado touched down just south of County Line Road near County Road Q. Several trees in an open field were knocked over.

Event 80: July 29, 2008

The F/EF-0 tornado touched down 4.2 miles southeast of Nasonville in Wood County at 5:44 pm CST. The tornado was 25 yards wide and travelled a mile and a half before dissipating 4.7 miles west of Bethel at 5:49 pm CST. The tornado touched down north of Pittsville, tearing leaves and twigs from tops of trees. The tornado was seen by a county sheriff.

Event 81: July 14, 2010

The F/EF-0 tornado touched down 2.5 miles west southwest of Veedum in Wood County at 4:18 pm CST. The tornado travelled a quarter of a mile and was 50 yards wide before it dissipated 2.2 miles west southwest of Veedum. The brief tornado was reported by the public and confirmed by local emergency management about 5 miles west of Pittsville. A dozen trees were knocked down and several large tree limbs fell onto a house. Wind speed estimated at 80 mph.

TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 82: July 9, 2013

A tornado (F/EF-0) touched down 0.5 NE of Schultz, or about six miles south of Irma in Lincoln County at 1:59 pm CST. The tornado moved east for about 4.1 miles and was 100 yards wide (average width was 75 yards). A few trees and power lines were knocked down. The tornado dissipated 3.9 miles west of Bloomville at 2:04 pm CST.

Event 83: July 9, 2013

A tornado (F/EF-0) touched down 10.8 miles south of Parrish in Langlade County (near the Lincoln / Langlade County line) around 2:32 pm CST. The tornado traveled east for about nine and a half miles, although the tornado track was not continuous. The maximum width of the tornado was 100 yards, with an average width of 75 yards. The tornado damage was to trees and tree limbs. The tornado dissipated 3.1 miles west of Deerbrook at 2:56 pm CST.

Event 84: July 9, 2013

A tornado (F/EF-0) touched down 4.2 miles south of Bancroft in Portage County around 4:44 pm CST in an open field just west of Interstate 39. The tornado was observed by a storm spotter and did no damage. The maximum width was 25 yards and traveled less than two tenths of a mile before dissipating at 4:45 pm CST.

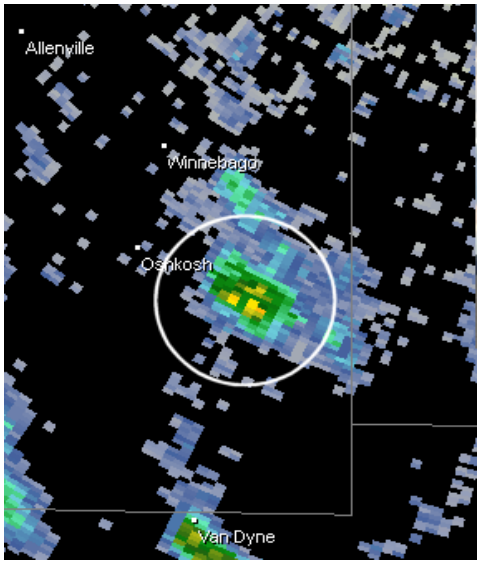
Event 85: July 9, 2013

A tornado (F/EF-0) touched down about four and a half miles north northeast of Oconto in Oconto County at 6:40 pm CST. The tornado was observed by an eyewitness just east of Highway 41 near Swede Town Road and County Road A. The tornado moved east for about a mile and half toward the bay before dissipating at 6:54 pm CST. Dozens of trees were snapped and uprooted, and also blew over a recreational vehicle trailer along its path. The maximum width of the tornado was one hundred yards with an average width of seventy-five yards.

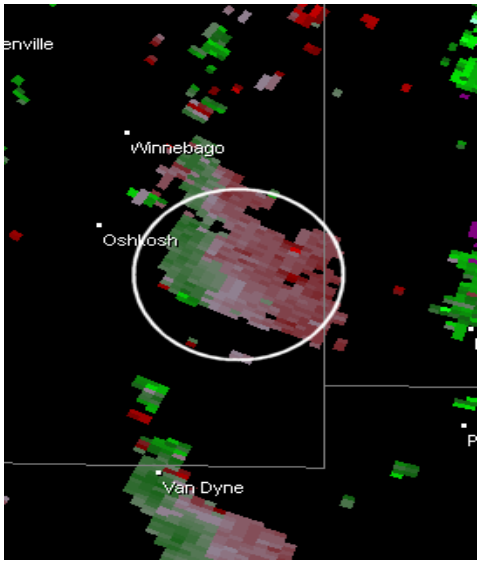
Event 86: July 27, 2014

A very weak and brief waterspout formed under a rain shower over southern Lake Winnebago, about 5 miles southeast of Oshkosh around 6:05 pm CST. The waterspout (photo below) was on the water for a just a few seconds and then dissipated. The parent funnel was seen by hundreds of people across the area. No damage occurred.

Photograph submitted to NWS.



Radar image: Green Bay radar.



Velocity image: Green Bay radar.

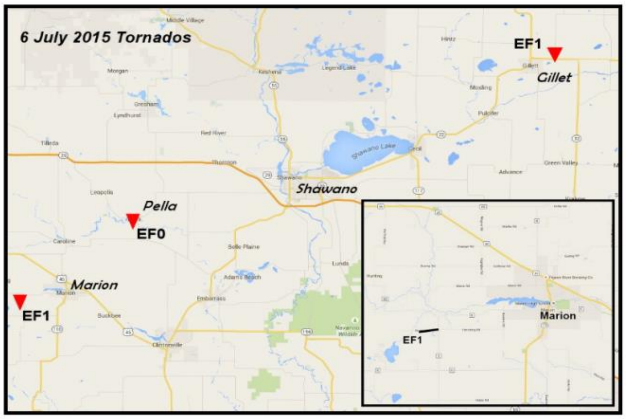
TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 87: July 6, 2015

An F/EF-0 tornado touched down at 2:31 pm CST 3.4 miles west of Marion (see map next page) in Waupaca County. The tornado travelled three quarters of a mile and had a maximum width of 75 yards wide before dissipating 2.7 miles west of Marion at 2:40 pm CST. The tornado heavily damaged a bard and adjacent garage. The roof of a nearby house was damaged and winds of another home were broken. At least two dozen trees were uprooted or snapped. The average path width was 50 yards.

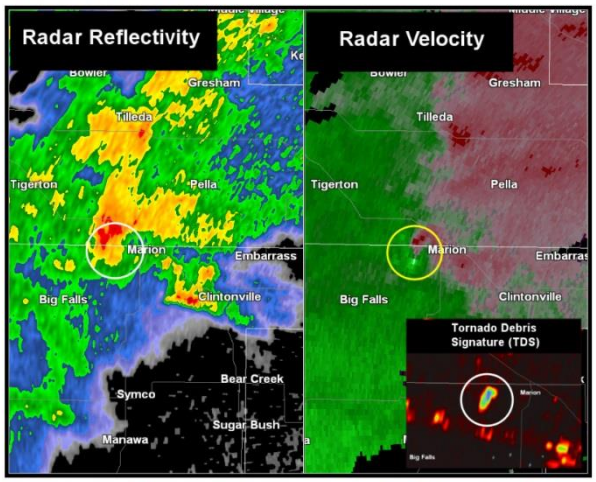
This was one of three tornadoes that touched down in northeast Wisconsin on this date. What was unusual about this event was there was no thunder noted with the tornadoes (very rare!). The radar image shows in the intense rotation west of Marion.



***Preliminary** Tornado Map (above). Red triangles denote **approximate** location of brief tornado touchdowns. Inset above denotes the location of the EF1 tornado west of Marion, Wisconsin.*

Tornado	Begin	End	Path
Marion EF1	4:38 PM, 3 W Marion	4:40 PM, 2.6 W Marion	Length: 0.4 mi Width: 75 yards
Pella EF0	5:03 PM, 2 E Pella	5:03 PM, 2 E Pella	Length: 0.1 mi Width: 25 yards
Gillett EF1	5:56 PM, 2 E Gillett	6:03 PM, 3 ENE Gillett	Length: 2.2 mi Width: 50 yards

The first tornado developed just ahead of the main line of showers over northern Waupaca County. This storm quickly attained supercell characteristics and generated a brief **EF1** tornado about three miles west of Marion in extreme northern Waupaca County (***see map insert above and radar images below***).



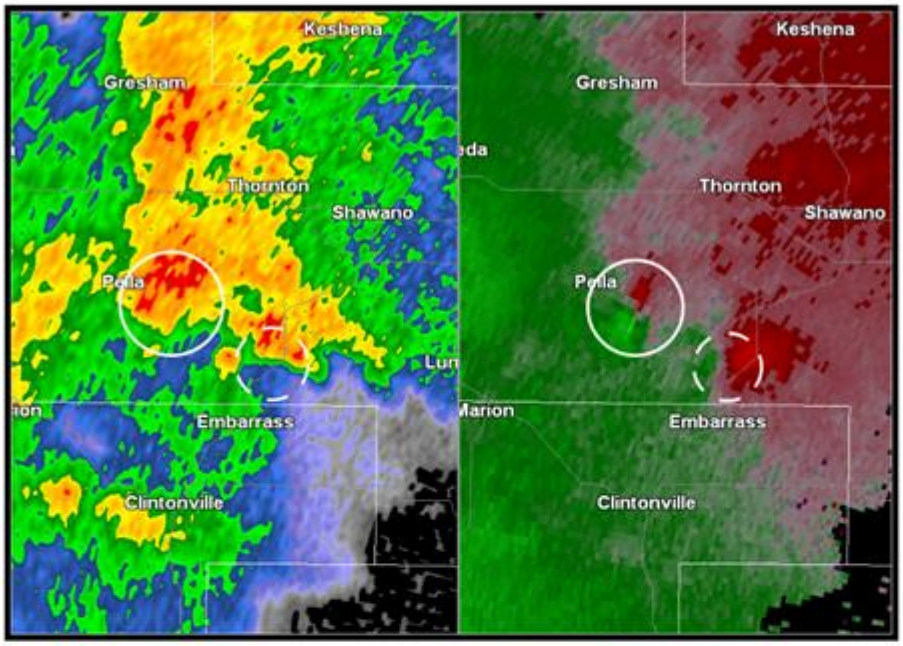
Radar reflectivity (above Left) and radar velocity (above right) around time of the EF1 tornado west of Marion. Insert in the above image is the dual polarization correlation coefficient (CC) product denoting the location of debris produced by the tornado.

Here are some damge photos from the Marion tornado:

Event 88: July 6, 2015

An F/EF-0 tornado touched down at 4:03 pm CST just over a mile east of the Pella Airport in Shawano County. The tornado travelled nearly a tenth of a mile and was 25 yards wide before dissipating at 4:04 pm CST. The tornado tore off part of a barn and sent wooden pallets into a nearby field.

As this cell continued to move northeast into Shawano County, it produced another very weak tornado (**EF0**) that briefly touched down near Pella in central Shawano County around 5 pm CDT (***denoted by the white circle in the image below***). The dashed circle in the image below denotes a new circulation associated with a different cell that was developing to the southeast of the Pella (just north of Embarrass).



Radar reflectivity (above left) and velocity image (above right) associated with brief tornado touchdown near Pella (denoted by solid circle in the image above). Dashed circle denotes a new circulation that eventually produces a tornado near Gillett about 50 minutes later.

ere are some damge photos from the Pella tornado:

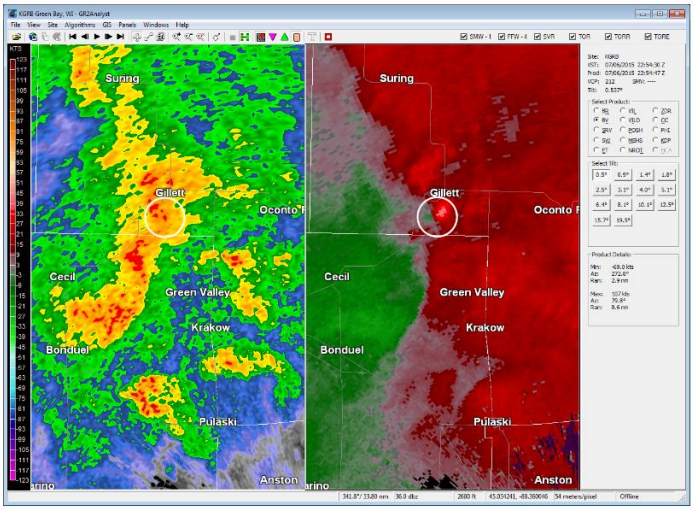
TORNADO REFERENCE GUIDE BY MONTH - JULY

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 89: July 6, 2015

An F/EF-0 tornado touched down at 4:56 pm CST 2.2 miles east-northeast of Gillett in Oconto County. The tornado travelled two and a quarter miles and was 50 yards wild before dissipating 2.6 miles south-southwest of Kelly Brook at 5:03 pm CST. The tornado uprooted or snapped at least twenty trees and caused minor damage to a house.

This new cell north of Embarrass continued to organize and strengthen and eventually produced an **EF1** Tornado near Gillett in western Oconto County around 555 pm CDT (***see image below***).



Radar reflectivity (above left) and velocity (above right) denoting the location of the storm that produced an EF1 tornado near Gillett around 555 pm CDT.

Here are some damge photos from the Gillett tornado:

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	1	8	30	1958	1526	6 SE Wausaukee	Marinette
2	2	8	28	1959	1404	3 N Appleton	Outagamie
3	2	8	22	1964	1400	6 W Bancroft - Grant	Portage
4	1	8	5	1968	1400	3 NW Seymour	Outagamie
5	2	8	16	1968	1230	Kaukauna	Outagamie
6	2	8	16	1968	2120	5 SE Hofa Park - 4 S Pulaski	Brown
7	4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
8	2	8	19	1968	1730	4 W Fenwood - 11 E Fenwood	Marathon
9	1	8	21	1972	1510	Goodwin - Two Rivers	Manitowoc
10	3	8	31	1977	1815	1 SW Stratford - Wausau	Marathon
11	1	8	4	1979	1000	Manitowoc	Manitowoc
12	2	8	9	1979	1820	Rockland Beach	Calumet
13	1	8	9	1979	1856	Green Bay - northeast	Brown
14	2	8	12	1985	1813-1830	6 S Marshfield - Auburndale	Wood
15	0	8	12	1985	1930-1945	1 N Richford	Waushara
16	1	8	14	1987	1740-1743	1 W Menasha	Winnebago
17	1	8	1	1988	1852	1 W Saint Germain	Vilas
18	0	8	1	1988	1820	3 S Hazelhurst	Oneida
19	0	8	1	1988	1922	2 SE Eagle River	Vilas
20	1	8	4	1988	1435-1445	1 E Reedsville - 2 N Cato	Manitowoc
21	3	8	29	1992	1910-1955	1 N Wautoma - 3 SE Poysippi	Waushara
22	0	8	9	1993	2015	1 N Tripoli	Oneida
23	1	8	27	1994	2107	Hancock	Waushara
24	1	8	27	1994	2141-2150	1.5 S Wausaukee - 3 SE Wausaukee	Marinette
25	2	8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	Marathon
26	1	8	7	1996	0146-0147	1 N - 1.2 NE Stratford	Marathon
27	1	8	7	1996	0219-0221	0.4 SW Shantytown - Shantytown	Marathon
28	0	8	23	1998	1522	Menasha	Winnebago
29	3	8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	Door
30	0	8	3	1999	1745	3 W Pittsville	Wood
31	0	8	4	1999	1605-1615	21 ESE Sturgeon Bay (waterspout)	Door
32	0	8	14	2000	1910	Lake Tomahawk	Oneida
33	1	8	3	2003	1359-1403	0.3 W - 0.2 ENE Potter	Calumet
34	0	8	18	2005	1732	6 WSW - 3.7 SW Wautoma	Waushara
35	0	8	18	2005	1838-1841	4 SSW to 3.4 SW New London	Waupaca
36	0	8	18	2005	1840-1848	4.5 W - 2.6 NW Neenah	Winnebago
37	1	8	18	2005	1945-1949	6 ENE - 6.8 ENE Wrightstown	Brown
38	1	8	18	2005	2035	6.5 SSW - 5.7 S Manitowoc	Manitowoc
39	1	8	20	2010	1520-1522	2 SE - 2.7 ESE Greenleaf	Brown
40	1	8	19	2011	1545-1556	2.9 NW - 5.2 ESE Wausaukee	Marinette
41	0	8	23	2011	1658	0.3 NW Arpin	Wood
42	0	8	23	2011	1756-1757	0.9 - 1.1 SE Briarton	Shawano
43	0	8	23	2011	2005-2006	0.8 ENE – 1.3 E Sherwood	Calumet
44	0	8	9	2012	1210-1220	6 S Kewaunee (waterspout)	Kewaunee
45	0	8	9	2012	1225-1235	6 S Kewaunee (waterspout)	Kewaunee

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
46	1	8	6	2013	2322-2333	4 NNE Partridge - 0.8 WSW Hortonville	Waupaca, Outagamie
47	2	8	6	2013	2324-2333	1.2 W New London - 0.4 WSW Greenville	Waupaca, Outagamie
48	1	8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	Outagamie, Brown
49	1	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	Outagamie, Brown, Calumet
50	1	8	6	2013	2340-0010	2.7 ENE Mackville - 1.1 NNE Larrabee	Outagamie, Brown, Manitowoc
51	1	8	6	2013	0005-0010	0.5 SSE Henrysville - 1 NE Stangelville	Brown, Calumet, Kewaunee
52	0	8	18	2014	1523-1525	3.3 NE Winchester - 4.0 NNE Larsen	Winnebago

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 1: August 30, 1958

The F/EF-1 tornado was reported 6 miles southeast of Wausaukee in Marinette County around 3:26 pm CST. The tornado was 100 yards wide and travelled a mile before dissipating.

Event 2: August 28, 1959

Several funnel clouds were reported near the Outagamie County Airport by a pilot, and several other funnel clouds were noted by the Kimberly, Little Chute and Kaukauna police. The F/EF-2 tornado touched down about 3 miles north of Appleton around 2:04 pm CST. The tornado travelled approximately a mile before dissipating and had a maximum width of 35 yards.

Event 3: August 22, 1964

The F/EF-2 tornado touched down six miles west of Bancroft and travelled approximately 7 miles to the town of Grant around 3 pm CST in Portage County. The tornado had a maximum width of 300 yards.

Event 4: August 5, 1968

The F/EF-1 tornado touched down 3 miles northwest of Seymour in Outagamie County around 2 pm CST. The tornado was 150 yards wide and was on the ground for two miles before dissipating. Nine barns and farm buildings were destroyed.

Event 5: August 16, 1968

The F/EF-2 tornado touched down near Kaukauna in Outagamie County and travelled 2 miles before dissipating around 12:30 pm CST. The maximum width of the tornado was 100 yards. The Mueleman farm near Kaukauna experienced severe damage. A barn was destroyed along with many trees. His home also suffered damage as the roof was torn off and windows were knocked out.

Event 6: August 16, 1968

The F/EF-2 tornado first formed about 5 miles southeast of Hofa Park in extreme western Brown County on the Brown - Shawano County line. The tornado moved east about a mile and dissipated four miles south of Pulaski around 9:20 pm CST. The tornado reached a maximum width of 100 yards. A 40 year old dance hall on Highway 29 at the Shawano - Brown County line was destroyed. The building exploded and debris was scattered over nearby fields. The 73 year old owner was hospitalized.

Event 7: August 19, 1968

The funnel was first observed at about 4 pm CST near Breed, but remained aloft until three miles southwest of Pound in Marinette County. The F/EF-4 tornado developed 3 miles southwest of Pound around 4:10 pm CST and traveled nearly 22 miles before dissipating in Marinette. The tornado moved east about 3 miles south of Highway 53, destroying farms near Pound and again just south of Marinette. Large hail three inches in diameter fell north of the tornado track. Two elderly brothers, John and Cecil Maloney were fatally injured as their farmhouse near Pound blew apart. A third brother James, who was in bed when the winds struck was found on some bed springs in a nearby cornfield. He was hospitalized in satisfactory condition. Two more people were injured at Marinette when the tornado struck near the airport. Nearly twenty counties were included in a series of thunderstorm warnings issued by the Weather Bureau.

Event 8: August 19, 1968

The F/EF-2 tornado form about 4 miles east of Fenwood in Marathon County near County Trunk P just west of Highway 97 around 5:30 pm CST. The tornado travelled just over fourteen miles to the east before dissipating about eleven miles east of Fenwood. The maximum width of the tornado was 75 yards. Twenty-five barns mostly on the north side of County Trunk P were flattened. Damage was estimated at more than one million dollars.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 9: August 21, 1972

The F/EF-1 tornado touched down near Goodwin in Manitowoc County around 3:10 pm CST. The tornado was 50 yards wide and travelled approximately 12 miles to Two Rivers. The tornado struck the Van Koevering residence, uprooting five large trees in the yard. Tree and wire damage occurred along Highway 147 one mile south of Mishicot and near Highway 42 and near Shambeau Road near Two Rivers. The tornado moved eastward out over Lake Michigan.

Event 10: August 31, 1977

On the evening of the 31st, a devastating F/EF-3 tornado spun out a 27 mile path of destruction across Marathon County around 6:15 pm CST. The first sighting of the tornado came seven miles southwest of Fenwood. The funnel base was described as reaching tree top levels as it downed barns in the area. The tornado continued to near Marathon City where more barns were destroyed. The tornado caused extensive damage to Ginseng crops in the area. In Rib Mountain, 15 homes were demolished and 30 others were severely damaged. The storm moved into southwest Wausau damaging a mill and lumber yard. As the funnel cloud moved across the southern end of Wausau, brief touchdowns were noted at Grand Avenue and at Tenth and Manson Streets. The funnel lifted and moved eastward out of the city limits of Wausau, touching down for a final time on Linden Street. Barns and sheds were destroyed on Linden. The tornado reached a maximum width of a thousand yards. Property damage was close to two million dollars.

Event 11: August 4, 1979

The tornado (F/EF-1) struck near Manitowoc in Manitowoc County around 10 am CST. Several buildings on a farm were destroyed. There was no documentation on path length or width of the tornado.

Event 12: August 9, 1979

The F/EF-2 tornado touched down near Rockland Beach in Calumet County around 6:20 pm CST. The strong tornado only travelled about a mile and was fifty yards wide. One death was attributed to the tornado. A Rockland Beach woman died after the winds demolished the family home. She was crushed as the family's first floor fireplace fell through to the basement. The husband and three children were not hurt.

Event 13: August 9, 1979

The northeast side of Green Bay in Brown County was struck by the F/EF-1 tornado around 6:56 pm CST. There was no documentation on path length or width of the tornado.

Event 14: August 12, 1985

A large F/EF-2 tornado touched down around 6:13 pm CST six miles south of Marshfield in Wood County along highway B. The tornado travelled northeast across Highway EE and then slammed Auburndale. The tornado was on the ground for ten miles before the tornado dissipated in Auburndale around 6:30 pm CST. At its peak, the tornado was a massive 880 yards wide. Damage was estimated at $5.5 million dollars. Fifty-eight dwellings and forty farms suffered damage. The Apache Gardens subdivision and the Wishkershen Trailer Park in Auburndale received substantial damage.

Event 15: August 12, 1985

The F/EF-0 tornado touched down one mile north of Richford in Waushara County around 7:30 pm CST. The tornado was 100 yards wide and travelled a half mile before dissipating. The tornado flattened 2 barns, damaged 5 homes and leveled many trees. Several sheds in Richford were destroyed and extensive window and roof damaged occurred.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 16: August 14, 1987

Considerable damage from the F/EF-1 tornado occurred one mile west of Menasha in Winnebago County between 5:40 and 5:43 pm CST. The tornado was 100 yards wide and travelled a quarter of a mile. Most of the damage occurred at a warehouse where siding and a roof were twisted and ripped away. Two 100 square foot cement slabs were also torn from the building. Trees and power lines were downed as well.

Event 17: August 1, 1988

The F/EF-1 tornado touched one mile west of St. Germain in Vilas County around 6:52 pm CST. The tornado was 50 yards wide and travelled one mile. The tornado caused falling trees to damage cars and buildings one mile west of St. Germain. Another tornado (F/EF-0) was reported at 7:22 pm CST two miles southeast of Eagle River.

Event 18: August 1, 1988

A brief tornado (F/EF-0) occurred 3 miles south of Hazelhurst in Oneida County around 6:20 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. The tornado damaged some trees.

Event 19: August 1, 1988

A brief tornado (F/EF-0) occurred 2 miles southeast of Eagle River in Vilas County around 7:22 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile. The tornado damaged some trees.

Event 20: August 4, 1988

The F/EF-1 tornado developed one mile east of Reedsville in Manitowoc County around 2:35 pm CST. The tornado was 25 yards wide and travelled 4 miles before dissipating two miles north of Cato around 2:45 pm CST. Two barns, one shed and several trees were damaged by the tornado.

Event 21: August 29, 1992

The F/EF-3 tornado touched down east of Big Flats in Adams County around 7 pm CST. The tornado skipped along a five mile path, toppling trees and downing a 24 by 30 foot building. The killer tornado traveled a 28 mile path across Adams and Waushara Counties. The tornado was noted north of Coloma 710 pm just CST. The tornado then moved to Wautoma to just north of Redgranite and then to three miles southeast of Poy Sippi before dissipating around 7:55 pm CST. The hardest hit area was just south of Wautoma where a woman was killed when her mobile home was hurled several hundred feet into a parking lot. In addition, 30 people were injured, several critically. The tornado caused over ten million dollars in damage. All together, forty-eight homes were destroyed and ninety-five other structures sustained major damage, 289 received minor damage. 950 acres of trees were toppled by the tornadic winds.

Event 22: August 9, 1993

The F/EF-0 tornado touched down one mile north of Tripoli in Oneida County around 8:15 pm CST. The tornado was 50 yards wide and travelled three tenths of a mile. Little damaged was noted with this tornado.

Event 23: August 27, 1994

The F/EF-1 tornado formed in Hancock in Waushara County around 9:07 pm CST. The tornado was 75 yards wide and was on the ground for a mile and a half.

Event 24: August 27, 1994

The F/EF-1 tornado developed a mile and half south of Wausaukee in Marinette County around 9:41 pm CST. The tornado was 75 yards wide and was on the ground for 4 miles before dissipating three miles southeast of Wausaukee around 9:50 pm CST.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 25: August 7, 1996

The F/EF-2 tornado touched down six and a half miles north of Stratford in Marathon County around 1:45 am CST, tearing the top portion of a home off, flattened a garage, and snapped off several large trees. The tornado continued east northeast for two and a half miles and reached a maximum width of 200 yards before dissipating two and a half miles north northwest of Fenwood around 1:49 am CST. As the storm moved east, there was damage to a storage shed and thirty trees on a farm. A dozen of Ginseng shelters were thrown about. The tornado was not on the ground for the entire path.

Event 26: August 7, 1996

A brief F/EF-1 tornado touched down one mile north of Stratford in Marathon County around 1:46 am CST. The tornado was 100 yards wide and only travelled two tenths of a mile before dissipating 1.2 miles northeast of Stratford round 1:47 am CST. The tornado snapped off numerous large trees, some of which fell on the top of homes. In addition: a barn was flattened, a semi-trailer was flipped over and a car moved 75 feet.

Event 27: August 7, 1996

The F/EF-1 tornado touched down four tenths of a mile southwest of Shantytown in Manitowoc County around 2:19 am CST. The tornado was 100 yards wide and travelled nearly a half mile to Shantytown before dissipating around 2:21 am CST. The tornado tore a 100 yard swath through a cornfield. In Shantytown, the tornado tore the roof and garage off a home. Pieces of the roof were found one-quarter of a mile away from the home.

Event 28: August 23, 1998

A brief F/EF-0 tornado touched down near Menasha in Winnebago Count at 3:22 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating. No damage was noted on the monthly storm report.

Event 29: August 23, 1998

Article written by National Weather Service Green Bay Staff

The F/EF-3 tornado struck a rural section of central Door County in Northeast Wisconsin during the evening of August 23, 1998. The multiple-vortex tornado was on the ground for nearly 14 minutes, and carved a path of damage 5.1 miles long and 1/4 to over 1/2 mile wide at times. Damage was estimated at nearly $7 million. The tornado, which moved off the waters of Green Bay, moved on shore three miles southwest of Egg Harbor at 5:30 pm CST, near Horseshoe Bay. Thousands of trees were snapped or uprooted as the tornado moved across the heavily wooded area in Murphy Park. The width of the damage path just after it came on shore was nearly one-half mile! The tornado then crossed Highway 42 at about 5:34 pm CST, severely damaging several houses and businesses. Damage in this area was rated F2 on the Fujita Scale of F0 to F5. About three minutes later the tornado ripped a two-story farm house off its foundation, dropping it 20 yards away. Based on the house's construction, damage in this area was rated F3. Nearby, a campground was hit, causing considerable damage there to trees and campers. Amazingly, only two people were injured. The tornado weakened shortly thereafter, lifting off the ground three miles west-northwest of Jacksonport at around 5:44 pm CST.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

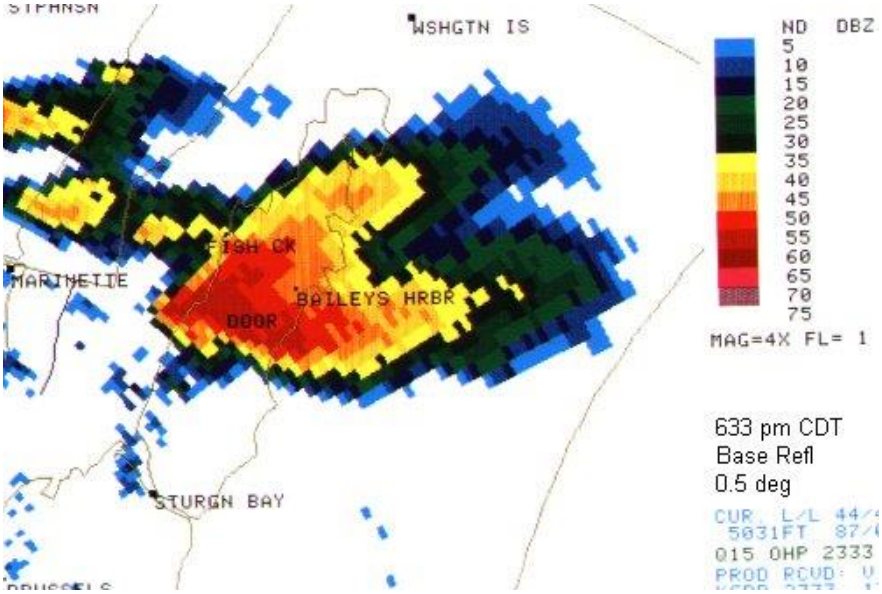
AUGUST 23, 1998 DOOR COUNTY F-3 TORNADO

This photo was taken about the time the super cell thunderstorm was entering the Bay of Green Bay, off the Menominee, Michigan coast around 5:05 pm CST. The picture was taken 75 miles south of the storm. (Photograph © 1998 Michael Schardt)

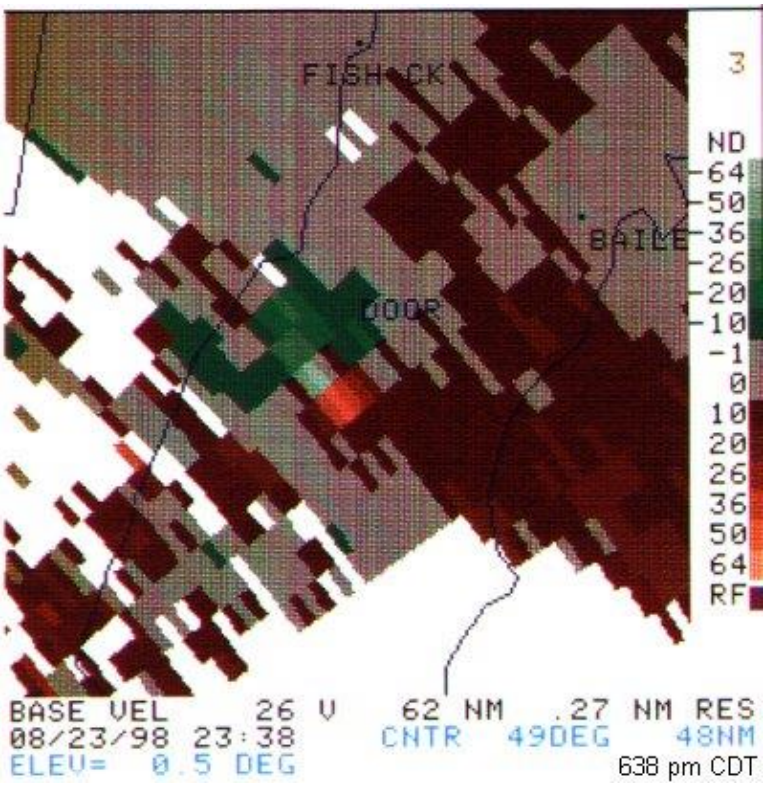
This picture was taken around 5:15 pm CST, about the Time the supercell was producing a waterspout on the bay. The picture was taken 25 miles south of the storm. (Photograph © 1998 Ray Fulwiler)

These photos were taken by Tom Janssen II at Murphy Park, which was hit by the tornado. The two on the left show the waterspout just after if developed, around 5:15 pm CST. The third picture was taken a little after 5:20 pm CST. The tornado was off the Door county shore over the Bay of Green Bay.

These pictures were taken by Gary Gridley, from Egg Harbor. The photo on the left was taken at 5:25 pm CST. The picture on the right was taken around 5:30 pm CST, as the tornado was coming onshore at Murphy Park.



This image shows the supercell thunderstorm as viewed by the radar. The image was taken at 633 pm CDT.



The second image shows the tornado vortex signature 9 minutes later (638 pm CDT) near the time it was producing F3 damage. At this point, the radar measured 94 knot (108 mph) winds (ground relative) at about 4100 feet above the ground.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS Door County Tornado

Damage

Here is a panoramic view looking east on Hwy 42. The damage width (which goes off the picture on both sides) was over ¼ mile wide as it passed over Hwy 42. (Photograph by Jeff Last)

This building (left picture) was on the south side of the tornado as it passed over Hwy 42 (Photograph by Jill Last, NWS Green Bay). There used to be a farm house and barn here (picture on right).

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 30: August 3, 1999

The F/EF-0 tornado briefly touched down 3 miles west of Pittsville in Wood County at 5:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado knocked down trees 3 miles west of Pittsville.

Event 31: August 4, 1999

A waterspout (F/EF-0) was reported by a vessel on the lake 21 miles east southeast of Sturgeon Bay in Door County at 4:05 pm CST. The crew of the vessel observed two other waterspouts about 21 miles east southeast of Sturgeon Bay. The U.S. Coast Guard relayed the report they received from the vessel on the lake.

Event 32: August 14, 2000

A brief F/EF-0 tornado touched down at Lake Tomahawk in Oneida County at 7:10 pm CST. The tornado was 25 yards wide and was on the ground a tenth of a mile. The tornado damaged trees in the Lake Tomahawk area.

Event 33: August 3, 2003

The F/EF-1 tornado touched down three tenths of a mile west of Potter in Calumet County around 1:59 pm CST. The tornado was 75 yards wide and was on the ground for nearly a half mile before dissipating two tenths of a mile east northeast of Potter around 2:03 pm CST. The tornado damaged several houses, outbuildings and trees around Potter.

Event 34: August 18, 2005

The F/EF-0 tornado touched down 6 miles west southwest of Wautoma in Waushara County at 5:32 pm CST. The tornado was 80 yards wide and was on the ground for two miles before dissipating 3.7 miles south of Wautoma at 5:36 pm CST. The tornado snapped off or uprooted many trees and caused damage to a few buildings and some farm equipment. A tree fell onto a large pole building, causing major damage to one of its sides. A porch at a residence was destroyed by a fallen tree limb; while a portion of the metal roof of a barn was torn from it and thrown about 200 feet. An irrigation system was also damaged.

Event 35: August 18, 2005

The F/EF-0 tornado touched down 4 miles south southwest of New London in Waupaca County at 6:38 pm CST. The tornado was 40 yards wide and was on the ground for 1.2 miles before dissipating 3.4 miles southwest of New London at 6:41 pm CST. The tornado snapped large trees and a few buildings in its path. The tornado shifted a large barn, destroyed a small metal shed and threw it about a quarter of a mile. An outbuilding was overturned and thrown 30 to 40 feet into a stand of trees.

Event 36: August 18, 2005

The F/EF-0 tornado touched down four and a half miles west of Neenah in Winnebago County at 6:40 pm CST. The tornado was 50 yards wide and was on the ground for four miles before dissipating 2.6 miles northwest of Neenah at 6:48 pm CST. The tornado downed trees, stripping some siding from a home and destroying a corn crib.

Event 37: August 18, 2005

The F/EF-1 tornado developed 6 miles east northeast of Wrightstown in Brown County around 7:45 pm CST. The tornado was 100 yards wide and travelled one mile before dissipating 6.8 miles east northeast of Wrightstown at 7:49 pm CST. About 75 trees were downed or snapped and several structures along its path were destroyed. Two wooden garages were destroyed and debris scattered for several hundred feet. The walls of a house that were under construction were blown down. A part of a steel roof of a commercial building was damaged. A heavy wooden bench was picked up from the front porch and thrown several hundred feet away behind the house. The tornado was part of a record tornado outbreak in Wisconsin.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 38: August 18, 2005

The F/EF-1 tornado developed six and a half miles south southwest of Manitowoc in Manitowoc County at 8:35 pm CST. The tornado was 100 yards wide and travelled one and a half miles before dissipating 5.7 miles south of Manitowoc at 8:39 pm CST. The tornado damaged a farm, snapped or uprooted around 50 large trees while several hay wagons and trailers were overturned. A concrete silo was destroyed and another damaged. The roof of a barn sustained extensive damage. Part of the barn and silo were found in trees a third of a mile away. The tornado was part of a record tornado outbreak in Wisconsin.

Event 39: August 20, 2010

The F/EF-1 tornado touched down 2 miles southeast of Greenleaf in Brown County at 3:20 pm CST. The tornado travelled just over 1.25 miles and was 75 yards wide before dissipating 2.7 ESE of Greenleaf at 3:22 pm CST. When the tornado initially touched down, several trees were snapped and uprooted. The tornado then destroyed a relatively new barn constructed of metal wall panels and roof. Pieces of the roof and wall were strewn over 100 yards from the site. About 50 to 100 yards on either side of the damaged barn small outbuildings and trees were untouched. The tornado continued east-northeast to another farm and heavily damaged a metal building which contained hay bales. Large parts of the metal roof were thrown over 200 yards. Numerous trees along the patch were snapped or uprooted. Estimated maximum winds were 90 mph. The tornado dissipated just north of the Holland State Wildlife Area.

Event 40: August 19, 2011

The F/EF-1 tornado quickly developed northwest of the city of Wausaukee during the late afternoon and moved southeast for nearly eight miles before dissipating. The twister touched down near Long Lake, snapping or uprooting hundreds of trees as it moved towards Wausaukee. A mobile home near Long Lake was heavily damaged by fallen trees, but the occupants escaped without injury. As the tornado moved into Wausaukee, it leveled another mobile home killing a 46 year old male. Two additional buildings on the property sustained damage including a house that lost part of its roof. Two semi-trailers on the property were blown over. The tornado continued southeast, damaging a baseball field and hundreds of additional trees on the east side of Wausaukee. The tornado reached the Menominee River and briefly crossed into Upper Michigan before moving back into Wisconsin and dissipating near Highway 180. One tree fell on a home near Deer Lane Road.

Event 41: August 23, 2011

The F/EF-0 tornado was witnessed by local law enforcement. The tornado touched down for less than 10 seconds in a corn field. A couple of stalks of corn were thrown in the air, but no damage was reported. The F/EF-0 tornado was estimated to have winds around 60 mph.

Event 42: August 23, 2011

The F/EF-0 tornado touched down near Briarton shortly before 6 pm CST along Shady Road in Shawano County just north of the Outagamie County line. Tall grass and a hay field were flattened in a cyclonic pattern. In addition, about a dozen trees had snapped limbed. Peak winds were estimated at 65 to 70 mph. The average path width was 50 yards.

Event 43: August 23, 2011

The F/EF-0 tornado touched down less than a mile northeast of Sherwood at 8:05 pm CST. The F/EF-0 tornado toppled two trees that damaged the roof of a house and snapped or uprooted six pine trees near Highway M. The tornado continued east-southeast moving over a swamp. Swirl marks were seen in the thick swamp grass. The tornado then hit a farm on Kesler Road. Two old barns were heavily damaged. Peak winds were estimated at 85 mph with an average width of 75 yards.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 44: August 9, 2012

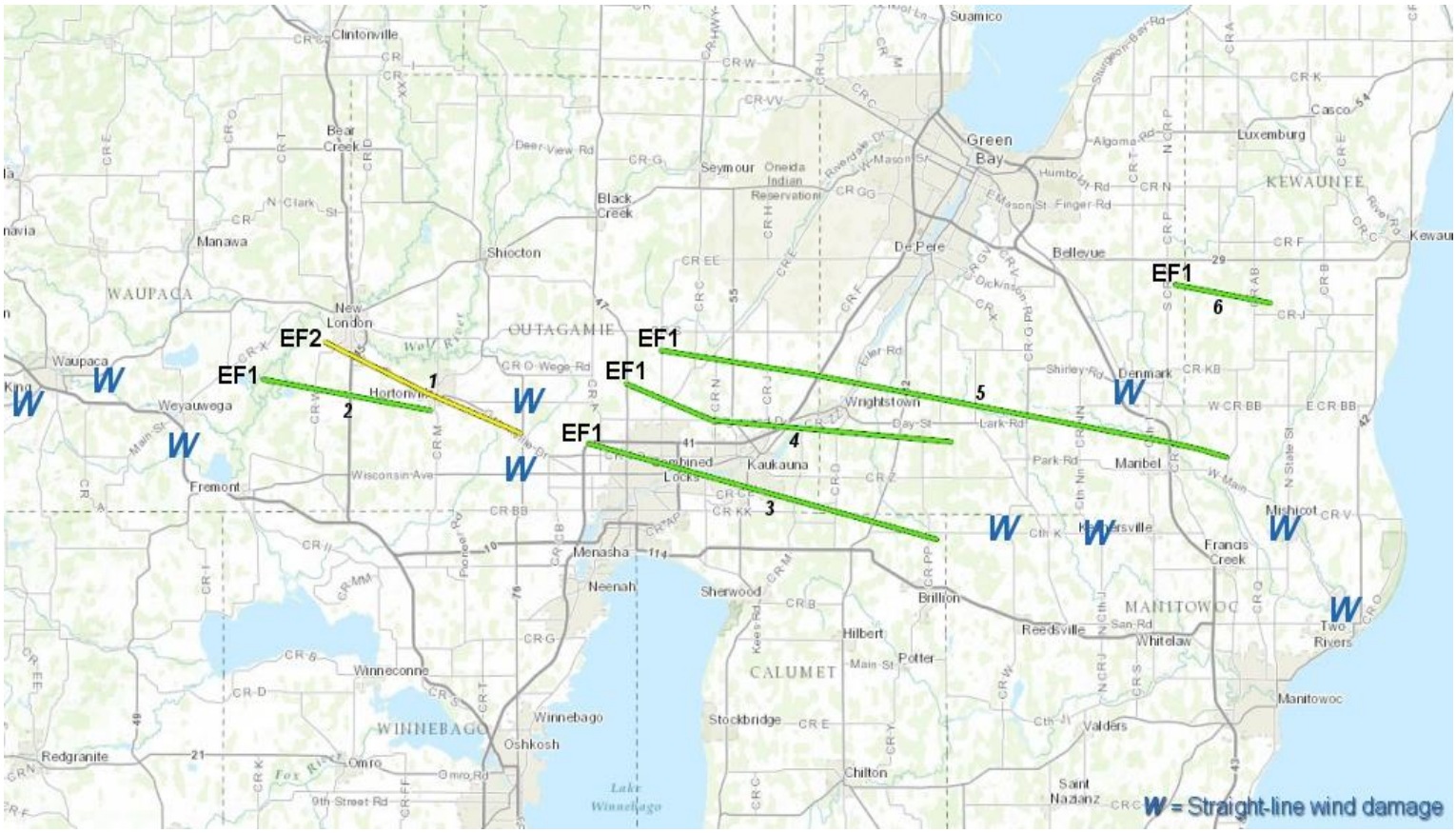
The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:10 pm and 12:20 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 45: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:25 pm and 12:35 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 46-51: August 6-7, 2013

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 46: August 6, 2013

The first of six late night tornadoes to strike Northeast Wisconsin on this date, The (F/EF-0) tornado touched down four miles north northeast of Partridge Lake in Waupaca County at 11:22 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado hit a campground, blowing several camper trailers over. Two people sustained minor injuries at the campground. Over one hundred trees were snapped or uprooted along the path in Waupaca County. The tornado moved into Outagamie County about 3.1 miles south of New London at 11:26 am CST. The tornado damaged or uprooted trees as it moved across Outagamie County. Based on radar analysis, the circulation of this tornado may have merged with the other tornado that was occurring concurrently in the county near Hortonville. The tornado travelled 9.8 miles before dissipating eight tenths of a mile west southwest of Hortonville at 11:30 pm CST. The maximum width of the tornado in Outagamie and Waupaca Counties was 125 yards, with an average width of 75 yards in both counties.

Event 47: August 6, 2013

The second of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-2) tornado touched down 1.2 miles west of New London in Waupaca County at 11:24 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado struck a church (figure 1 below), causing severe damage. A large portion of the roof collapsed, causing failure to two walls. A wall on the new portion of the church was pushed in. In addition, hundreds of trees were snapped or uprooted. Several homes along the path sustained damage, mainly from fallen trees. The average path width in Waupaca County was 100 yards with a maximum width of 175 yards. The tornado now an EF-1 entered Outagamie County at 11:25 pm CST a little over a mile southeast of New London, damaging or uprooting hundreds of trees along the path. Several homes in a two block area of Hortonville were damaged (roof and siding) by falling trees. The average path width was 100 yards with a maximum width of 175 in Outagamie County. The tornado traveled 13.1 miles before dissipating four tenths of a mile west southwest of Greenville.

Figure 1: Church (southeast New London damaged by a tornado. Peak winds were estimated at 115 to 120 mph.

Event 48: August 6, 2013

The third of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down four tenths of a mile west of Mackville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado caused a barn to collapse, and heavily damaged a boat showroom in Little Chute. Another barn lost part of its roof northwest of Kaukauna. Damage to trees was sporadic as it moved through Outagamie County. The maximum width of the tornado in Outagamie County 175 yards, with an average width of one hundred yards. The tornado moved into southern Brown County, about two miles southwest of Wrightstown around 11:48 pm CST. In Brown County, the tornado uprooted or snapped dozens of trees as it moved east, just south of Greenleaf. A house lost an attached garage when winds blew in the garage door and caused a large portion of the garage roof to lift off. The walls of a nearby building collapsed. The maximum width of the tornado in Brown County was 175 yards and average with was 125 yards. The tornado travelled 19.2 miles before dissipating 2.7 miles west of Morrison at 23:53 pm CST.

Event 49: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.

Event 50: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the county. The tornado in Manitowoc County has a maximum width of 250 yards and average width of 125 yards. The tornado travelled thirty-three miles across three counties before dissipating.

TORNADO REFERENCE GUIDE BY MONTH - AUGUST

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 51: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

Event 52: August 18, 2014

A tornado developed around 3:23 pm CST, causing minor damage as it moved east near Shady Lane a little over three miles northeast of Winchester in northern Winnebago County. The weak tornado EF-0 caused two single wood power poles to partially lean in saturated soil and knocked over a few trees and limbs. Swirl marks could be seen in a field of tall grass. The tornado was not in contact with the ground during the entire path length (a little over two miles) before ending around 3:25 pm CST. The maximum width of the tornado was 50 yards with estimated winds of 65 to 75 mph.

TORNADO REFERENCE GUIDE BY MONTH - SEPTEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	3	9	18	1950	1430	2 N Waupaca - Weyauwega	Waupaca
2	4	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage, Waupaca
3	2	9	3	1961	0010	Fenwood	Marathon
4	1	9	3	1961	0100	Athens	Marathon
5	1	9	3	1961	1700	12 W Merrill	Lincoln
6	1	9	19	1963	1800	Laona	Forest
7	3	9	28	1971	1400-1605	23 NE Eau Claire - Athens	Eau Claire, Clark, Marathon
8	3	9	28	1971	1600-1720	3 NE Brokaw - Middle Inlet	Marathon, Langlade, Oconto, Marinette
9	2	9	28	1971	1415-1605	19 SW Merrill - Merrill	Lincoln
10	2	9	16	1972	1605	4 NW Wabeno - 2 N McAllister	Forest-Marinette
11	1	9	20	1980	2315	Mattoon	Shawano
12	2	9	24	1984	1650	13.5 WSW Wausau - Wausau	Marathon
13	0	9	19	1988	1605	1 E Plainfield	Waushara
14	0	9	19	1988	1637	1 W Edgar	Marathon
15	0	9	14	1991	1800	2 W Green Valley	Shawano
16	0	9	9	1999	1455	3 N Sister Bay (waterspout)	Door
17	0	9	19	1999	1646-1710	8 SE Sturgeon Bay (waterspout)	Door
18	0	9	6	2001	1809-1814	0.3 SSW Pelican Lake to 1.3 NNE Pelican Lake	Oneida
19	0	9	2	2002	1704-1706	5.2 W - 5 W Athens	Marathon
20	1	9	2	2002	1735-1743	6 NW Wausau - 4 NE Wausau	Marathon
21	1	9	30	2002	1810-1811	5.5 SSE - 5.5 SE Spread Eagle	Florence
22	2	9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	Lincoln
23	0	9	13	2005	1709-1712	De Pere to Allouez	Brown
24	0	9	29	2006	0920-0955	Chambers Is. - 12 SE Cedar River (waterspout)	Door
25	0	9	18	2012	1701	3 W Sister Bay	Door

Event 1: September 18, 1950

The F/EF-3 tornado touched down in Waupaca County 2 miles north of Waupaca around 2:30 pm CST. The tornado travelled to Weyauwega before dissipating. Storm data was not available at this time and I could not find any additional newspaper articles on this tornado event.

Event 2: September 26, 1951

The F/EF-4 tornado touched down 9 miles south southwest of Amherst in Portage County around 3:45 pm CST. The tornado then cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado traveled 22.3 miles and reached a maximum width of 400 yards before dissipating 2 miles southwest of Bear Creek in Waupaca County around 408 pm CST. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

TORNADO REFERENCE GUIDE BY MONTH - SEPTEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 3: September 3, 1961

The F/EF-2 tornado touched down near Fenwood in Marathon County around 12:10 am CST and travelled about 2 miles. The tornado was 35 yards wide. Damage was confined to farm buildings and crops in rural western Marathon County.

Event 4: September 3, 1961

The F/EF-1 tornado touched down near Athens in Marathon County around 1 am CST. The tornado was 35 yards wide and was on the ground for 2 miles.

Event 5: September 3, 1961

The F/EF-1 tornado touched down 12 miles west of Merrill in Lincoln County around 5 pm CST. The tornado was 50 yards wide and was on the ground for a mile.

Event 6: September 19, 1963

The F/EF-1 tornado tore through the village of Laona in Forest County around 6 pm CST. The tornado was less than 50 yards wide and travelled one mile before dissipating.

Event 7: September 28, 1971

A cold front moving through the state triggered scattered thunderstorms across the state. On this date, two long tracked F/EF-3 tornadoes were noted from near Stanley in western Wisconsin to Oconto County. The first tornado touched down 23 miles northeast of Eau Claire just south of Boyd and Stanley in Chippewa County around 2 pm CST. The tornado continued just south of Owen, north of Curtiss and south of Dorchester in Clark County. The tornado then moved into Marathon County south of Athens then weakened over Hamburg before finally dissipating just north of Merrill in Lincoln County around 4:05 pm CST. The tornado reached a maximum width of 300 yards and travelled 75 miles before dissipating. Damage was estimated near two million dollars.

Event 8: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 9: September 28, 1971

The tornado was first sighted across portions of Clark and Taylor Counties. The tornado moved into Lincoln County 19 miles west southwest of Merrill around 2:15 pm CST. The tornado travelled 19 miles and reached a maximum width of 300 yards before dissipating near Merrill. Several farms were damaged or destroyed by the tornado across Clark, Taylor, and Lincoln counties. The storm summary does not indicate where the heaviest damage occurred.

Event 10: September 16, 1972

The F/EF-2 tornado formed 4 miles northwest of Wabeno in Forest County around 4:05 pm CST. The tornado tracked south of Athelstane, north of Wausaukee and into upper Michigan. The track reentered Wisconsin about 2 miles north of McAllister and cross over the Wisconsin Public Service Corporation Grand Rapids Power Dam. The tornado reentered upper Michigan 3 miles southwest of Ingalls around 5:15 pm CST moving across Highway 41 about two miles north of Wallace. The final path length of the tornado was 53 miles with the tornado reaching a maximum width of 200 yards. Several barns were flattened in the Wabeno area, otherwise damage was mainly to woods and overhead wires.

TORNADO REFERENCE GUIDE BY MONTH - SEPTEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 11: September 20, 1980

The Mattoon area of Shawano County was struck by the F/EF-1 tornado around 11:15 pm CST. The tornado was 35 yards wide and travelled a half mile before dissipating. Several buildings were damaged by the tornado.

Event 12: September 24, 1984

The F/EF-2 tornado touched down thirteen and a half miles west southwest of Wausau in Marathon County around 4:50 pm CST, or one mile south of Highway P and one mile west of Highway 107. The tornado was 150 yards wide and travelled 12 miles before lifting on the east side of the Wisconsin River near Wausau. The tornado caused $2.2 million dollars in damage in the townships of Emmett, Mosinee, Marathon, and Rib Mountain. Three homes were destroyed, eight sustained major damage and several barns and sheds were leveled. Numerous trees were reported down. The storm was accompanied by baseball size hail one mile northeast of Rothschild.

Event 13: September 19, 1988

A brief tornado (F/EF-0) developed one mile east of Plainfield in Waushara County at 4:05 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 14: September 19, 1988

A brief tornado (F/EF-0) developed one mile west of Edgar in Marathon County at 4:37 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 15: September 14, 1991

The F/EF-0 tornado touched down briefly 2 miles west of Green Valley in Shawano County around 6:00 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Damage was confined to some trees and a pair of sheds.

Event 16: September 9, 1999

A waterspout (F/EF-0) was reported 3 miles north of Sister Bay in Door County at 2:55 pm CST.

Event 17: September 19, 1999

The crew of a ship off the Door County shoreline, 8 miles southeast of Sturgeon Bay, spotted a waterspout (F/EF-0) at 4:46 pm CST and then dissipated around 5:10 pm CST. There may have been other waterspouts in the vicinity of the one reported.

Event 18: September 6, 2001

The F/EF-0 tornado touched down three tenths of a mile south southwest of Pelican Lake in Oneida County around 6:09 pm CST. The tornado was 30 yards wide and was on the ground for a half mile before dissipating 1.3 miles north northeast of Pelican Lake around 6:14 pm CST. The tornado caused minor damage to the Pelican Lake Supper Club, blew the roof off a nearby house and destroyed a garage. The tornado also caused minor damage to the Pelican Lake Town Hall and uprooted several trees.

Event 19: September 2, 2002

The F/EF-0 tornado touched down 5.2 miles west of Athens in Marathon County at 5:04 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile before dissipating at 5:06 pm CST. The tornado caused minimal damage.

TORNADO REFERENCE GUIDE BY MONTH - SEPTEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

Event 20: September 2, 2002

The F/EF-1 tornado developed 6 miles northwest of Wausau in Marathon County around 5:35 pm CST. The tornado was 200 yards wide and was on the ground for five miles before dissipating 4 miles northeast of Wausau around 5:43 pm CST. The tornado destroyed two barns, a garage and a shed. It also snapped hundreds of trees, heavily damaged 6 homes and caused minor damage to 25 others. At least two vehicles traveling on Highway 51 were blown off the road. A trailer being towed by one of the vehicles was blown over and a large road sign hit the vehicle. The driver was injured and transported to the hospital.

Event 21: September 30, 2002

The F/EF-1 tornado touched down in southeast Florence County, five and a half miles south southeast of Spread Eagle around 6:10 pm CST. The tornado was 400 yards wide and travelled seven tenths of a mile before dissipating five and a half miles southeast of Spread Eagle around 6:11 pm CST. The tornado destroyed a pole barn, a garage that was under construction and 6 to 10 outbuildings. 150 to 250 trees and power lines were downed, causing numerous power outages. The tornado tracked east-northeast across the Menominee River into upper Michigan where it continued to do damage.

Event 22: September 30, 2002

The F/EF-2 tornado developed 8 miles west of Tomahawk in Lincoln County around 6:30 pm CST. The tornado travelled approximately 3 miles to the northeast and reached a maximum width of 250 yards before dissipating four and a half miles northwest of Tomahawk around 6:35 pm CST. The tornado did significant damage, uprooting or snapping off thousands of trees along its path. A house in the path of the tornado suffered major structural damage, a camping trailer was thrown 300 feet, and a car was thrown into a tree coming to rest at least fifteen feet above the ground. Two barns were also destroyed.

Event 23: September 13, 2005

The F/EF-0 tornado touched down in De Pere in Brown County at 5:09 pm CST. The tornado was 50 yards wide and the brief touchdowns lasted for 1.9 miles before the tornado dissipated in Allouez just north of Heritage Hill State Park at 5:12 pm CST. The tornado's occasional brief touchdowns topped numerous trees. Some of the trees caused damage to buildings and vehicles when they fell. The tornado caused little direct structural damage to any buildings.

Event 24: September 29, 2006

A waterspout (F/EF-0) was reported off Door County, from Chambers Island to 12 miles southeast of Cedar River, Michigan around 9:20 am CST. The last report of the waterspout was around 9:55 am CST.

Event 25: September 18, 2012

A brief (F/EF-0) waterspout was observed on the waters of the Bay of Green Bay three miles west of Sister Bay around 5:01 pm CST. The time of the event was estimated based on the time of 911 calls. A strong upper level trough and cold air aloft produced conditions favorable for waterspout formation on the waters of Green Bay.

TORNADO REFERENCE GUIDE BY MONTH - OCTOBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	1	10	8	1992	1648	5 NE Wild Rose	Waushara
2	1	10	8	1992	1712	4 NE Blaine	Portage

Event 1: October 8, 1992

The F/EF-1 tornado touched down in the Gilbert Lakes area about 5 miles northeast of Wild Rose in Waushara County around 4:48 pm CST. The tornado was 400 yards wide and was on the ground for a mile. Fifteen homes and buildings were damaged. 500 oak and pine trees were also damaged.

Event 2: October 8, 1992

The F/EF-1 tornado touched down about 4 miles northeast of Blaine in Portage County and moved through the township of Lanark around 5:12 pm CST. The tornado was 100 yards wide and was on the ground for 2 miles. Ten homes and buildings were damaged, a barn and garage destroyed and numerous trees were knocked down.

TORNADO REFERENCE GUIDE BY MONTH - NOVEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	2	11	15	1960	1425	2 NE Chili to near Rib Mountain	Marathon

Event 1: November 15, 1960

The F/EF-2 tornado developed near Chili in southeast Clark County. The tornado travelled for 36 miles into central Marathon County around 2:25 pm CST where the tornado dissipated near Rib Mountain. The tornado reached a maximum width of 100 yards. Main damage with the storm occurred near Chili and near the Town of Rib Mountain.

TORNADO REFERENCE GUIDE BY MONTH - DECEMBER

GREEN BAY FORECAST AREA TORNADOES / WATERSPOUTS

EVENT	F / EF	DATE			TIME		TOR IN GRB SERVICE AREA
#	RANK	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	1	12	1	1970	0700	Hull	Portage
2	2	12	1	1970	0900	12 SE Marshfield	Wood
3	2	12	1	1970	0945-1030	4 NW Iola - Pella	Shawano, Langlade, Oconto
4	3	12	1	1970	1010-1045	near Medina - Rose Lawn	Outagamie, Shawano

Event 1: December 1, 1970

A rare tornado event occurred across north central and northeast Wisconsin on this date. In all, there were four tornadoes on this date, including an F/EF-3. What made this event even more unusual was the time of day with all four tornadoes reported between 7 am and 10:45 am in the morning. The F/EF-1 tornado touched down on the Richard Rutta farm in the town of Hall north of Stevens Point in Portage County. The tornado was 200 yards wide and travelled nearly 3 miles before dissipating.

Event 2: December 1, 1970

Four rare December tornadoes were reported on this date across north-central and northeast Wisconsin. The F/EF-2 tornado touched down in Wood County 12 miles southeast of Marshfield or two miles southeast of Arpin on the Fred Cahler farm around 9 am CST. The tornado travelled 2 miles while reaching a maximum width of 200 yards before dissipating. Several farm buildings were destroyed or damaged on the Fred Cahler farm. The tornadoes on this day are on the only December tornadoes recorded in the NWS Green Bay Service area.

Event 3: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola in Waupaca County. The tornado moved east for 28 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 4: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina in Outagamie County. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards wide and dissipated around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	7	11	1957	1345	4 SW Denmark	1	-9999	-9999
2	5	10	1959	2050-2055	Green Bay	2	33	4.0
3	5	28	1959	1530	6 SW De Pere	0	-9999	-9999
4	5	28	1959	1538	1 SW Greenleaf	1	-9999	-9999
5	6	10	1959	1320	De Pere	1	17	1.0
6	6	23	1962	1630-1635	2 W Champion	1	33	3.0
7	5	8	1964	1830-1906	Winneconne-Wrightstown	2	100	35.0
8	5	30	1964	1328	Green Bay - east side	0	33	1.0
9	8	16	1968	2120	4 S Pulaski	2	100	1.0
10	6	26	1969	1115-1130	Black Creek - 2 NE Pulaski	2	100	15.3
11	4	22	1970	2040	Ashwaubenon to Green Bay - north side	2	800	4.0
12	4	22	1970	2100	De Pere to Green Bay	2	800	7.0
13	4	22	1970	2110	2 NE Poland	1	500	7.0
14	5	21	1970	2010	Green Bay - north side	0	33	2.0
15	7	30	1970	1205	4 W Suamico	1	33	1.0
16	7	30	1977	2245	0.5 N Forest Junction - Denmark	1	100	12.0
17	8	9	1979	1856	Green Bay - northeast	1	-9999	-9999
18	5	16	1992	1920-1930	2 SW Wrightstown	1	100	1.0
19	6	17	1992	1255	2 NE Denmark	0	23	0.1
20	6	23	2004	2027	Green Bay - northwest	0	10	0.1
21	8	18	2005	1945-1949	6 ENE - 6.8 ENE Wrightstown	1	100	1.0
22	9	13	2005	1709-1712	De Pere to Allouez	0	50	1.9
23	8	20	2010	1520-1522	2 SE - 2.7 ESE Greenleaf	1	75	1.3
24	4	10	2011	1953-1955	1.2 NNE Askeaton – 1.4 S Greenleaf	1	75	1.2
25	8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	1	175	19.2
26	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	1	150	20.7
27	8	6	2013	2340-0010	2.7 ENE Mackville - 1.1 NNE Larrabee	0	250	33.1
28	8	7	2013	0005-0010	0.5 SSE Henrysville - 1 NE Stangelville	1	100	5.6
29	6	15	2015	1409-1410	1.5 NNW Glenmore - 1.4 NNW Glenmore	0	25	0.4

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

Event 1: July 11, 1957

The F/EF-1 tornado touched down 4 miles southwest of Denmark around 1:45 pm CST. There was no documentation on the path width or distance travelled.

Event 2: May 10, 1959

The F/EF-2 tornado touched down in Ashwaubenon around 8:50 pm CST and travelled northeast for approximately four miles into Preble and the city of Green Bay before dissipating at 8:55 pm CST. The maximum diameter of the tornado was less than 50 yards wide. One of the most severely damaged buildings in the Sunday night tornado was a year old home moved nearly off its foundation in Ashwaubenon. Five members of the Julius Alberts family were inside the house when the tornado hit, escaped injury. The garage disappeared from the neighborhood and the car inside was twisted around and dumped in a field behind the house. Six homes were demolished and at least 50 others suffered heavy damage. Three injuries were noted with the tornado.

Event 3: May 28, 1959

The F/EF-0 tornado touched down 6 miles southwest of De Pere around 3:30 pm CST.

Event 4: May 28, 1959

The F/EF-1 tornado was spotted one mile southwest of Greenleaf around 3:38 pm CST.

Event 5: June 10, 1959

The F/EF-1 tornado touched down near De Pere around 1:20 pm CST. The tornado travelled about a mile and was less than twenty yards wide.

Event 6: June 23, 1962

The F/EF-1 tornado touched down 2 miles west of Champion in eastern Brown County around 4:30 pm CST. According to the local storm report for June of 1962, the tornado became or originated as a waterspout near Point Sauble as the storm was picking up water at times. The tornado/waterspout had a maximum width of less than 50 yards and travelled 3 miles before dissipating at 4:35 pm CST.

Event 7: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 8: May 30, 1964

The F/EF-0 tornado momentarily touched down in a field northeast of Bellevue around 1:28 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 9: August 16, 1968

The F/EF-2 tornado first formed about 5 miles southeast of Hofa Park in extreme western Brown County on the Brown - Shawano County line. The tornado moved east about a mile and dissipated four miles south of Pulaski around 9:20 pm CST. The tornado reached a maximum width of 100 yards. A 40 year old dance hall on Highway 29 at the Shawano - Brown County line was destroyed. The building exploded and debris was scattered over nearby fields. The 73 year old owner was hospitalized.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

Event 10: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado hit the far western portion of Brown County near Pulaski. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 11: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 8:40 pm CST in Ashwaubenon and moved northeast about four miles to the north side of Green Bay. Maximum width of the tornado was 800 yards. Much of the damage was concentrated in the Lambeau Field area. Among the most seriously damaged businesses were the Midway Motor Lodge motel and the nearby Forum Supper Club as well as property at Nanco Corporation. There were reports of damage to tunnels connecting the Brown County Arena to an annex. Several cars in the area parking lot were damaged by flying debris. Roofs of a number of houses were damaged and garages and barns were reported destroyed. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 12: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST in De Pere and travelled northeast for 7 miles through Allouez and then into the southeast side of Green Bay. The maximum width of the tornado was 800 yards. A church steeple was toppled in De Pere. Damage was reported at a lumber yard and canning company at Baird and Main Streets in Green Bay. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 13: April 22, 1970

The F/EF-2 tornado developed 2 miles northeast of Poland in extreme eastern Brown County around 9:10 pm CST. The tornado was 500 yards wide and travelled just over 7 miles to near Luxemburg in Kewaunee County before dissipating. Several farms were damaged and leveled the Kewaunee County Fair Grandstand at Luxemburg.

Event 14: May 21, 1970:

An airplane pilot reported the F/EF-0 tornado just northeast of Green Bay along the shores of the bay of Green Bay around 8:10 pm CST. The tornado became a waterspout about four miles northeast of Green Bay. The tornado/waterspout was less than 50 yards wide and was on the ground for about two miles.

Event 15: July 30, 1970

A brief tornado touchdown (F/EF-1) occurred 4 miles west of Suamico. The tornado was less than 50 yards wide and travelled a mile before dissipating. According to the local storm report, the tornado struck in open country.

Event 16: July 30, 1977

The F/EF-1 tornado initially developed a half mile west of Forest Junction in Calumet County around 10:45 pm CST, destroying a rural farm including a large barn, milk house and several small sheds. The tornado was 100 yards and travelled twelve miles before dissipating in Denmark. In Denmark, a roof of an apartment building was blown off, a couple of garages were destroyed and some farm machinery was toppled.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

Event 17: August 9, 1979

The northeast side of Green Bay was struck by the F/EF-1 tornado around 6:56 pm CST. There was no documentation on path length or width of the tornado.

Event 18: May 16: 1992

The F/EF-1 tornado formed near Lamers and Clancy Roads near Kaukauna in Outagamie County around 7:20 pm CST. The tornado was 100 yards wide and travelled several miles into extreme southwest Brown County where it dissipated 2 miles southwest of Wrightstown around 7:30 pm CST. Numerous trees were down, some of which landed on houses.

Event 19: June 17, 1992

The F/EF-0 tornado briefly touched down in an open field 2 miles northeast of Denmark around 12:55 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile.

Event 20: June 23, 2004

A brief F/EF-0 tornado touched down on the northwest side of Green Bay at 8:27 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile. The tornado caused some tree damage.

Event 21: August 18, 2005

The F/EF-1 tornado developed 6 miles east northeast of Wrightstown around 7:45 pm CST. The tornado was 100 yards wide and travelled one mile before dissipating 6.8 miles east northeast of Wrightstown at 7:49 pm CST. About 75 trees were downed or snapped and several structures along its path were destroyed. Two wooden garages were destroyed and debris scattered for several hundred feet. The walls of a house that were under construction were blown down. A part of a steel roof of a commercial building was damaged. A heavy wooden bench was picked up from the front porch and thrown several hundred feet away behind the house. The tornado was part of a record tornado outbreak in Wisconsin.

Event 22: September 13, 2005

The F/EF-0 tornado touched down in De Pere around 5:09 pm CST. The tornado was 50 yards wide and the brief touchdowns lasted for 1.9 miles before the tornado dissipated in Allouez just north of Heritage Hill State Park at 5:12 pm CST. The tornado's occasional brief touchdowns topped numerous trees. Some of the trees caused damage to buildings and vehicles when they fell. The tornado caused little direct structural damage to any buildings.

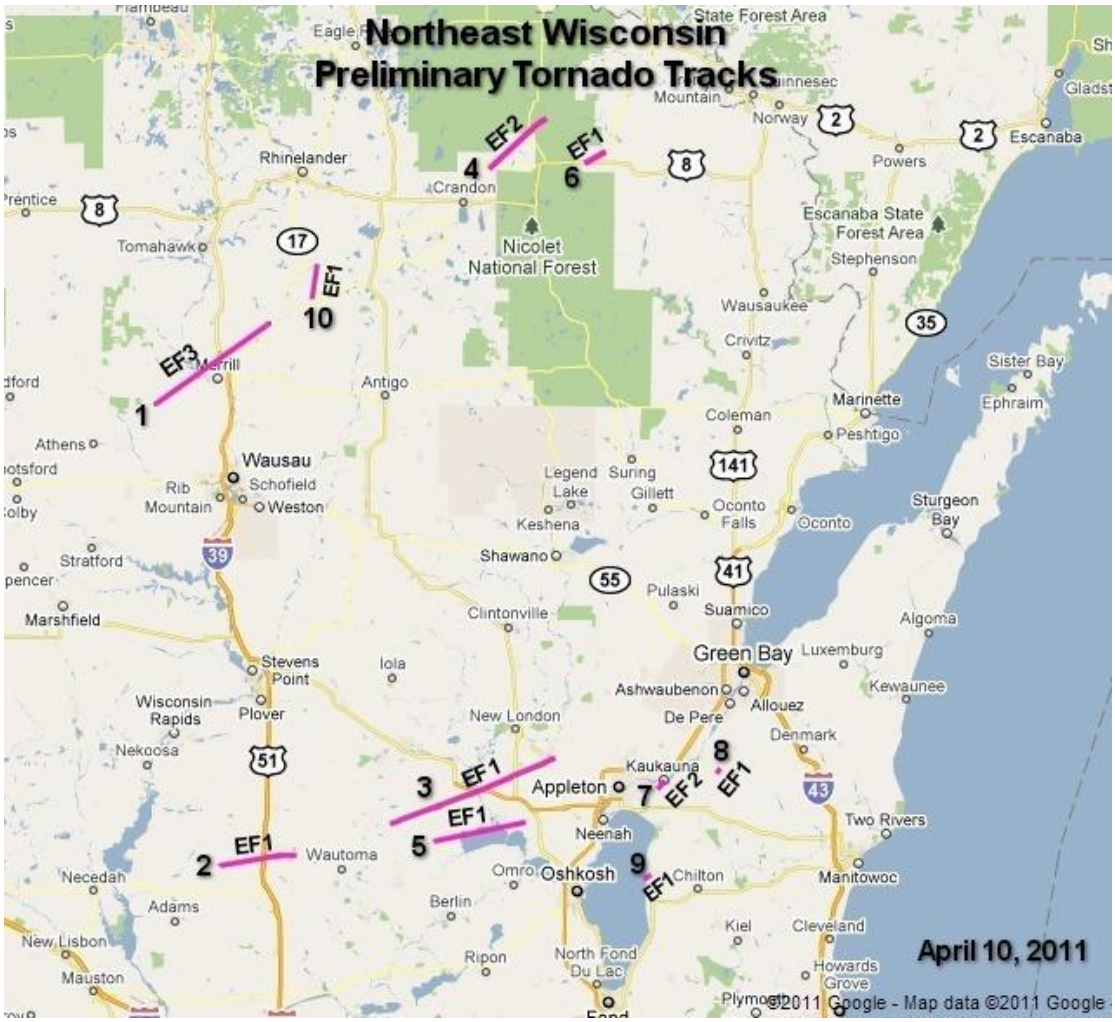
Event 23: August 20, 2010

The F/EF-1 tornado touched down 2 miles southeast of Greenleaf at 3:20 pm CST. The tornado travelled just over 1.25 miles and was 75 yards wide before dissipating 2.7 ESE of Greenleaf at 3:22 pm CST. When the tornado initially touched down, several trees were snapped and uprooted. The tornado then destroyed a relatively new barn constructed of metal wall panels and roof. Pieces of the roof and wall were strewn over 100 yards from the site. About 50 to 100 yards on either side of the damaged barn small outbuildings and trees were untouched. The tornado continued east-northeast to another farm and heavily damaged a metal building which contained hay bales. Large parts of the metal roof were thrown over 200 yards. Numerous trees along the patch were snapped or uprooted. Estimated maximum winds were 90 mph. The tornado dissipated just north of the Holland State Wildlife Area.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

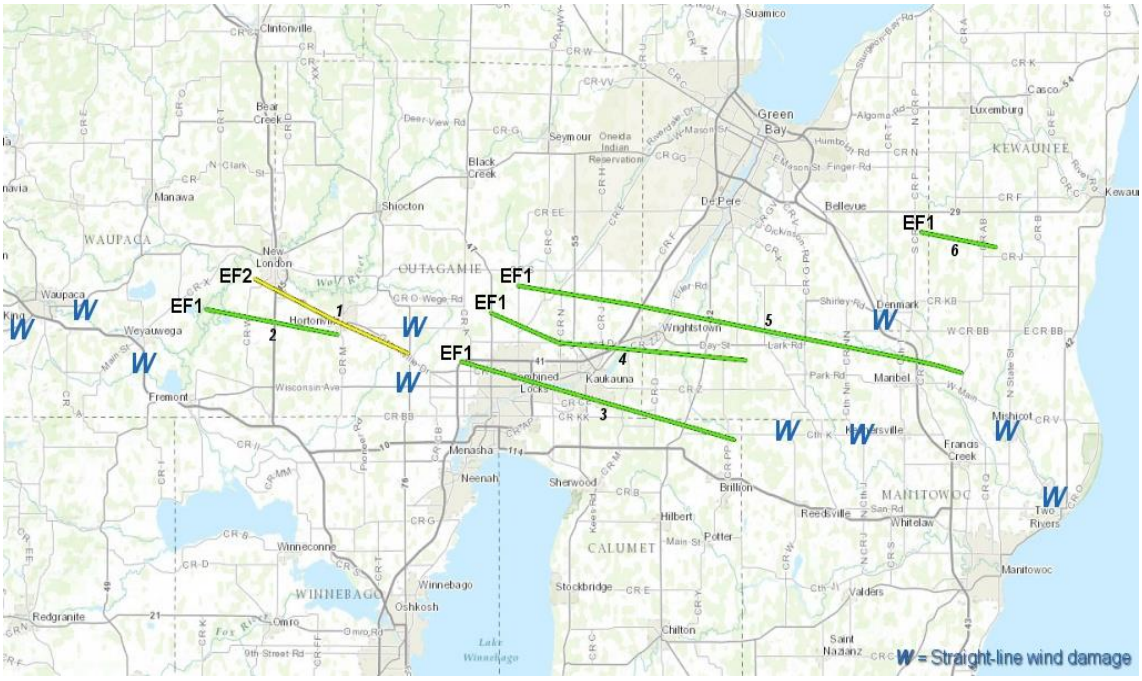
Event 24: April 10, 2011

A brief F/EF-1 tornado touched down about a mile and a half south of Greenleaf. The tornado damaged the tops of two silos and then ripped the roof off a barn. Average width of the tornado was 75 yards.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
BROWN COUNTY

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 25: August 6, 2013

The third of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down four tenths of a mile west of Mackville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado caused a barn to collapse, and heavily damaged a boat showroom in Little Chute. Another barn lost part of its roof northwest of Kaukauna. Damage to trees was sporadic as it moved through Outagamie County. The maximum width of the tornado in Outagamie County 175 yards, with an average width of one hundred yards. The tornado moved into southern Brown County, about two miles southwest of Wrightstown around 11:48 pm CST. In Brown County, the tornado uprooted or snapped dozens of trees as it moved east, just south of Greenleaf. A house lost an attached garage when winds blew in the garage door and caused a large portion of the garage roof to lift off. The walls of a nearby building collapsed. The maximum width of the tornado in Brown County was 175 yards and average with was 125 yards. The tornado travelled 19.2 miles before dissipating 2.7 miles west of Morrison at 23:53 pm CST.

Event 26: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.

Event 27: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the county. The tornado in Manitowoc County has a maximum width of 250 yards and average width of 125 yards. The tornado travelled thirty-three miles across three counties before dissipating.

Event 28: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

Event 29: June 15, 2015

A weak F/EF-0 tornado touched down at 2:31 pm CST a mile and a half north-northwest of Glenmore in Brown County. The tornado traveled just over a quarter of a mile and was 25 yards wide before the tornado dissipated 1.4 miles north-northwest of Glenmore. A swing set was toppled and a small metal shed was pushed twenty feet.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	20	1954	0400	Brothertown	2	33	1.0
2	5	8	1964	1830-1906	Winneconne-Wrightstown	2	65	14.0
3	7	8	1965	1700	Lake Winnebago - 1 N Sherwood	2	100	3.0
4	6	30	1967	2349-2359	Chilton - 7 E Chilton	2	100	6.0
5	7	2	1967	1400	Brillion	1	35	1.0
6	4	22	1971	1730	4 SW Hilbert	0	25	0.3
7	3	11	1973	1030	2 E Calumetville	1	50	2.0
8	8	9	1979	1820	Rockland Beach	2	50	1.0
9	4	4	1981	0035	4 W Kiel	2	25	0.1
10	7	19	1983	1925	Stockbridge Harbor	1	100	2.0
11	5	24	1989	2105	4 WNW Chilton	1	50	0.3
12	6	11	1996	1608-1609	5 NW Chilton	0	30	0.1
13	7	18	1996	1805-1807	1.1 S - 1.6 SE Jericho	1	100	1.5
14	7	18	1996	1810	5.9 S Chilton	0	25	0.1
15	7	18	1996	1815-1816	2.2 WNW - 1.8 W St Anna	0	50	0.5
16	5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	1	75	1.4
17	6	8	2003	1242-1246	4.3 W - 4.1 WSW Brothertown	0	40	0.4
18	8	3	2003	1359-1403	0.3 W - 0.2 ENE Potter	1	75	0.4
19	5	6	2005	1525-1529	5 WSW - 3.7 SW Brothertown	0	50	1.7
20	6	9	2005	1814	4 NW Stockbridge	0	25	0.1
21	6	24	2006	1614-1615	4 W Sherwood	0	10	0.1
22	4	10	2011	1959-2001	1.6 NW Quinney – 1.5 SSE Stockbridge	1	100	1.7
23	8	23	2011	2005-2006	0.8 ENE – 1.3 E Sherwood	0	100	0.5
24	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	1	175	20.7
25	8	7	2013	0000-0015	0.5 SSE Henrysville – 1 NE Stangelville	1	100	5.6

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

Event 1: June 20, 1954

The F/EF-2 tornado developed around 4 am CST in Brothertown. The tornado travelled one mile and had a maximum width of less than 50 yards.

Event 2: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 3: July 8, 1965

The F/EF-2 tornado touched down one mile west of Sherwood and travelled approximately 3 miles to the northeast before dissipating one mile north of Sherwood around 5 pm CST. The tornado was 100 yards wide. The twister, striking in a narrow path northeast from High Cliff Park broke trees, power and telephone poles, and leveled a barn at the farm of Mrs. Anna Goaz at Route 1 in Menasha. Several other farm properties were damaged. Two teenage girls received multiple cuts and bruises when they were picked up by the twister and thrown down on a road in the High Cliff Beach area.

Event 4: June 30, 1967

The F/EF-2 tornado struck Chilton around 11:49 pm CST. The tornado then travelled to 7 miles east of Chilton before dissipating around 11:59 pm CST. The maximum width of the tornado was 100 yards. The city of Chilton took the brunt of the damage. At least five buildings were destroyed beyond repair. A trailer home tumbled end over end across a lot and a good share of trees were torn up.

Event 5: July 2, 1967

The city of Brillion was struck by an F/EF-1 tornado around 2 pm CST. The local storm report indicated a touchdown in the city of Brillion. The tornado was 35 yards wide and travelled a mile before dissipating.

Event 6: April 22, 1971

The F/EF-0 tornado touched down briefly 4 miles southwest of Hilbert around 5:30 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile.

Event 7: March 11, 1973

An early season F/EF-1 struck two miles east of Calumetville around 10:30 am CST. The tornado was 50 yards wide and travelled two miles before dissipating.

Event 8: August 9, 1979

The F/EF-2 tornado touched down near Rockland Beach around 6:20 pm CST. The strong tornado only travelled about a mile and was fifty yards wide. One death was attributed to the tornado. A Rockland Beach woman died after the winds demolished the family home. She was crushed as the family's first floor fireplace fell into the basement. The husband and three children were not hurt.

Event 9: April 4, 1981

A brief F/EF-2 tornado touched down around 12:35 am CST 4 miles west of Kiel. The tornado was only 25 yards wide and travelled about a quarter of a mile. Six trailers in a line in the Country Aire Trailer Court were destroyed. One trailer was lifted into the air and deposited upside down.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

Event 10: July 19, 1983

The tornado (F/EF-1) touched down at Stockbridge Harbor around 7:25 pm CST. The tornado smashed a shed roof and damaged two homes near Lake Shore Drive. The tornado turned east southeast damaging two garages and a barn on Military Road and then Hickory Hill Road where the roof of a mobile home was destroyed. The tornado was 100 yards wide and travelled 2 miles before dissipating.

Event 11: May 24, 1989

The F/EF-1 tornado touched down 4 miles west northwest of Chilton around 9:05 pm CST. The tornado was 50 yards wide and was on the ground for a quarter of a mile.

Event 12: June 11, 1996

The F/EF-0 tornado briefly touched down 5 miles northwest of Chilton near the intersection of County Trunk BB and Killsnake Road around 4:08 pm CST. The tornado was 30 yards wide and was on the ground for a tenth of a mile before dissipating around 4:09 pm CST. The tornado threw a pile of lumber 30 feet in the air, tore shingles off of a shed and broke a window.

Event 13: July 18, 1996

The F/EF-1 tornado touched down 1.1 miles south of Jericho around 6:05 pm CST. The tornado was 100 yards wide and was on the ground a mile and a half before it dissipated 1.6 miles southeast of Jericho at 6:07 pm CST.

Event 14: July 18, 1996

The F/EF-0 developed 5.9 miles south of Chilton around 6:10 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado moved over a squad car, violently shaking it about. The tornado flattened portions of two nearby wheat fields.

Event 15: July 18, 1996

The F/EF-0 tornado developed 2.2 miles west northwest of St. Anna around 6:15 pm CST. The tornado was 50 yards wide and travelled a half mile before dissipating 1.8 miles west of St. Anna around 6:16 pm CST. The tornado damaged one farm, numerous trees and some crops. Calf houses at the farm were thrown 1,000 feet. The tornado entered Fond Du Lac County 1.6 miles southeast of Jericho and then reentered Calumet County 2.2 west north of St. Anna.

Event 16: May 31, 1998

The tornado developed a half mile north of Stockbridge around 1:20 am CST. The F/EF-1 tornado was 75 yards wide and travelled 1.4 miles before dissipating 2 miles northeast of Stockbridge around 1:24 am CST. The tornado destroyed a garage and silo, damaged two barns and overturned farm vehicles. A 2-by-4 was driven through the exterior wall of a house, narrowly missing one of the sleeping children.

Event 17: June 8, 2003

A waterspout (F/EF-0) was reported 4.3 miles west of Brothertown at 12:42 pm CST. The waterspout was 40 yards wide and travelled four tenths of a mile before dissipating 4.1 miles west southwest of Brothertown at 12:46 pm CST.

Event 18: August 3, 2003

The F/EF-1 tornado touched down three tenths of a mile west of Potter around 1:59 pm CST. The tornado was 75 yards wide and was on the ground for nearly a half mile before dissipating two tenths of a mile east northeast of Potter around 2:03 pm CST. The tornado damaged several houses, outbuildings and trees around Potter.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

Event 19: May 6, 2005

The F/EF-0 waterspout touched down 5 miles west southwest of Brothertown at 3:25 pm CST. The water spout was 50 yards wide and was on the water for over a mile and a half before dissipating 3.7 miles southwest of Brothertown at 3:29 pm CST.

Event 20: June 9, 2005

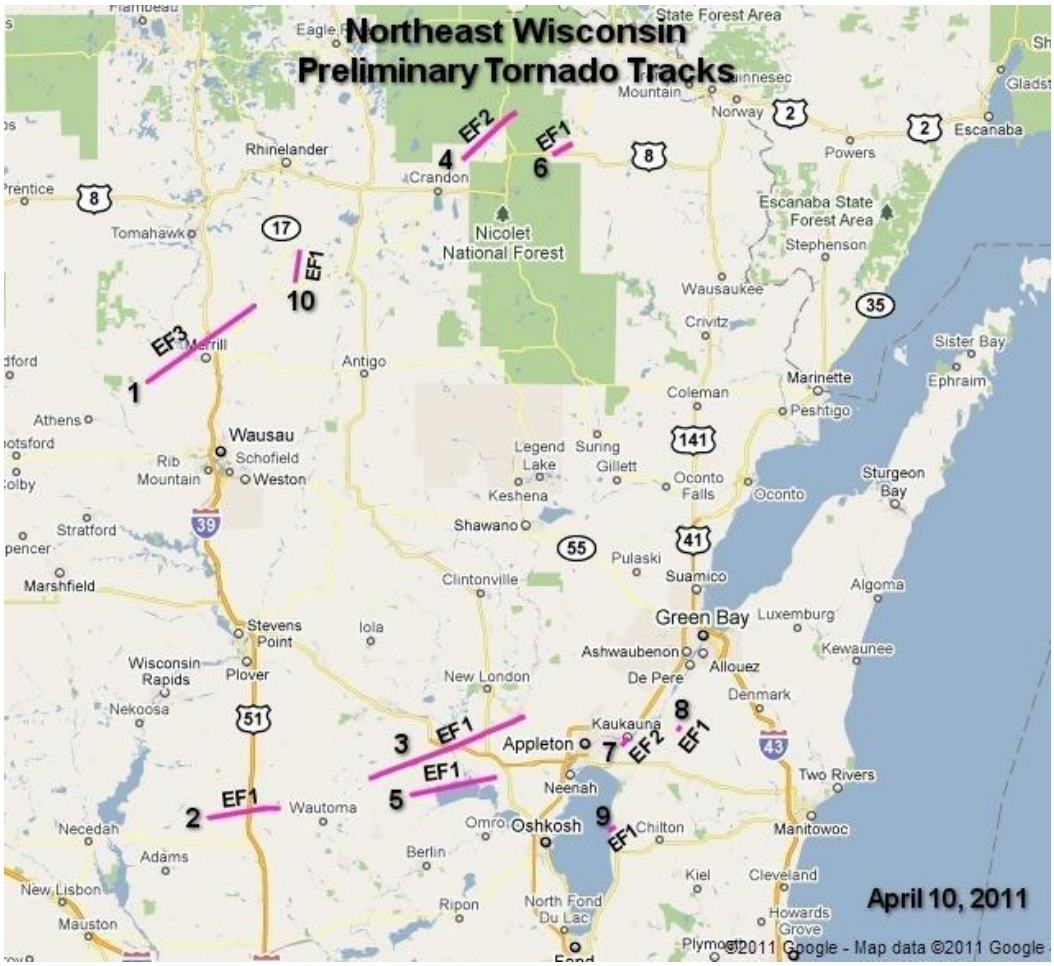
A waterspout (F/EF-0) touched down 4 miles northwest of Stockbridge on Lake Winnebago in Calumet County at 6:14 pm CST. The waterspout was 25 yards wide and was on the water for a tenth of a mile.

Event 21: June 24, 2006

A waterspout (F/EF-0) was reported 4 miles west of Sherwood on Lake Winnebago in Calumet County at 4:14 pm CST. The waterspout remained nearly stationary for a minute before dissipating.

Event 22: April 10, 2011

A brief F/EF-1 tornado moved off Lake Winnebago and onshore south of Stockbridge just before 8 pm CST. The waterspout was seen as it moved onshore, damaging two homes. A three season room on one of the houses was ripped off the structure. The tornado moved northeast and tore a section off the roof of a large outbuilding. The tops of trees were snapped in two areas along the path of the tornado. The average width of the tornado was 75 yards.



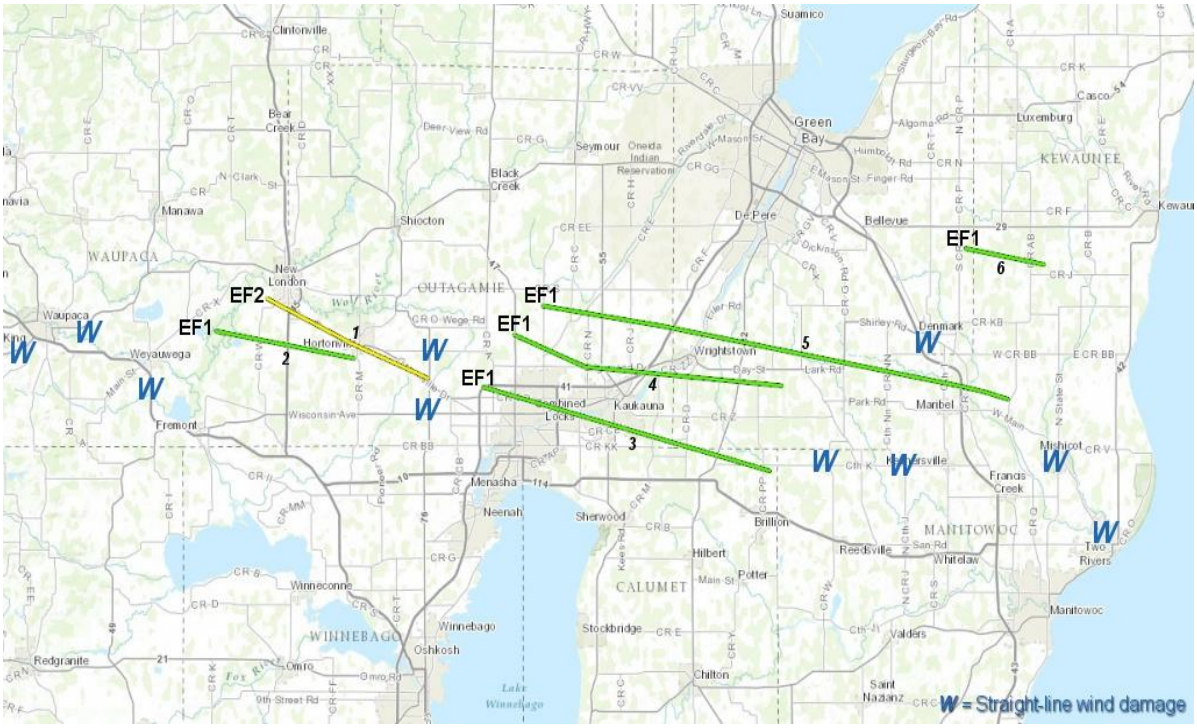
TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

Event 23: August 23, 2011

The F/EF-0 tornado touched down less than a mile northeast of Sherwood at 8:05 pm CST. The F/EF-0 tornado toppled two trees that damaged the roof of a house and snapped or uprooted six pine trees near Highway M. The tornado continued east-southeast moving over a swamp. Swirl marks were seen in the thick swamp grass. The tornado then hit a farm on Kesler Road. Two old barns were heavily damaged. Peak winds were estimated at 85 mph with an average width of 75 yards.

Event 24: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
CALUMET COUNTY

Event 25: August 7, 2013

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
DOOR COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	7	1	1956	1205	5 E of Maplewood to 4 SE Institute	2	50	11.0
2	7	25	1966	1820	0.5 E Maplewood	0	20	2.0
3	4	22	1970	2100-2110	1 N Casco - Rio Creek	2	500	2.0
4	4	22	1970	2120-2130	7 SE Maplewood	2	500	4.0
5	7	12	1973	0730	Jacksonport	1	100	3.0
6	6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	2	150	5.0
7	7	28	1991	1015	Near Rock Island (waterspout)	0	-9999	-9999
8	7	28	1991	1015	Near Washington Island (waterspout)	0	-9999	-9999
9	8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	3	1300	5.1
10	8	4	1999	1605-1615	21 ESE Sturgeon Bay (waterspout)	0	-9999	-9999
11	9	9	1999	1455	3 N Sister Bay (waterspout)	0	-9999	-9999
12	9	19	1999	1646-1710	8 SE Sturgeon Bay (waterspout)	0	-9999	-9999
13	7	13	2000	1455	1.5 NE Forestville	0	50	0.1
14	7	20	2000	1258	2 W Sister Bay (waterspout)	0	-9999	-9999
15	4	23	2001	1326-1346	12 NW - 9 NW Sturgeon Bay (waterspout)	0	-9999	-9999
16	6	18	2006	1643	3 NW Sister Bay	0	-9999	-9999
17	9	29	2006	0920-0955	Chambers Is. - 12 SE Cedar River (waterspout)	0	-9999	-9999
18	6	20	2007	1606	** 6 NW Ellison Bay (waterspout)	0	-9999	-9999
19	9	18	2012	1701	3 W Sister Bay	0	-9999	-9999

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
DOOR COUNTY

Event 1: July 1, 1956

The F/EF-2 tornado developed 5 miles east of Maplewood and travelled 11 miles to four miles southeast of Institute around 12:05 pm CST. The tornado had a maximum width of 50 yards.

Event 2: July 25, 1966:

The F/EF-0 tornado touched down about a half mile east of Maplewood around 6:20 pm CST. The tornado was 20 yards wide and travelled approximately two miles. An interesting note to the local storm report from July 1966 indicated a strong waterspout was noted over the Bay of Green Bay. According to the local storm report, a waterspout lifted several boats out of the water dropping one on a car at Ephraim. It also dropped twelve large trees down at Gordon Lodge. This tornado/waterspout was not documented in this study.

Event 3: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST one mile north of Casco in Kewaunee County. The tornado moved northeast for 11 miles before dissipating near Rio Creek in southern Door County around 9:10 pm CST. The tornado reached a maximum width of 500 yards. Fifteen barns near Casco and Rio Creek were destroyed. Two persons were injured when their house trailer was upended south of Forestville. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 4: April 22, 1970

Several tornadoes were reported across north central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST seven miles southeast of Maplewood. This may be the same tornado that tore through eastern Kewaunee County from Algoma to 6 miles northeast of Algoma. The tornado travelled about four miles and reached 500 yards in width in Door County before dissipating.

Event 5: July 12, 1973

The F/EF-1 tornado touched down in Jacksonport in Door County around 7:30 am CST. The tornado was 100 yards wide and travelled 3 miles. Scattered damage was reported west and south of Jacksonport. As many as six waterspouts were reported by one observer off Jacksonport. A seiche caused a drop of two feet in water level locally about fifteen minutes after passage of the storms.

Event 6: June 8, 1985

The F/EF-2 tornado touched down around 8 pm CST near Sand Bay, causing some building damage. The tornado skipped east 5 miles across portions of Sturgeon Bay. The tornado was 150 yards wide. Garages, sheds and ten barns were leveled or blown away. Yachts were blown off cradles and hundreds of trees were downed. Property damage was estimated at $1.8 million dollars. Hail up to five inches in diameter covered the ground to a depth of six inches just northeast of Sturgeon Bay. The storm caused an estimated $1.5 million dollars in crop damage.

Event 7: July 28, 1991

A waterspout was reported near Rock Island at 10:15 am CST. A second waterspout was reported near Washington Island.

Event 8: July 28, 1991

A waterspout was reported near Washington Island around 10:15 am CST. A second waterspout was reported near Rock Island around the same time.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
DOOR COUNTY

Event 9: August 23, 1998

The F/EF-3 tornado struck a rural section of central Door County in Northeast Wisconsin during the evening of August 23, 1998. The multiple-vortex tornado was on the ground for nearly 14 minutes, and carved a path of damage 5.1 miles long and 1/4 to over 1/2 mile wide at times. Damage was estimated at nearly $7 million. The tornado, which moved off the waters of Green Bay, moved on shore three miles southwest of Egg Harbor at 5:30 pm CST, near Horseshoe Bay. Thousands of trees were snapped or uprooted as the tornado moved across the heavily wooded area in Murphy Park. The width of the damage path just after it came on shore was nearly one-half mile! The tornado then crossed Highway 42 at about 5:34 pm CST, severely damaging several houses and businesses. Damage in this area was rated F2 on the Fujita Scale of F0 to F5. About three minutes later the tornado ripped a two-story farm house off its foundation, dropping it 20 yards away. Based on the house's construction, damage in this area was rated F3. Nearby, a campground was hit, causing considerable damage there to trees and campers. Amazingly, only two people were injured. The tornado weakened shortly thereafter, lifting off the ground three miles west-northwest of Jacksonport at around 5:44 pm CST.

AUGUST 23, 1998 DOOR COUNTY F-3 TORNADO

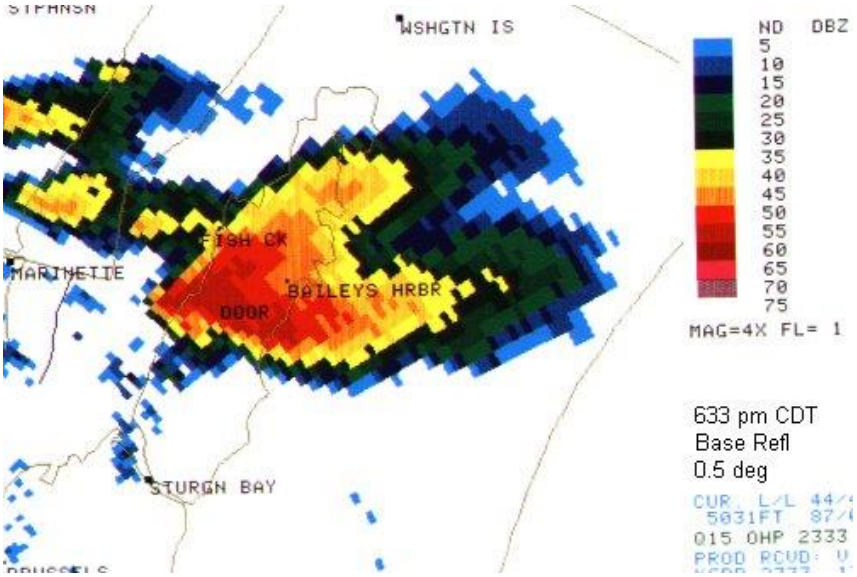
This photo was taken about the time the super cell thunderstorm was entering the Bay of Green Bay, off the Menominee, Michigan coast around 5:05 pm CST. The picture was taken 75 miles south of the storm. (Photograph © 1998 Michael Schardt)

This picture was taken around 5:15 pm CST, about the time the supercell was producing a waterspout on the bay. The picture was taken 25 miles south of the storm. (Photograph © 1998 Ray Fulwiler)

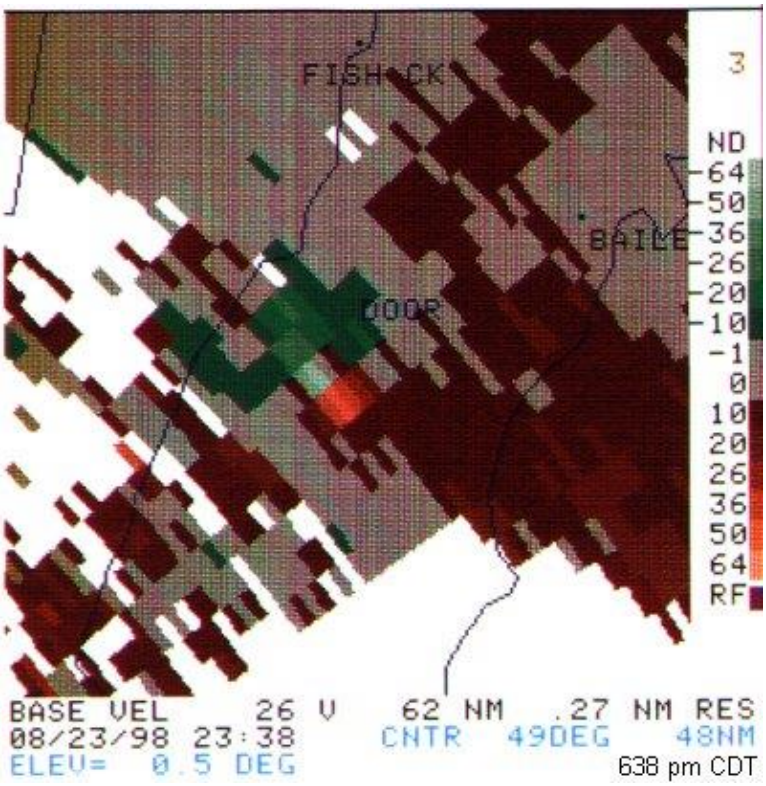
These photos were taken by Tom Janssen II at Murphy Park, which was hit by the tornado. The two on the left show the waterspout just after if developed, around 5:15 pm CST. The third picture was taken a little after 5:20 pm CST. The tornado was off the Door county shore over the Bay of Green Bay.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
DOOR COUNTY

These pictures were taken by Gary Gridley, from Egg Harbor. The photo on the left was taken at 5:25 pm CST. The picture on the right was taken around 5:30 pm CST, as the tornado was coming onshore at Murphy Park.



This image shows the supercell thunderstorm as viewed by the radar. The image was taken at 633 pm CDT.



The second image shows the tornado vortex signature 9 minutes later (638 pm CDT) near the time it was producing F3 damage. At this point, the radar measured 94 knot (108 mph) winds (ground relative) at about 4100 feet above the ground.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
DOOR COUNTY

Door County Tornado Damage

Here is a panoramic view looking east on Hwy 42. The damage width (which goes off the picture on both sides) was over ¼ mile wide as it passed over Hwy 42. (Photograph by Jeff Last)

TORNADO REFERENCE GUIDE - F/EF-3 TORNADOES

This building (left picture) was on the south side of the tornado as it passed over Hwy 42 (Photograph by Jill Last, NWS Green Bay). There used to be a farm house and barn here (picture on right).

Event 10: August 4, 1999

A waterspout (F/EF-0) was reported by a vessel on the lake 21 miles east southeast of Sturgeon Bay at 4:05 pm CST. The crew of the vessel observed two other waterspouts about 21 miles east southeast of Sturgeon Bay. The U.S. Coast Guard relayed the report they received from the vessel on the lake.

Event 11: September 9, 1999

A waterspout (F/EF-0) was reported 3 miles north of Sister Bay at 2:55 pm CST.

Event 12: September 19, 1999

The crew of a ship off the Door County shoreline, 8 miles southeast of Sturgeon Bay, spotted a waterspout (F/EF-0) at 4:46 pm CST and then dissipated around 5:10 pm CST. There may have been other waterspouts in the vicinity of the one reported.

Event 13: July 13, 2000

The F/EF-0 tornado touched down 1.5 miles northeast of Forestville at 2:55 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage.

Event 14: July 20, 2000:

Boaters spotted a waterspout (F/EF-0) two miles west of Sister Bay at 12:58 pm CST.

Event 15: April 23, 2001

A waterspout F/EF-0 developed 6 miles west southwest of Fairland around 1:26 pm CST. The waterspout moved north along the shoreline before it dissipated 9 miles northwest of Sturgeon Bay.

Event 16: June 18, 2006

A waterspout (F/EF-0) was reported 3 miles northwest of Sister Bay at 4:43 pm CST.

Event 17: September 29, 2006

A waterspout (F/EF-0) was reported off Door County, from Chambers Island to 12 miles southeast of Cedar River, Michigan around 9:20 am CST. The last report of the waterspout was around 9:55 am CST.

Event 18: June 20, 2007

A waterspout (F/EF-0) was reported 6 miles northwest of Ellison Bay at 4:06 pm CST.

Event 19: September 18, 2012

A brief (F/EF-0) waterspout was observed on the waters of the Bay of Green Bay three miles west of Sister Bay around 5:01 pm CST. The time of the event was estimated based on the time of 911 calls. A strong upper level trough and cold air aloft produced conditions favorable for waterspout formation on the waters of Green Bay.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
FLORENCE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	14	1957	1730	Florence	1	100	8.0
2	9	30	2002	1810-1811	5.5 SSE - 5.5 SE Spread Eagle	1	400	0.7
3	4	10	2011	1830-1846		1	100	12.1

Event 1: June 14, 1957

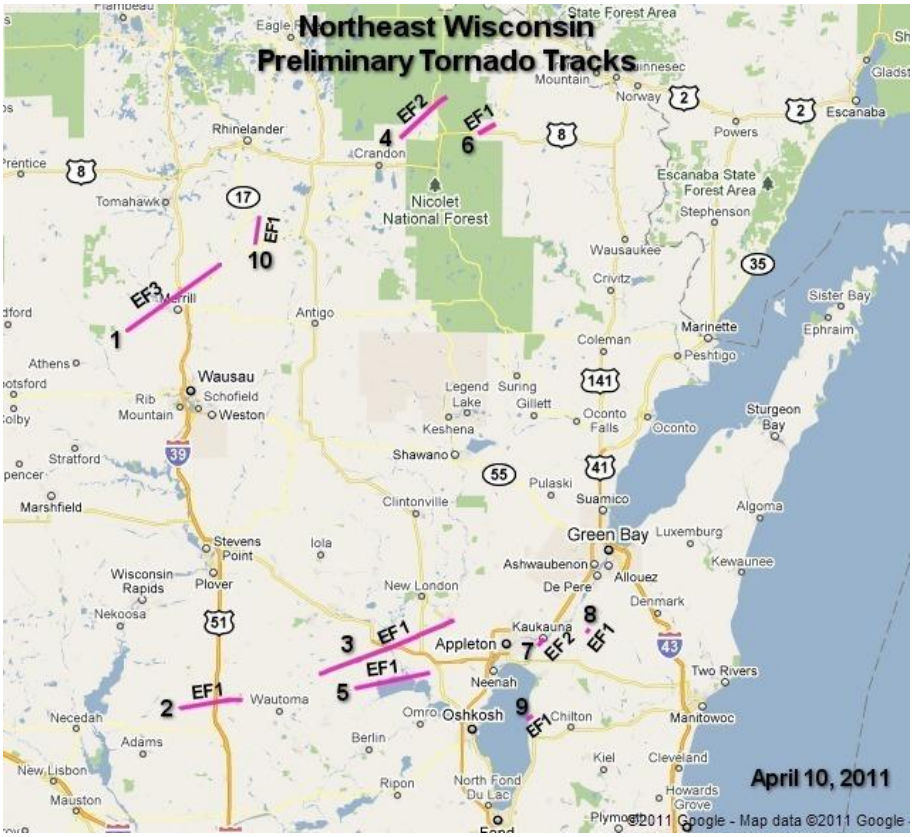
The F/EF-1 tornado touched down at Florence around 5:30 pm CST. The tornado travelled approximately 8 miles and reached a maximum width of 100 yards before dissipating.

Event 2: September 30, 2002

The F/EF-1 tornado touched down five and a half miles south southeast of Spread Eagle around 6:10 pm CST. The tornado was 400 yards wide and travelled seven tenths of a mile before dissipating five and a half miles southeast of Spread Eagle around 6:11 pm CST. The tornado destroyed a pole barn, a garage that was under construction and 6 to 10 outbuildings. 150 to 250 trees and power lines were downed, causing numerous power outages. The tornado tracked east-northeast across the Menominee River into upper Michigan where it continued to do damage.

Event 3: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
FOREST COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	9	19	1963	1800	Laona	1	33	1.0
2	6	30	1968	0400	3 NW Cavour	2	200	1.0
3	9	16	1972	1605	4 NW Wabeno - 2 N McAllister	2	200	53.1
4	5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	2	800	12.0
5	4	10	2011	1830-1846	3 SE Argonne – 6 SE Long Lake	2	600	12.1
6	4	10	2011	1903-1908	4.2 WNW – 3.2 N Armstrong Creek	1	250	3.3

Event 1: September 19, 1963

The F/EF-1 tornado tore through the village of Laona around 6 pm CST. The tornado was less than 50 yards wide and travelled one mile before dissipating.

Event 2: June 30, 1968

The F/EF-2 tornado touched down 3 miles northwest of Cavour around 4 am CST. The tornado travelled east northeast approximately one mile and had a maximum width of 200 yards. Several buildings were damaged on the Aschenbrenner Farm near Cavour.

Event 3: September 16, 1972

The F/EF-2 tornado formed 4 miles northwest of Wabeno around 4:05 pm CST. The tornado tracked south of Athelstane, north of Wausaukee and into upper Michigan. The track reentered Wisconsin about 2 miles north of McAllister and cross over the Wisconsin Public Service Corporation Grand Rapids Power Dam. The tornado reentered upper Michigan 3 miles southwest of Ingalls around 5:15 pm CST moving across Highway 41 about two miles north of Wallace. The final path length of the tornado was 53 miles with the tornado reaching a maximum width of 200 yards. Several barns were flattened in the Wabeno area, otherwise damage was mainly to woods and overhead wires.

Event 4: May 30, 1994

The F/EF-2 tornado touched down 2 miles southwest of Crandon around 850 pm CST. The tornado travelled 12 miles and reached a maximum width of 800 yards before dissipating one mile north of Laona around 9:16 pm CST. Three mobile homes and 25 homes were destroyed while 600 acres of timber was leveled. Three people were injured in a mobile that was destroyed by the tornado. The thunderstorms also produced tennis ball size hail as the storms passed through Rhinelander.

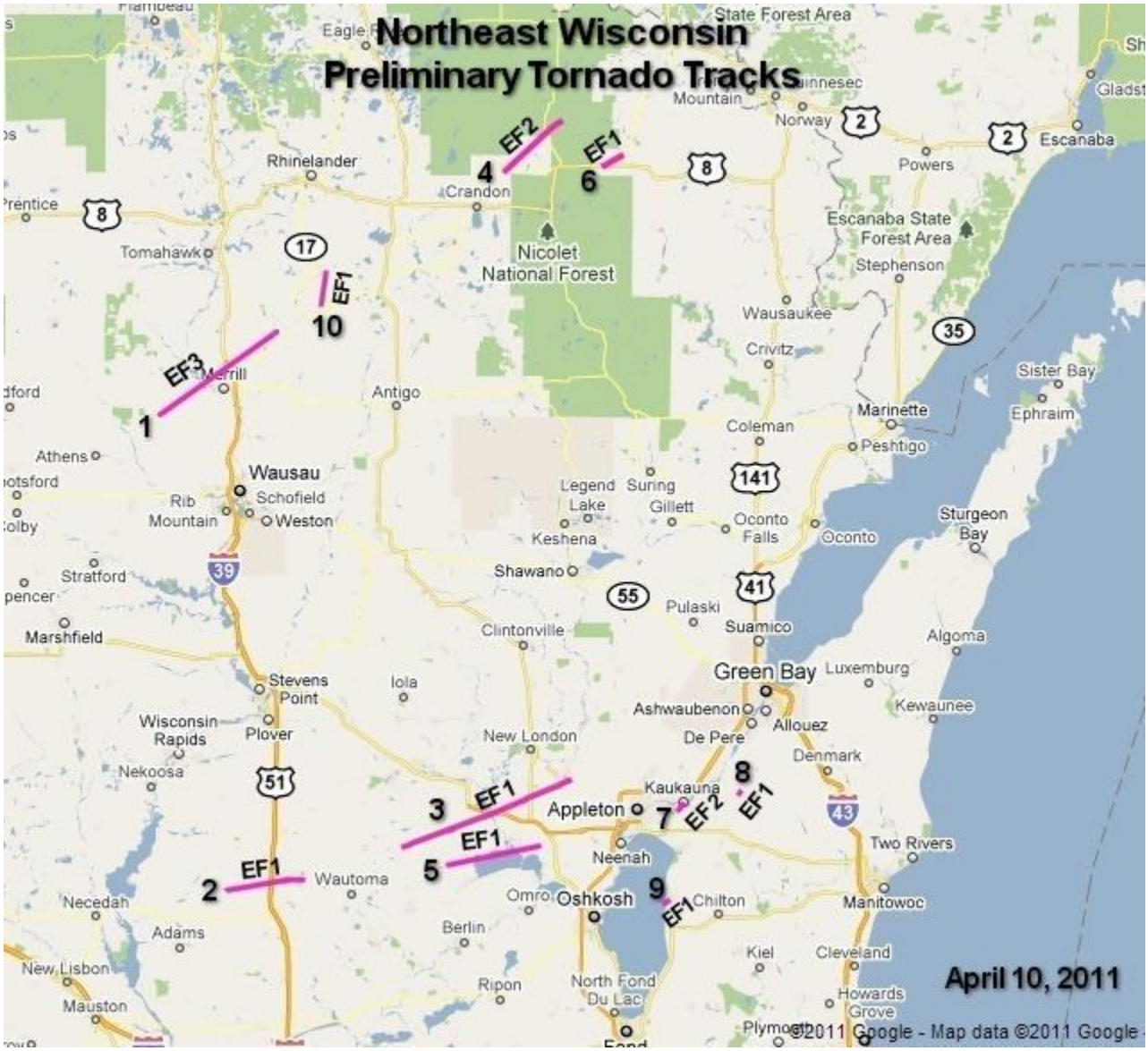
Event 5: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
FOREST COUNTY

Event 6: April 10, 2011

The F/EF-1 tornado (2nd tornado on this day) formed in Forest County about four miles west of Armstrong Creek at 7:03 pm CST. The tornado snapped and uprooted trees and damaged two houses. One of the houses sustained significant roof damage as the tornado moved across the area. The average width of the tornado was 125 yards.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
KEWAUNEE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	7	2	1969	1620	3 SW Luxemburg - Ellisville	1	100	7.0
2	4	22	1970	2100-2110	1 N Casco - Rio Creek	2	500	9.0
3	4	22	1970	2110	6 SW to 4 SE Luxemburg	1	500	7.2
4	4	22	1970	2120-2130	Algoma - 6 NE Algoma	2	500	5.0
5	5	8	1978	1650-1700	1.5 SW -2.5 SE Luxemburg	1	-9999	-9999
6	4	24	1994	1525	3 S Luxemburg	0	25	0.1
7	6	29	1995	1105	10 SW Kewaunee	0	10	0.1
8	6	4	2005	1730	5 E Kewaunee (waterspout)	0	-9999	-9999
9	5	22	2011	1805	5 NE Algoma	0	-9999	-9999
10	8	9	2012	1210-1220	6 S Kewaunee	0	-9999	-9999
11	8	9	2012	1225-1235	6 S Kewaunee	0	-9999	-9999
12	8	7	2013	0006-0010	0.5 SSE Henrysville – 1 NE Stangelville	1	100	5.6

Event 1: July 2, 1969

The F/EF-1 tornado travelled just over 7 miles across Kewaunee County, from 3 miles southwest of Luxemburg through the Ellisville area around 4:20 pm CST. The tornado had a maximum width of 100 yards. Several farms were damaged by the tornado.

Event 2: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9 pm CST one mile north of Casco. The tornado moved northeast for 11 miles before dissipating near Rio Creek in southern Door County around 9:10 pm CST. The tornado reached a maximum width of 500 yards. Fifteen barns near Casco and Rio Creek were destroyed. Two persons were injured when their house trailer was upended south of Forestville. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 3: April 22, 1970

The F/EF-2 tornado developed 2 miles northeast of Poland in extreme eastern Brown County around 9:10 pm CST. The tornado was 500 yards wide and travelled just over 7 miles to near Luxemburg before dissipating. Several farms were damaged and leveled the Kewaunee County Fair Grandstand at Luxemburg.

Event 4: April 22, 1970

Several tornadoes were reported across north-central and northeast Wisconsin on this date. The F/EF-2 tornado touched down around 9:20 pm CST from Algoma to 6 miles northeast of Algoma. The tornado travelled about five miles and reached a maximum width of 500 yards. Extensive damage was reported near Algoma northeast along the Lake Michigan shoreline. Among the buildings destroyed were a warehouse and a church steeple. Meanwhile, snow was occurring across northwest Wisconsin. Superior reported six inches of snow on the ground during the evening of the 22nd.

Event 5: May 8, 1978

The F/EF-1 tornado developed a mile and a half southwest of Luxemburg around 4:50 pm CST, and then moved to two and a half miles southeast of Luxemburg before dissipating around 5 pm CST. Two buildings were destroyed a mile and a half west of Luxemburg on Highway 54. A large pole building was destroyed two and a half miles southeast of Luxemburg.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
KEWAUNEE COUNTY

Event 6: April 24, 1994

The F/EF-0 tornado touched down 3 miles south of Luxemburg around 3:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. No damage was reported with this storm.

Event 7: June 29, 1995

The F/EF-0 tornado touched down 10 miles southwest of Kewaunee around 11:05 am CST. The tornado was 10 yards wide and travelled a tenth of a mile. The weak tornado touched down only for a few seconds in southern Kewaunee County. Minimal crop damage was reported since this brief tornado occurred in open rural country. The tornado appeared to form on the Lake Michigan lake breeze.

Event 8: June 4, 2005

A waterspout (F/EF-0) touched down on Lake Michigan 5 miles east of Kewaunee at 5:30 pm CST.

Event 9: May 22, 2011

A waterspout was observed over Lake Michigan about 5 miles northeast of Algoma.

Event 10: August 9, 2012

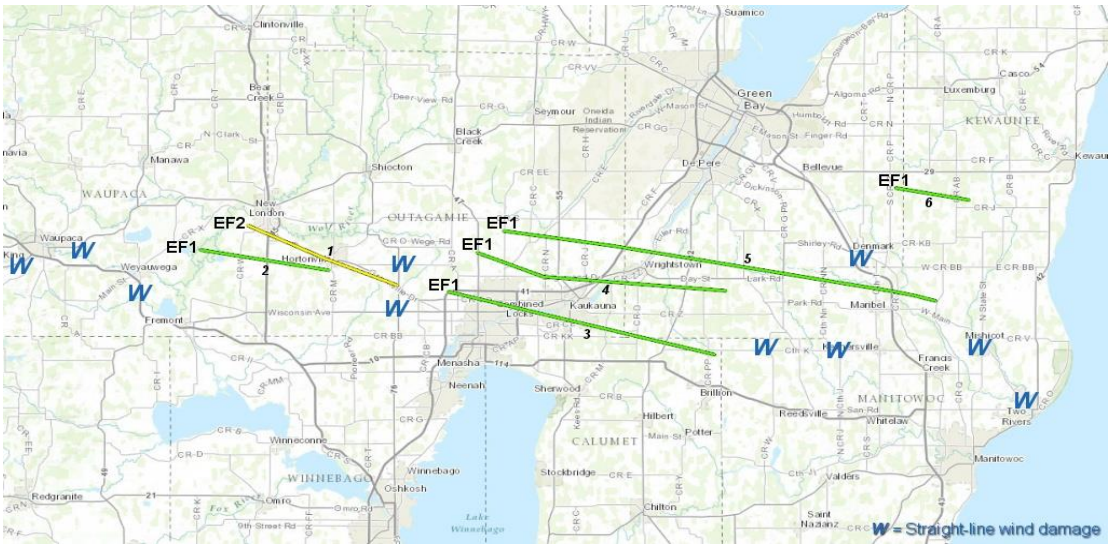
The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:10 pm and 12:20 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 11: August 9, 2012

The F/EF-0 waterspout was reported by a trained spotter over Lake Michigan six miles south of Kewaunee between 12:25 pm and 12:35 pm CST. An upper level trough of low pressure rotated through Wisconsin, resulting in numerous showers and thunderstorms. Cold air aloft associated with the trough, coupled with the warm waters of Lake Michigan provided favorable conditions for the development of waterspouts.

Event 12: August 7, 2013

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 12: August 7, 2013 continued

The last tornado of the night to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down a half mile south southeast of Henrysville in Brown County around 12:05 CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the region. A couple dozen trees were damaged or uprooted. In Brown County, the maximum width of the tornado was one hundred yards with an average width of seventy-five yards. The tornado (EF-1) moved into Kewaunee County about three miles southwest of Pilsen around 12:06 am CST. The tornado caused the walls and roof of a barn to collapse and damaged two silos. The tornado also uprooted several dozen trees along its path. In Kewaunee County, the maximum width of the tornado was 100 yards with an average width of seventy-five yards. The tornado travelled 5.6 miles before dissipating one mile northeast of Stangelville around 12:10 am CST.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LANGLADE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	4	1959	1145	Deerbrook	1	100	1.0
2	9	28	1971	1600-1720	23 NE Eau Claire - 2 E Merrill	3	300	78.4
3	6	13	1976	2000-2010	2 W Hogarty - Elton	1	50	21.3
4	6	13	1976	2045-2100	Rural Langlade Co - Rural Lincoln County	1	33	10.8
5	4	27	1984	1450	4 NW Antigo	2	17	7.5
6	6	7	2007	1548-1558	3.7 S White Lake to 3.5 NNE Markton	3	1000	7.4
7	4	10	2011	1750-1758	5 S Parrish	1	400	5.3
8	7	9	2013	1432-1456	10.8 S Parrish - 3.1 W Deerbrook	0	100	9.5

Event 1: May 4, 1959

The F/EF-1 tornado struck Deerbrook around 11:45 am CST. The tornado was 100 yards wide and was on the ground for a mile.

Event 2: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 3: June 13, 1976

The F/EF-1 tornado hit first about two miles west of Hogarty in Marathon County around 8 pm CST. The tornado skipped along and moved east northeast into extreme southwest Langlade County near Elmhurst and then continued to near Elton before dissipating at 8:10 pm. The tornado was 50 yards wide and travelled 21.3 miles. Some sheds were destroyed while windows of some buildings were damaged. Tree limbs and power lines were downed by the tornado.

Event 4: June 13, 1976

The tornado first reached the ground near Highway 64 in extreme southeast Lincoln County around 8:45 pm CST. The tornado then moved into western Langlade County about 3 miles north of Highway 64. The tornado skipped along to near county Highway I about 11 miles northwest of Antigo where it was last reported. The tornado was 50 yards wide and travelled nearly eleven miles. The only report of damage was some downed trees.

Event 5: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched 4 miles northwest of Antigo around 2:50 pm CST. The tornado was 20 yards wide and travelled 7.5 miles across Langlade County. One home and three barns were demolished and twenty-five head of dairy cows were crushed to death in one barn.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LANGLADE COUNTY

Event 6: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

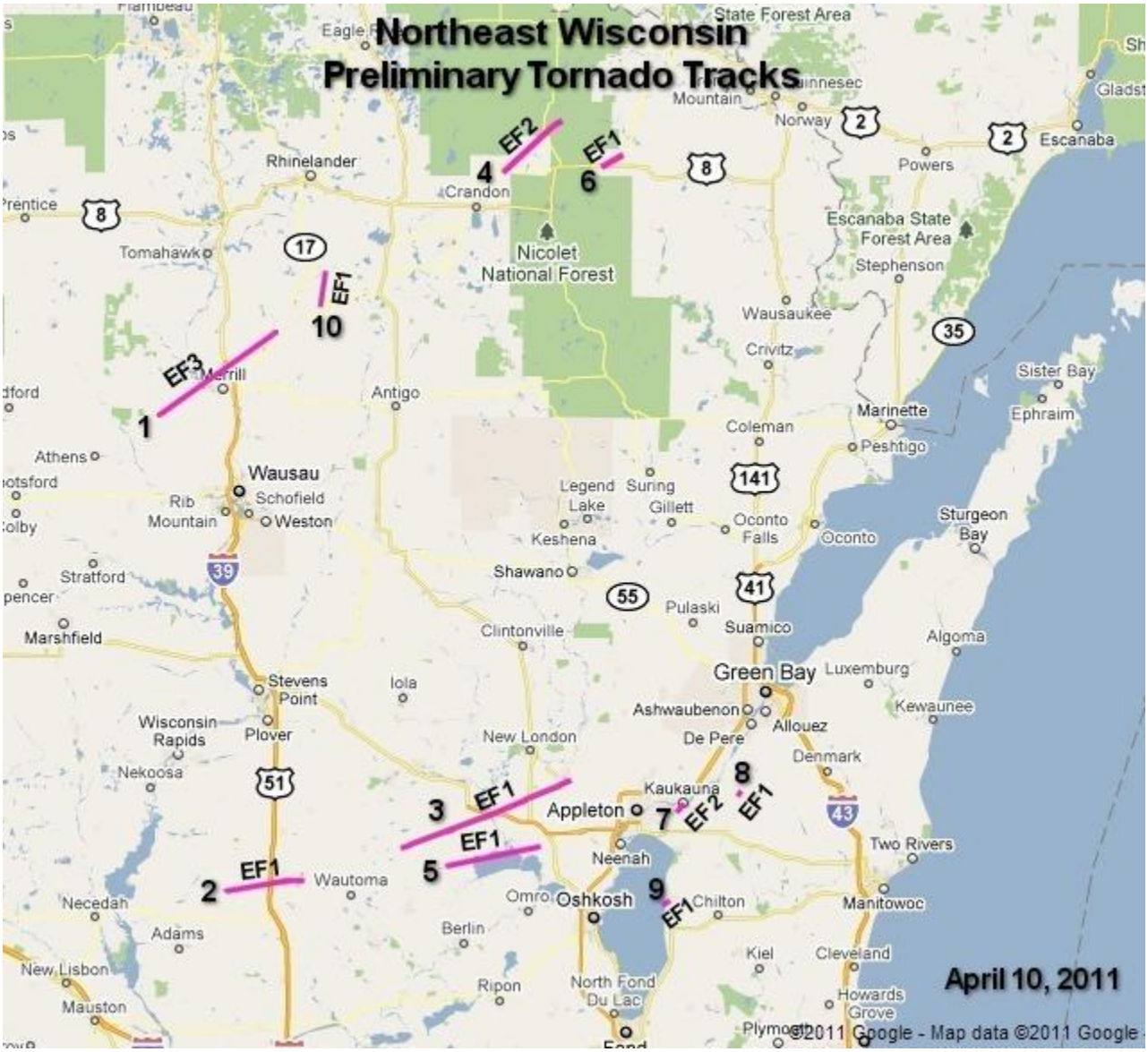
Picture on left: Tornado passing south of White Lake in Langlade Co. Picture courtesy: WAOW-TV.

Picture on right*:* Tornado as seen from HWY T in southwest Oconto Co. Picture courtesy of the Wisconsin Department of Natural Resources.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LANGLADE COUNTY

Event 7: April 10, 2011

The F/EF-1 tornado formed about 5 miles south of Parrish around 5:50 pm CST and moved just east of north for a little over five miles. The tornado affected about 1600 acres of hardwood and softwood trees. It was estimated that over one million trees were snapped, uprooted or suffered serious damage. The loss to timber alone is estimated at over one million dollars. One cabin was destroyed by fallen trees. The tornado was seen by a storm chaser at 5:55 pm CST. The average width of the tornado was 250 yards.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LANGLADE COUNTY

Event 8: July 9, 2013

A tornado (F/EF-0) touched down 10.8 miles south of Parrish in Langlade County (near the Lincoln / Langlade County line) around 2:32 pm CST. The tornado traveled east for about nine and a half miles, although the tornado track was not continuous. The maximum width of the tornado was 100 yards, with an average width of 75 yards. The tornado damage was to trees and tree limbs. The tornado dissipated 3.1 miles west of Deerbrook at 2:56 pm CST.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LINCOLN COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	3	1955	1800	Irma	1	33	7.0
2	6	30	1958	1730	1 NW Gleason	2	50	2.0
3	9	3	1961	1700	12 W Merrill	1	50	1.0
4	7	24	1962	1700	Corning	2	50	1.0
5	6	26	1969	1700	2 SE Tomahawk - Pelican Lake	1	50	22.0
6	9	28	1971	1415-1605	19 W Merrill - Merrill	2	300	19.0
7	6	13	1976	2045-2100	9 E Merrill to 11 NW Antigo	1	50	10.8
8	6	16	1979	1530-1545	2 N Irma	1	-9999	-9999
9	6	14	1991	1155	8 WNW Merrill	1	50	1.0
10	7	18	1996	1620-1630	1.5 SW - 3 SSE Tomahawk	1	100	3.0
11	7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	2	100	1.4
12	3	29	1998	1928-1935	3 W - 3 N Tomahawk	0	75	4.5
13	5	5	1999	1630-1631	1 WNW Tomahawk	0	25	0.1
14	4	18	2002	1549	2 W Bradley	0	25	0.1
15	7	30	2002	1747-1750	10.5- 9.5 NW Merrill	0	150	1.2
16	7	30	2002	1808-1828	5 N - 9.5 NE Merrill	0	200	9.0
17	7	30	2002	1825	8.5 NE Merrill	0	25	0.1
18	9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	2	250	3.0
19	7	11	2004	1545	Irma	0	10	0.1
20	7	11	2004	1613	6 W Tomahawk	0	10	0.1
21	7	11	2004	1613	6 W Tomahawk	0	10	0.1
22	7	11	2004	1640	4 W Tomahawk	0	10	0.1
23	4	10	2011	1708-1741	2 N Hamburg – 1 SW Bloomville	3	1050	21.2
24	7	9	2013	1359-1404	0.5 NE Schultz - 3.9 W Bloomville	0	100	4.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LINCOLN COUNTY

Event 1: May 3, 1955

The F/EF-1 tornado touched down in Irma, approximately 9 miles north of Merrill around 6 p m CST. The tornado travelled 7 miles and had a maximum width less than 50 yards. Lincoln County Sheriff Alfred Giese stated in the Rhinelander Daily News that a tornado ripped through several farms and wooded lot country about 9 miles north of Merrill. Giese stated that three barns were blown down and that communications between Merrill and the State Traffic Patrol Headquarters in Tomahawk was disrupted for a while. Two people were trapped in the wreckage and were freed by sheriff officers and highway crews. No homes were damaged.

Event 2: June 30, 1958

A brief F/EF-2 tornado touched down around 5:30 pm CST one mile northwest of Gleason. The tornado travelled approximately 2 miles and reached a maximum width of 50 yards. According to the Rhinelander Daily News, the United States Weather Bureau stated a Northwest Orient Airlines plane and an Antigo radar station both reported radar echoes with the dangling hooks characteristic of tornado clouds.

Event 3: September 3, 1961

The F/EF-1 tornado touched down 12 miles west of Merrill around 5 pm CST. The tornado was 50 yards wide and was on the ground for a mile.

Event 4: July 24, 1962

The F/EF-2 tornado touched down briefly in the town of Corning around 5 pm CST. The tornado travelled about a mile and had a maximum width of 50 yards. The tornado destroyed a barn and other buildings in the town of Corning.

Event 5: June 26, 1969

The F/EF-1 tornado travelled 22 miles across Clark, Taylor and Lincoln Counties. The tornado did major damage from the Withee area in northern Clark County around 4:10 pm CST. Two persons were injured and about ten farms sustained damage. Major damage from the tornado was reported at the Taylor County Airport near Medford around 4:30 pm CST. Seven planes and one hangar suffered severe damage. The tornado entered western Lincoln County and travelled to near Pelican Lake around 5 pm CST before dissipating. Five more farms suffered serious damage in northeast Lincoln County. Tree and wire damage termed “worst ever” by utilities in the northern resort areas.

Event 6: September 28, 1971

The tornado was first sighted across portions of Clark and Taylor Counties. The tornado moved into Lincoln County 19 miles west southwest of Merrill around 2:15 pm CST. The tornado travelled 19 miles and reached a maximum width of 300 yards before dissipating near Merrill. Several farms were damaged or destroyed by the tornado across Clark, Taylor, and Lincoln counties. The storm summary does not indicate where the heaviest damage occurred.

Event 7: June 13, 1976

The tornado first reached the ground near Highway 64 in extreme southeast Lincoln County around 8:45 pm CST. The tornado then moved into western Langlade County about 3 miles north of Highway 64. The tornado skipped along to near county Highway I about 11 miles northwest of Antigo where it was last reported. The tornado was 50 yards wide and travelled nearly eleven miles. The only report of damage was some downed trees.

Event 8: June 16, 1979

The F/EF-1 tornado developed 2 miles north of Irma around 3:30 pm CST. The tornado moved to 2 miles northeast of Irma before dissipating at 3:45 pm CST.

Event 9: June 14, 1991

The tornado touched down 8 miles west northwest of Merrill around 11:55 am CST. The F/EF-1 tornado was 50 yards wide and was on the ground for a mile. The tornado destroyed several trees, a barn and damaged a roof and porch of a house.

Event 10: July 18, 1996

The F/EF-1 tornado touched down a mile and a half southwest of Tomahawk at 4:20 pm CST. The tornado uprooted two trees at Bradley Park, then moved southeast across Lake Mohawkskin, flipping two boats over. The tornado moved back on land and tore part of a roof off a tavern while a garage was removed from its foundation. It continued to move into the Road Lake area where it produced its most significant damage. Three cottages were damaged after trees fell on them. The tornado reached a maximum width of 100 yards before it dissipated nearly three miles southeast of Tomahawk around 4:30 pm CST.

Event 11: July 16, 1997

On this date the F/EF-2 tornado touched down eleven and a half miles southeast of Merrill around 2:38 pm CST. The storm travelled under a mile to the southeast into Marathon County before dissipating 12 miles southeast of Merrill around 2:40 pm CST. The tornado reached a maximum width of 100 yards. As the storms rolled through Lincoln County, softball size hail was reported northeast of Merrill.

Event 12: March 29, 1998

The F/EF-0 tornado touched down in 3 miles west of Tomahawk at 7:28 pm CST. The tornado was 75 yards wide and travelled four and a half miles before dissipating 3 miles north of Tomahawk at 7:35 pm CST. The tornado damaged several sheds, garages and a pole building west of Tomahawk. The storm also downed many power poles, disrupting power to thousands of customers.

Event 13: May 5, 1999

The F/EF-0 tornado touched down one mile west northwest of Tomahawk at 4:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile before dissipating at 4:31 pm CST.

Event 14: April 18, 2002

A brief F/EF-0 tornado touched down 2 miles west of Bradley at 3:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 15: July 30, 2002

The F/EF-0 tornado touched down ten and a half miles west of Merrill around 5:47 pm CST. The tornado was 150 yards wide and skipped along the ground for 1.2 miles before dissipating nine and a half miles west of Merrill around 5:50 pm CST.

Event 16: July 30, 2002

The F/EF-0 tornado developed 5 miles north of Merrill at 6:08 pm CST. The tornado was 200 yards wide and travelled on the ground for 9 miles before dissipating nine and a half miles northeast of Merrill at 6:28 pm CST. The tornado destroyed a barn and another structure, tearing roofs from some buildings and moving others from their foundation.

Event 17: July 30, 2002

The F/EF-0 tornado formed 8.5 miles northeast of Merrill at 6:25 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado demolished a mobile home and snapped trees and tree limbs.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LINCOLN COUNTY

Event 18: September 30, 2002

The F/EF-2 tornado developed 8 miles west of Tomahawk around 6:30 pm CST. The tornado travelled approximately 3 miles to the northeast and reached a maximum width of 250 yards before dissipating four and a half miles northwest of Tomahawk around 6:35 pm CST. The tornado did significant damage, uprooting or snapping off thousands of trees along its path. A house in the path of the tornado suffered major structural damage, a camping trailer was thrown 300 feet, and a car was thrown into a tree coming to rest at least fifteen feet above the ground. Two barns were also destroyed.

Event 19: July 11, 2004

A brief F/EF-0 tornado touched down in Irma at 3:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

Event 20: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 21: July 11, 2004

A brief F/EF-0 tornado touched down 6 miles west of Tomahawk at 4:13 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. A pair of tornadoes touched down simultaneously west of the Tomahawk Airport.

Event 22: July 11, 2004

A brief F/EF-0 tornado touched down 4 miles west of Tomahawk at 4:40 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

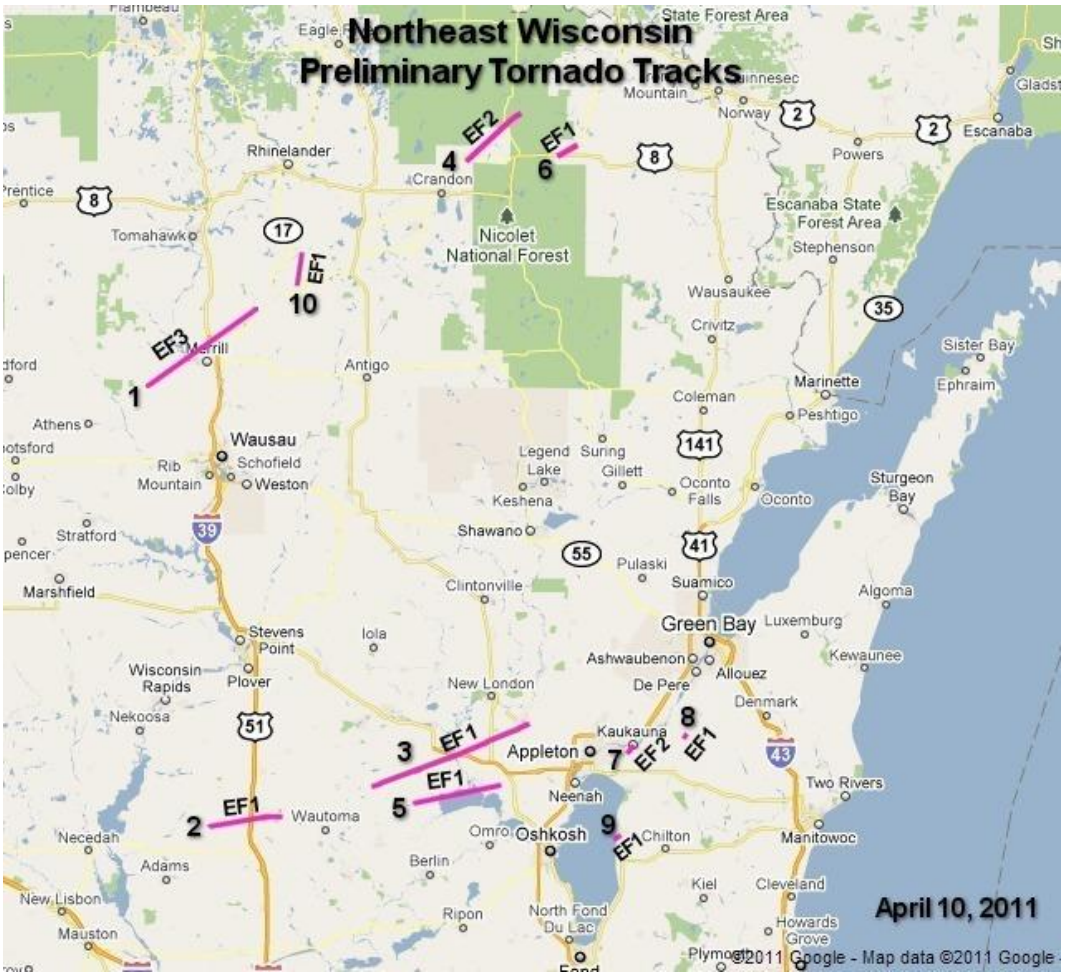
Event 23: April 10, 2011

The F/EF-3 tornado developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
LINCOLN COUNTY

Julia Berg
Near Merrill, WI

Samual L. Hall
Northeast of Merrill, WI



Event 24: July 9, 2013

A tornado (F/EF-0) touched down 0.5 NE of Schultz, or about six miles south of Irma in Lincoln County at 1:59 pm CST. The tornado moved east for about 4.1 miles and was 100 yards wide (average width was 75 yards). A few trees and power lines were knocked down. The tornado dissipated 3.9 miles west of Bloomville at 2:04 pm CST.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MANITOWOC COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	7	11	1957	1400	Whitelaw	1	-9999	-9999
2	4	24	1960	1600	7 SW Valders	1	33	1.0
3	6	30	1967	2349-2359	Chilton - 7 SW Valders	2	100	7.0
4	7	1	1967	0045	3 E Kiel	1	50	0.5
5	8	21	1972	1510	Goodwin - Two Rivers	1	50	12.0
6	5	9	1973	1550	2 N Reedsville	1	50	2.0
7	6	7	1978	1515	2 NW Francis Creek	2	-9999	-9999
8	8	4	1979	1000	Manitowoc	1	-9999	-9999
9	6	7	1980	0020	Valders	2	33	0.2
10	7	5	1980	0030	Valders	1	-9999	-9999
11	7	12	1987	1127-1130	1 S Francis Creek	1	75	0.2
12	8	4	1988	1435	1 E Reedsville - 2 N Cato	1	25	4.0
13	5	24	1989	2115	1 E Cooperstown	0	50	0.2
14	7	5	1994	1543-1555	3 NW Maribel - 0.5 W Cooperstown	4	150	3.5
15	7	5	1994	1553	2 SW Cooperstown	2	150	1.0
16	5	12	2000	1043	5 WNW St. Nazianz	0	50	0.1
17	5	23	2004	1747	2.7 E Reedsville	0	75	0.1
18	7	13	2004	1440-1452	1.4 NW Clark Mills to 2.8 SE Clark Mills	1	500	4.2
19	8	18	2005	2035-2039	6.5 SSW - 5.7 S Manitowoc	1	100	1.5
20	8	6	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larrabee	1	250	33.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MANITOWOC COUNTY

Event 1: July 11, 1957

The F/EF-1 tornado was first reported to touch down two and a half miles southeast of White Law around 2 pm CST. The tornado struck the Bernard Vogel farm, picking up 9 trees thirty feet high and pounded them into the ground. The tornado also broke windows and gouged the side of the house. A female neighbor of Bernard Vogel, who was seeking shelter, was pinned up to the wall of a silo as she was running towards the house.

Event 2: April 24, 1960

The F/EF-1 tornado touched down 7 miles southwest of Valders around 4 pm CST. The tornado was less than 50 yards wide and travelled about a mile before dissipating.

Event 3: June 30, 1967

The F/EF-2 tornado struck Chilton around 11:49 pm CST. The tornado then travelled to 7 miles east of Chilton before dissipating around 11:59 pm CST in extreme western Manitowoc County. The maximum width of the tornado was 100 yards. The city of Chilton took the brunt of the damage. At least five buildings were destroyed beyond repair. A trailer home tumbled end over end across a lot and a good share of trees were torn up.

Event 4: July 1, 1967

The F/EF-1 tornado struck 3 miles east of Kiel around 12:45 am CST. The tornado was 50 yards wide and travelled a half mile before dissipating.

Event 5: August 21, 1972

The F/EF-1 tornado touched down near Goodwin around 3:10 pm CST. The tornado was 50 yards wide and travelled approximately 12 miles to Two Rivers. The tornado struck the Van Koevering residence, uprooting five large trees in the yard. Tree and wire damage occurred along Highway 147 one mile south of Mishicot and near Highway 42 and near Shambeau Road near Two Rivers. The tornado moved eastward out over Lake Michigan.

Event 6: May 9, 1973

The F/EF-1 was reported 2 miles north of Reedsville around 3:50 pm CST. The tornado was 50 yards wide and travelled about two miles before dissipating. Several outbuildings were destroyed on the John Zimmerman farm on Highway 32. Damage was also reported on the Sullivan and Fenlon farms.

Event 7: June 7, 1978

The F/EF-2 tornado touched down briefly 2 miles northwest of Francis Creek around 3:15 pm CST. The path length and maximum width of the tornado were not documented.

Event 8: August 4, 1979

The tornado (F/EF-1) struck near Manitowoc around 10 am CST. Several buildings on a farm were destroyed. There was no documentation on path length or width of the tornado.

Event 9: June 7, 1980

A brief F/EF-2 tornado touched down in Valders around 12:20 am CST. The tornado was less than 50 yards wide and was on the ground for less than a quarter of a mile. The brief touchdown resulted in the destruction of a large modern barn and heavy farm equipment. Field crops were beaten down in the vicinity of the storm.

Event 10: July 5, 1980

The F/EF-1 tornado struck the farm of Warren Otto just south of Valders around 12:30 am CST. There was no documentation on path length or width of the tornado. The tornado destroyed a barn and machine shed, and farm machinery on the Warren Otto farm. Other farm buildings in the area also sustained minor damage.

Event 11: July 12, 1987

The F/EF-1 tornado touched down one mile south of Francis Creek around 11:27 am CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 11:30 am CST. One house and a garage were destroyed. A barn, shed and several trees were also damaged. Debris from the house was found as far as several miles away.

Event 12: August 4, 1988

The F/EF-1 tornado developed one mile east of Reedsville around 2:35 pm CST. The tornado was 25 yards wide and travelled 4 miles before dissipating two miles north of Cato around 2:45 pm CST. Two barns, one shed and several trees were damaged by the tornado.

Event 13: May 24, 1989

A brief tornado (F/EF-0) touched down one mile east of Cooperstown at 9:15 pm CST. The tornado was 50 yards wide and travelled two tenths of a mile before dissipating.

Event 14: July 5, 1994

A powerful F/EF-4 tornado cut a short but devastating path in northern Manitowoc County from two and one half miles northwest of Maribel around 3:43 pm CST to a half mile west of Cooperstown before dissipating around 3:55 pm CST. A second small tornado also developed two miles southwest of Cooperstown and carved out a minor damage path leveling a shed and tossing a grain box 300 yards. Much of the $2.1 million in damages was inflicted by the first tornado. The tornado damaged 26 homes, 19 vehicles and one mobile home. Four heifers and two sheep were also killed. One man was injured when he was struck by a 55 gallon drum while a woman suffered minor injuries when pieces of a stone foundation fell on her. The tornado travelled three and a half miles and reached 150 yards in diameter.

Event 15: July 5, 1994

On this date, the F/EF-2 tornado touched down 2 miles southwest of Cooperstown around 3:53 pm CST. The tornado travelled about a mile and reached a maximum width of 150 yards. A shed was leveled and a grain box was tossed about 300 yards. This was one of two tornadoes to hit Manitowoc County on this date. A stronger F/EF-4 tornado touched down two and a half miles northwest of Maribel and travelled to a half mile west of Cooperstown between 3:43 pm and 3:55 pm CST.

Event 16: May 12, 2000:

A brief (F/EF-0) tornado touched down 5 miles west northwest of St. Nazianz around 10:43 am CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No damage was reported with the tornado. The thunderstorms that produced the tornado were some of the most devastating thunderstorms to move across northeast Wisconsin. The combination of 100 mph straight line winds and 2 inch hail produced very serious damage in St. Nazianz. Thirty people were injured by the storm in Manitowoc County with 100 homes destroyed by the wind and hail.

Event 17: May 23, 2004

The F/EF-0 tornado touched down 2.7 miles east of Reedsville at 5:47 am CST. The tornado was 75 yards wide and was on the ground for a tenth of a mile. The tornado damaged shingles and siding on a house and snapped trees and large branches.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MANITOWOC COUNTY

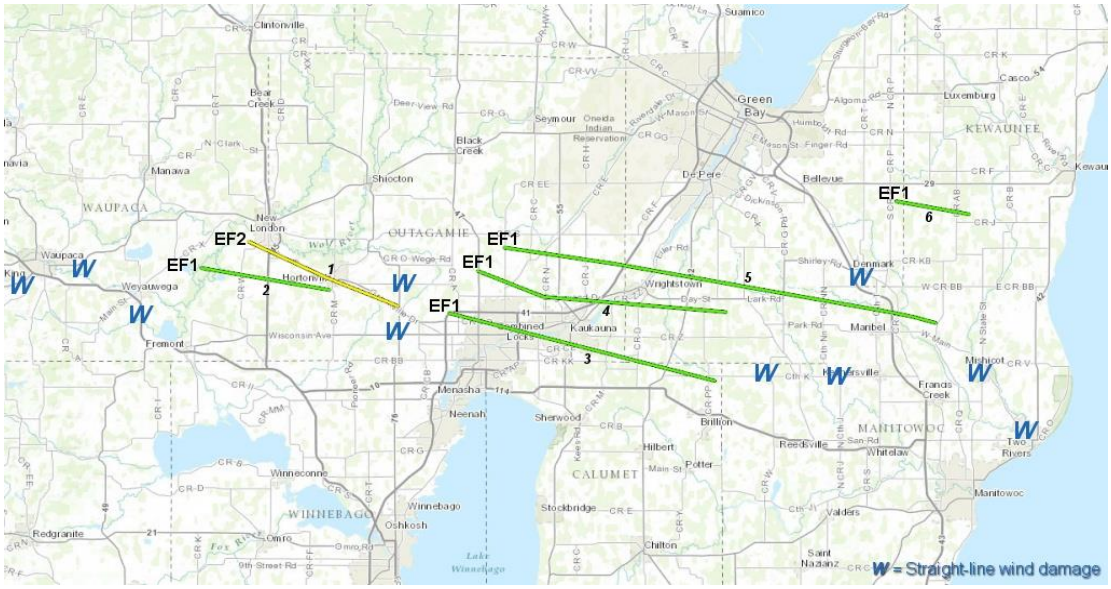
Event 18: July 13, 2004

The F/EF-1 tornado touched down 1.4 miles northwest of Clark Mills around 2:40 pm CST. The tornado was 500 yards wide and travelled just over four miles before dissipating 2.8 miles southeast of Clark Mills around 2:52 pm CST. The tornado caused extensive damage two farms. The tornado destroyed two garages, two barns, two milking parlors and three silos. The tornado also destroyed 45 calf hutches and about 80 acres of alfalfa. The tornado snapped and uprooted trees and carried a calf about a half a mile away where it was found still alive.

Event 19: August 18, 2005

The F/EF-1 tornado developed six and a half miles south southwest of Manitowoc at 8:35 pm CST. The tornado was 100 yards wide and travelled one and a half miles before dissipating 5.7 miles south of Manitowoc at 8:39 pm CST. The tornado damaged a farm, snapped or uprooted around 50 large trees while several hay wagons and trailers were overturned. A concrete silo was destroyed and another damaged. The roof of a barn sustained extensive damage. Part of the barn and silo were found in trees a third of a mile away. The tornado was part of a record tornado outbreak in Wisconsin.

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 20: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARATHON COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	25	1950	2110	2 W Unity - 3 NE Abbotsford	2	20	3.0
2	6	20	1954	0230	Rothschild to 6 NE Mosinee	2	70	6.3
3	6	4	1958	1930	6 SE Chippewa Falls to 2 NW Athens	3	880	59.2
4	5	4	1959	1030	Wausau	1	200	1.0
5	11	15	1960	1425	Chili to near Rib Mountain	2	100	36.0
6	9	3	1961	0010	Fenwood	2	35	2.0
7	9	3	1961	0100	Athens	1	35	2.0
8	5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	2	500	12.0
9	8	19	1968	1730	4 W Fenwood - 11 E Fenwood	2	75	14.3
10	9	28	1971	1415-1605	3 NE Brokaw - 6 NE Hogarty	3	200	18.0
11	9	28	1971	1600	1 NE Abbotsford - Merrill	3	300	11.6
12	6	18	1973	1100	2 W Athens	1	200	2.0
13	4	12	1974	1405	5 W Athens	2	150	2.0
14	6	13	1976	2000-2010	2 W Hogarty - Elton	1	50	4.0
15	8	31	1977	1815	1 SW Stratford - Wausau	3	1000	27.0
16	7	15	1982	1915	Mayflower Lake	1	50	0.7
17	7	3	1983	1735	6 W Unity - Cherokee	2	55	6.0
18	6	26	1984	1655	13 N Wausau - Texas	1	100	8.0
19	9	24	1984	1650	13.5 WSW Wausau - Wausau	2	150	12.0
20	7	2	1987	1710	Pike Lake	1	75	0.2
21	5	8	1988	1710	4.5 SW Hadler - Rib Falls	2	250	13.0
22	9	19	1988	1637	1 W Edgar	0	25	0.1
23	6	12	1990	1835	2 W Stratford	1	25	0.1
24	7	19	1992	1554	2 WSW Stratford	1	400	0.3
25	7	8	1994	1400	3 NW Elderon	1	75	0.2
26	8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	2	200	2.5
27	8	7	1996	0146-0147	1 N - 1.2 NE Stratford	1	100	0.2
28	8	7	1996	0219-0221	4 SW Shantytown - Shantytown	1	100	0.4
29	7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	2	100	2.0
30	7	16	1997	1500-1502	4 SW - 4.2 SW Hogarty	0	75	0.2
31	7	16	1997	1500-1501	3 N Sunset	0	15	0.1
32	7	16	1997	1509-1511	2 NE - 1.8 NE Ringle	1	50	0.2
33	7	16	1997	1520-1522	2 N - 1.8 N Elderon	0	75	0.2
34	5	31	1998	0020-0021	4 WSW Mosinee	0	50	0.2
35	4	18	2002	1813-1827	3 SE Stratford - 6 NW Mosinee	1	100	14.0
36	4	18	2002	1832	6 SSW Wausau Airport	0	25	0.1
37	7	30	2002	1822-1828	3 W - 0.8 W Central Wisconsin Airport	0	100	2.2
38	9	2	2002	1704-1706	5.2 W - 5 W Athens	0	75	0.2
39	9	2	2002	1735-1743	6 NW Wausau - 4 NE Wausau	1	200	5.0
40	6	4	2005	1527-1529	4 W - 4.5 WNW Edgar	0	75	1.2
41	6	4	2005	1539-1542	1 W - 1.5 NW Athens	0	100	1.3
42	6	4	2005	1706	4 S Athens	0	25	0.1
43	6	4	2005	1720	3 W Marathon	0	25	0.1
44	6	4	2005	1918	7 S Hogarty	0	25	0.1
45	6	10	2005	1303	4 W Mosinee	0	20	0.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARATHON COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
46	6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	2	225	7.3
47	5	25	2008	2000-2001	3 ENE Knowlton	0	20	0.1
48	7	29	2008	1527	3.6 NW Granite Heights	0	15	0.1
49	7	29	2008	1559-1600	6.3 NNW of Kalinke	0	25	0.1
50	4	10	2011	1708-1741	2 N Hamburg – 1 SW Bloomville	0	150	21.3
51	5	24	2012	1801-1807	3.7 SSE – 4.8 ENE Marathon	0	50	4.8

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARATHON COUNTY

Event 1: June 25, 1950

The F/EF-2 tornado touched down 3 miles west of Colby and travelled to three miles northeast of Abbotsford around 9 pm CST. There was no additional information on this tornado. The tornado travelled approximately 3 miles with a maximum width of 20 yards.

Event 2: June 20, 1954

The F/EF-2 tornado developed around 2:30 am CST in Rothschild. The tornado travelled approximately 6.3 miles and dissipated six miles northeast of Mosinee around 2:40 am CST. The maximum width of the tornado was 70 yards. Another tornado was reported in Brothertown in Calumet County around 4 am CST.

Event 3: June 4, 1958

According to several sources, it appears that there was a long tracked F/EF-3 tornado that developed 6 miles southeast of Chippewa Falls in Chippewa County around 7:30 pm CST. The tornado then moved to the east northeast for just over 59 miles before dissipating 2 miles northwest of Athens in Marathon County around 8:06 pm CST. The tornado reached a maximum width of 880 yards. Newspaper accounts indicated there were three separate tornadoes during this event. The tornado or tornadoes killed 28 people across western Wisconsin. Four people died in Chippewa Falls and near Menominie while two deaths were reported Knapp and Boyd in western Wisconsin.

Event 4: May 4, 1959

The F/EF-1 tornado was reported to touch down near Wausau around 10:30 am CST. The tornado was 200 yards wide and travelled a mile before dissipating near Wausau.

Event 5: November 15, 1960

The F/EF-2 tornado developed near Chili in southeast Clark County. The tornado travelled for 36 miles into central Marathon County around 2:25 pm CST where the tornado dissipated near Rib Mountain. The tornado reached a maximum width of 100 yards. Main damage with the storm occurred near Chili and near the Town of Rib Mountain.

Event 6: September 3, 1961

The F/EF-2 tornado touched down near Fenwood around 12:10 am CST and travelled about 2 miles. The tornado was 35 yards wide. Damage was confined to farm buildings and crops in rural western Marathon County.

Event 7: September 3, 1961

The F/EF-1 tornado touched down near Athens around 1 am CST. The tornado was 35 yards wide and was on the ground for 2 miles.

Event 8: May 8, 1964

The F/EF-2 tornado touched down 7 miles east southeast of Knowlton around 5:50 pm CST. The tornado travelled about twelve miles to 5 miles west of Elderon. The tornado had a maximum width of five hundred yards.

Event 9: August 19, 1968

The F/EF-2 tornado form about 4 miles east of Fenwood near County Trunk P just west of Highway 97 around 5:30 pm CST. The tornado travelled just over fourteen miles to the east before dissipating about eleven miles east of Fenwood. The maximum width of the tornado was 75 yards. Twenty-five barns mostly on the north side of County Trunk P were flattened. Damage was estimated at more than one million dollars.

Event 10: September 28, 1971

A cold front moving through the state triggered scattered thunderstorms across the state. On this date, two long tracked F/EF-3 tornadoes were noted from near Stanley in western Wisconsin to Oconto County. The first tornado touched down 23 miles northeast of Eau Claire just south of Boyd and Stanley in Chippewa County around 2 pm CST. The tornado continued just south of Owen, north of Curtiss and south of Dorchester in Clark County. The tornado then moved into Marathon County south of Athens then weakened over Hamburg before finally dissipating just north of Merrill in Lincoln County around 4:05 pm CST. The tornado reached a maximum width of 300 yards and travelled 75 miles before dissipating. Damage was estimated near two million dollars.

Event 11: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 12: June 18, 1973

The F/EF-1 tornado touched down on the Brunke Farm 2 miles west of Athens around 11 am CST. The tornado was 200 yards wide and travelled east for two miles before dissipating.

Event 13: April 12, 1974

The F/EF-2 tornado briefly touched down 5 miles west of Athens around 2:05 pm CST. The tornado travelled 2 miles and reached a maximum width of 150 yards before dissipating. One barn was destroyed and wires down. Two horses in the field were rolled over by the tornado.

Event 14: June 13, 1976

The F/EF-1 tornado hit first about two miles west of Hogarty around 8 pm CST. The tornado skipped along and moved east northeast into extreme southwest Langlade County near Elmhurst and then continued to near Elton before dissipating at 8:10 pm. The tornado was 50 yards wide and travelled 21.3 miles. Some sheds were destroyed while windows of some buildings were damaged. Tree limbs and power lines were downed by the tornado.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARATHON COUNTY

Event 15: August 31, 1977

On the evening of the 31st, a devastating F/EF-3 tornado spun out a 27 mile path of destruction across Marathon County around 6:15 pm CST. The first sighting of the tornado came seven miles southwest of Fenwood. The funnel base was described as reaching tree top levels as it downed barns in the area. The tornado continued to near Marathon City where more barns were destroyed. The tornado caused extensive damage to Ginseng crops in the area. In Rib Mountain, 15 homes were demolished and 30 others were severely damaged. The storm moved into southwest Wausau damaging a mill and lumber yard. As the funnel cloud moved across the southern end of Wausau, brief touchdowns were noted at Grand Avenue and at Tenth and Manson Streets. The funnel lifted and moved eastward out of the city limits of Wausau, touching down for a final time on Linden Street. Barns and sheds were destroyed on Linden. The tornado reached a maximum width of a thousand yards. Property damage was close to two million dollars.

Event 16: July 15, 1982

The F/EF-1 tornado swept southeast from May Flower Lake into rural areas at the south end of the lake in Marathon County around 7:15 pm CST. The tornado was 50 yards wide and travelled three quarters of a mile. Several trees were downed and one residence was damaged.

Event 17: July 3, 1983

The F/EF-2 tornado was first spotted near a home 6 miles west of Unity in Clark County around 5:35 pm CST. The tornado skipped across Clark County, skirting just north of Unity and crossed Highway 13 into Marathon County. In Marathon County, the tornado struck a farm just east of Highway 13, flipping a truck and camper as well as ripping a shed off its foundation. The tornado then struck a farm one mile east of Colby and just south of Highway N destroying many trees. The next farm to the east was struck and two hay wagons were flipped over and a chimney was knocked off. The tornado hit a farm three miles east of Colby and one mile south of Highway N. A large barn was pushed off its foundation. The tornado moved across Highway F just south of Cherokee, and into an 18 acre wooded lot destroying fifty large trees. Finally, a farm just east of Cherokee and south of Highway N took off the top of a silo. There were no further reports to the east. The tornado travelled approximately 6 miles and had a maximum width of fifty-five yards.

Event 18: June 26, 1984

The F/EF-1 tornado touched 13 miles north of Wausau around 4:55 pm CST. The tornado was 100 yards wide and skipped eastward for 8 miles before dissipating in the town of Texas. The tornado damaged four homes and three farm buildings. It also destroyed a few sheds and uprooted trees.

Event 19: September 24, 1984

The F/EF-2 tornado touched down thirteen and a half miles west southwest of Wausau around 4:50 pm CST, or one mile south of Highway P and one mile west of Highway 107. The tornado was 150 yards wide and travelled 12 miles before lifting on the east side of the Wisconsin River near Wausau. The tornado caused $2.2 million dollars in damage in the townships of Emmett, Mosinee, Marathon, and Rib Mountain. Three homes were destroyed, eight sustained major damage and several barns and sheds were leveled. Numerous trees were reported down. The storm was accompanied by baseball size hail one mile northeast of Rothschild.

Event 20: July 2, 1987

A brief tornado touched down just east of Pike Lake around 5:10 pm CST. The F/EF-1 tornado was 75 yards wide and travelled two tenths of a mile before dissipating around 5:15 pm CST. Numerous trees were twisted and knocked down causing damage to seven homes, a boat trailer and one boat foundation.

Event 21: May 8, 1988

The F/EF-2 tornado developed four and a half miles southwest of Hadler around 5:10 pm CST. The tornado travelled 13 miles and reached a maximum width of 250 yards before dissipating in Rib Falls. Two people were injured in the town of Emmet when their mobile home trailer was rolled upside down. In all, three mobile homes, six large barns, three machine sheds and silos were destroyed with numerous buildings damaged. Thirty-nine acres of ginseng racks on sixteen farms were knocked off their posts causing $450,000 in damage. The total cost of the tornado in Marathon County was over one million dollars in damage.

Event 22: September 19, 1988

A brief tornado (F/EF-0) developed one mile west of Edgar at 4:37 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 23: June 12, 1990

The F/EF-1 tornado hit a farm 2 miles west of Stratford around 6:35 pm CST. The tornado was 25 yards wide and was only on the ground for a tenth of a mile. According to newspaper reports, there was damage to some farm structures.

Event 24: July 19, 1992

The F/EF-1 tornado formed 2 miles west southwest of Stratford around 3:54 pm CST. The tornado was 400 yards wide and was on the ground for only a quarter of a mile. The damage from the tornado included: a destroyed barn, two houses and one garage damaged while several trees were downed.

Event 25: July 8, 1994

The F/EF-1 tornado touched 3 miles northwest of Elderon around 2 pm CST. The tornado was 75 yards wide and only travelled two tenths of a mile. The tornado moved a garage off its foundation and wrecked a house roof and shed three miles northwest of Elderon.

Event 26: August 7, 1996

The F/EF-2 tornado touched down six and a half miles north of Stratford around 1:45 am CST, tearing the top portion of a home off, flattened a garage, and snapped off several large trees. The tornado continued east northeast for two and a half miles and reached a maximum width of 200 yards before dissipating two and a half miles north northwest of Fenwood around 1:49 am CST. As the storm moved east, there was damage to a storage shed and thirty trees on a farm. A dozen of Ginseng shelters were thrown about. The tornado was not on the ground for the entire path.

Event 27: August 7, 1996

A brief F/EF-1 tornado touched down one mile north of Stratford around 1:46 am CST. The tornado was 100 yards wide and only travelled two tenths of a mile before dissipating 1.2 miles northeast of Stratford round 1:47 am CST. The tornado snapped off numerous large trees, some of which fell on the top of homes. In addition: a barn was flattened, a semi-trailer was flipped over and a car moved 75 feet.

Event 28: August 7, 1996

The F/EF-1 tornado touched down four tenths of a mile southwest of Shantytown around 2:19 am CST. The tornado was 100 yards wide and travelled nearly a half mile to Shantytown before dissipating around 2:21 am CST. The tornado tore a 100 yard swath through a cornfield. In Shantytown, the tornado tore the roof and garage off a home. Pieces of the roof were found one-quarter of a mile away from the home.

Event 29: July 16, 1997

The F/EF-2 tornado touched down eight and a half miles northeast of Nutterville around 2:40 pm CST. The storm travelled just over three miles and reached a maximum width of 100 yards before dissipating 6.9 miles northeast of Nutterville around 2:45 pm CST. The tornado damaged several homes, vehicles and silos, and destroyed numerous barns, sheds and crops. Twenty head of dairy cattle were killed or had to be destroyed. There were two other tornadoes with this tornadic supercell. Total damage to crops and property from the five tornadoes, hail and straight-line winds in Marathon County alone topped $10 million.

Event 30: July 16, 1997

The F/EF-0 tornado developed 4 miles southwest of Hogarty around 3 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 4.2 miles southwest of Hogarty around 3:01 pm CST.

Event 31: July 16, 1997

The F/EF-0 tornado touched down 3 miles north of Sunset around 3 pm CST. The tornado was 15 yards wide and was on the ground for a tenth of a mile before dissipating at 3:01 pm CST.

Event 32: July 16, 1997

The F/EF-1 tornado briefly touched down two miles northeast of Ringle around 3:09 pm CST. The tornado was 50 yards wide and only travelled two tenths of a mile before dissipating 1.8 miles northeast of Ringle around 3:11 pm CST.

Event 33: July 16, 1997

The F/EF-0 tornado touched down 2 miles north of Elderon around 3:20 pm CST. The tornado was 75 yards wide and travelled two tenths of a mile before dissipating 1.8 miles north of Elderon around 3:22 pm CST.

Event 34: May 31, 1998

A brief F/EF-0 tornado touched down 4 miles west southwest of Mosinee at 12:20 am CST. The tornado was 50 yards wide and was on the ground for two tenths of a mile before it dissipated 3.8 miles west southwest of Mosinee at 12:21 am CST.

Event 35: April 18, 2002

The F/EF-1 tornado formed 3 miles southeast of Stratford around 6:13 pm CST. The tornado was 100 yards wide and travelled 14 miles before dissipating 6 miles northwest of Mosinee around 6:27 pm CST. The tornado downed hundreds of trees, while numerous barns and farm sheds were destroyed by a combination of the tornado and straight line winds. Plows had to be used to clear trees from some of the roads.

Event 36: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles south southwest of the Wausau Airport around 6:32 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 37: July 30, 2002

The F/EF-0 tornado developed 3 miles west of the Central Wisconsin Airport at 6:22 pm CST. The tornado was 100 yards wide and travelled just over 2 miles on the ground before dissipating eight tenths of a mile west of the Central Wisconsin Airport at 6:28 pm CST. The tornado caused significant tree damage on a hill east of the Wisconsin River.

Event 38: September 2, 2002

The F/EF-0 tornado touched down 5.2 miles west of Athens at 5:04 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile before dissipating at 5:06 pm CST. The tornado caused minimal damage.

Event 39: September 2, 2002

The F/EF-1 tornado developed 6 miles northwest of Wausau around 5:35 pm CST. The tornado was 200 yards wide and was on the ground for five miles before dissipating 4 miles northeast of Wausau around 5:43 pm CST. The tornado destroyed two barns, a garage and a shed. It also snapped hundreds of trees, heavily damaged 6 homes and caused minor damage to 25 others. At least two vehicles traveling on Highway 51 were blown off the road. A trailer being towed by one of the vehicles was blown over and a large road sign hit the vehicle. The driver was injured and transported to the hospital.

Event 40: June 4, 2005

The F/EF-0 touched down 4 miles west of Edgar at 3:27 pm CST. The tornado was 75 yards wide and was on the ground for 1.2 miles before dissipating four and a half miles west northwest of Edgar at 3:29 pm CST. No damage was noted in the month storm report for this tornado.

Event 41: June 4, 2005

The F/EF-0 touched down a mile west of Athens at 3:39 pm CST. The tornado was 100 yards wide and was on the ground for 1.3 miles before the tornado dissipated a mile and a half northwest of Athens at 3:42 pm CST. The tornado downed some trees, flattened a barn and tore the roof from another barn.

Event 42: June 4, 2005

The F/EF-0 touched down 4 miles south of Athens at 5:06 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 43: June 4, 2005

The F/EF-0 touched down 3 miles west of Marathon at 5:20 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 44: June 4, 2005

The F/EF-0 touched down 7 miles south of Hogarty at 7:18 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The monthly local storm report did not indicate any damage from this tornado.

Event 45: June 10, 2005

The F/EF-0 tornado touched down 4 miles west of Mosinee at 1:03 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was noted in the monthly storm data.

Event 46: June 7, 2007

There were five tornadoes on this date across north central and northeast Wisconsin. The F/EF-2 tornado developed nine tenths of a mile west Peplin in Marathon County around 3:01 pm CST. The tornado travelled just over 7 miles and reached a maximum width of 225 yards before it dissipated nearly a mile north of Pike Lane around 3:14 pm CST. At least 8 homes, 10 barns, and numerous trees were damaged.

Event 47: May 25, 2008

The F/EF-0 tornado touched down 3 miles east northeast of Knowlton at 8 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile before dissipating at 8:01 pm CST. Several apple trees were damaged in a narrow path. A pine tree fell on a shed as well. The tornado was on the ground for less than 30 seconds.

Event 48: July 29, 2008

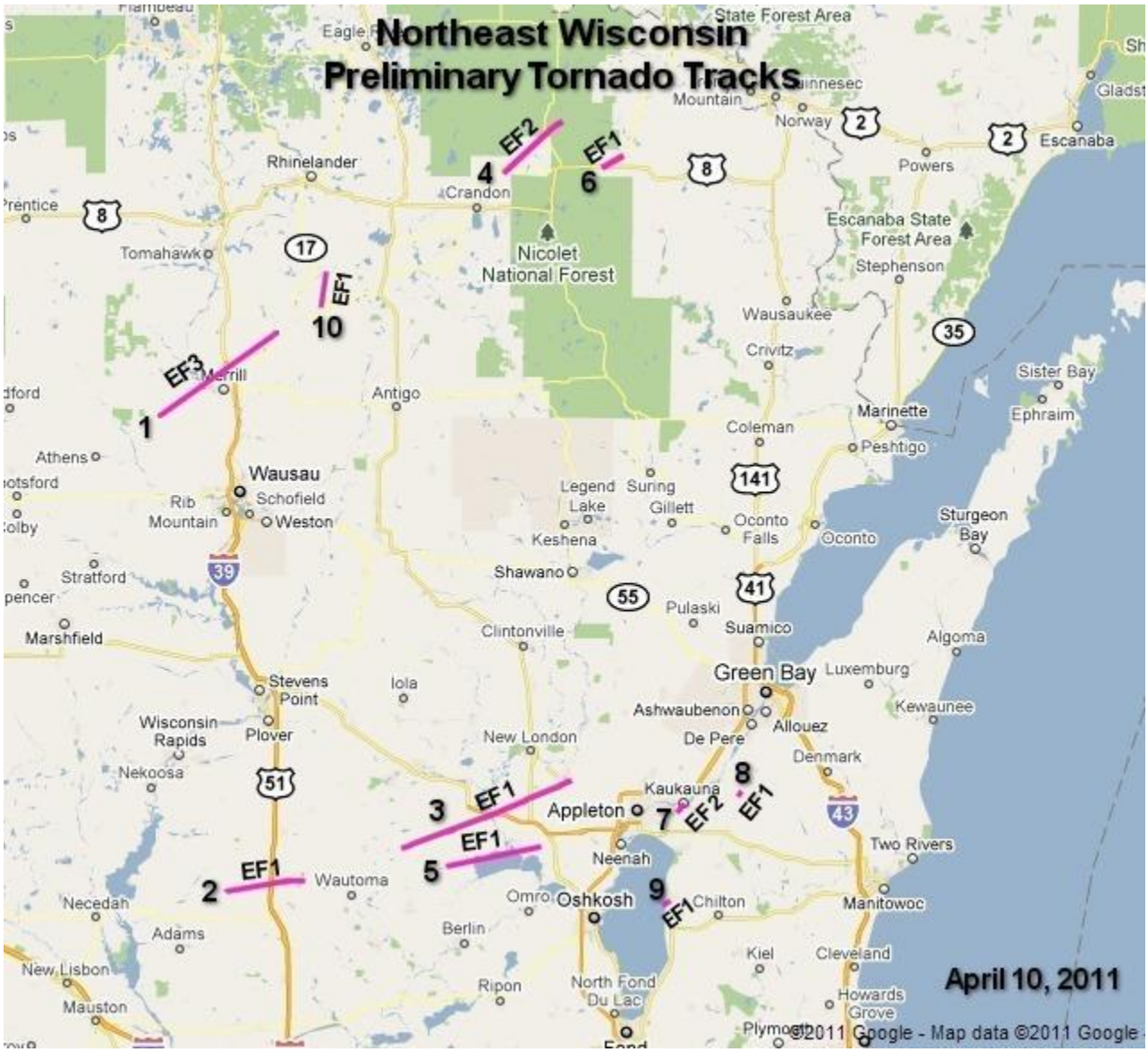
The F/EF-0 tornado briefly touched down 3.6 miles northwest of Granite Heights in Marathon County at 3:27 pm CST. The tornado was 15 yards wide and travelled a tenth of a mile. Law enforcement witnessed the brief tornado touchdown north of Brokaw near the Lincoln County border. No damage was reported.

Event 49: July 29, 2008

The F/EF-0 tornado briefly touched down 6.2 miles north northwest of Kalinke in Marathon County at 3:59 pm CST. The tornado was 25 yards wide and travelled a quarter of a mile before dissipating at 4 pm CST. The tornado touched down just south of County Line Road near County Road Q. Several trees in an open field were knocked over.

Event 50: April 10, 2011

The F/EF-3 tornado developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards.



Event 51: May 24, 2012

The F/EF-0 tornado formed 3.7 miles south southeast of Marathon at 601 pm CST and rapidly move northeast before dissipating 4.8 miles east northeast of Marathon at 6:07 pm. About 100 trees sustained large broken branches or were snapped by the tornado. No structures were damaged. The average path width was 50 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARINETTE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	17	1958	1540	3 W - 2 NE Wausaukee	2	80	4.7
2	8	30	1958	1526	6 SE Wausaukee	1	100	1.5
3	7	8	1959	1654	Niagara	2	50	1.0
4	6	9	1964	1500	Pound	2	50	3.0
5	6	30	1968	0445	3 S Pembine	1	100	0.5
6	8	19	1968	1610	3 SW Pound - Marinette	4	75	21.8
7	7	14	1970	1400	McAllister	1	33	1.0
8	6	18	1971	1345	5 W Marinette	1	100	4.3
9	9	28	1971	1715-1725	Hewitt - Middle Inlet	3	200	15.0
10	9	16	1972	1605	4 NW Wabeno east southeast into UP	2	200	53.1
11	6	3	1973	1815	2 NE Amberg	1	100	4.5
12	4	21	1974	1525	4 NNW Crivitz	2	200	4.0
13	6	20	1979	1430	Goodman	1	-9999	-9999
14	7	14	1984	2035	1 SE Peshtigo	0	25	0.1
15	7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	3	100	8.0
16	8	27	1994	2141	1.5 S Wausaukee - 3 SE Wausaukee	1	75	4.0
17	7	27	2000	1907-1910	1.5 W - 1.1 WSW Harmony	0	50	0.4
18	7	27	2000	1930	1.7 W Peshtigo	0	25	0.1
19	6	7	2007	1637-1640	0.5 W -2.5 ENE Cedarville	1	200	3.0
20	6	7	2007	1716-1720	3.5 W Harmony to 1.2 N Harmony	1	200	3.6
21	8	19	2011	1545-1556	2.9 NW – 5.2 ESE Wausaukee	1	250	7.6

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MARINETTE COUNTY

Event 1: May 17, 1958

The F/EF-2 tornado developed 3 miles west of Wausaukee around 3:40 pm CST and travelled northeast for 4.7 miles before dissipating 2 miles northeast of Wausaukee. The tornado reached a maximum width of 80 yards.

Event 2: August 30, 1958

The F/EF-1 tornado was reported 6 miles southeast of Wausaukee around 3:26 pm CST. The tornado was 100 yards wide and travelled a mile before dissipating.

Event 3: July 8, 1959

The F/EF-2 tornado touched down in Niagara around 4:54 pm CST. The tornado travelled approximately one mile and had a maximum width of 50 yards. The tornado downed trees, flattened a garage, tore the roof off a house, bounced an automobile off a house, and hit a tavern. There were three injuries when the twister picked up their trailer home and dumped it 100 feet away.

Event 4: June 9, 1964

The F/EF-2 tornado touched down near Pound around 3 pm CST. The tornado travelled approximately 3 miles and had a maximum width of 50 yards.

Event 5: June 30, 1968

The F/EF-1 tornado touched down on the Zern property 3 miles south of Pembine around 4:45 am CST. The tornado was 100 yards wide and travelled on the ground for a half mile. Trees and a garage were destroyed by the tornado.

Event 6: August 19, 1968

The funnel was first observed at about 4 pm CST near Breed, but remained aloft until three miles southwest of Pound. The F/EF-4 tornado developed 3 miles southwest of Pound around 4:10 pm CST and travelled nearly 22 miles before dissipating in Marinette. The tornado moved east about 3 miles south of Highway 53, destroying farms near Pound and again just south of Marinette. Large hail three inches in diameter fell north of the tornado track. Two elderly brothers, John and Cecil Maloney were fatally injured as their farmhouse near Pound blew apart. A third brother James, who was in bed when the winds struck was found on some bed springs in a nearby cornfield. He was hospitalized in satisfactory condition. Two more people were injured at Marinette when the tornado struck near the airport. Nearly twenty counties were included in a series of thunderstorm warnings issued by the Weather Bureau.

Event 7: July 14, 1970

The F/EF-1 tornado was reported in McAllister around 2 pm CST. The tornado was less than 50 yards wide and travelled a mile. The tornado damaged a home and uprooted several trees.

Event 8: June 18, 1971

The F/EF-1 tornado struck about 5 miles west of Marinette, near Highway 64 and Right O Way Road around 1:45 pm CST. The tornado was 100 yards wide and travelled just over four miles before it dissipated. Many trees were uprooted and several resort and farm buildings were damaged.

Event 9: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 10: September 16, 1972

The F/EF-2 tornado formed 4 miles northwest of Wabeno in Forest County around 4:05 pm CST. The tornado tracked south of Athelstane, north of Wausaukee and into upper Michigan. The track reentered Wisconsin about 2 miles north of McAllister and cross over the Wisconsin Public Service Corporation Grand Rapids Power Dam. The tornado reentered upper Michigan 3 miles southwest of Ingalls around 5:15 pm CST moving across Highway 41 about two miles north of Wallace. The final path length of the tornado was 53 miles with the tornado reaching a maximum width of 200 yards. Several barns were flattened in the Wabeno area, otherwise damage was mainly to woods and overhead wires.

Event 11: June 3, 1973

The F/EF-1 tornado first touched down just north of Amberg around 6:15 pm CST. The tornado was 100 yards wide and moved four and a half miles across Marinette County before dissipating. The tornado upended several house trailers and destroyed several wooden structures at the Sparkling Springs Campground just north of Amberg. Several acres of trees were leveled at the campsite and northeastward to Assembly of God Church in Beecher Township.

Event 12: April 21, 1974

The F/EF-2 tornado touched down 4 miles north northwest of Crivitz around 3:25 pm CST. The tornado was 200 yards wide and travelled four miles before dissipating.

Event 13: June 20, 1979

Goodman was hit by the F/EF-1 tornado around 2:30 pm CST. The tornado tore the roof off Louisiana Pacific Corps Seaway Division. Clarence Richards, personnel manager said 100 to 125 people were working inside the building when the tornado struck. Company officials said some of the workers were trapped when the roof collapsed. Only one injury was reported. There was no documentation on path length or width of the tornado.

Event 14: July 14, 1984

The F/EF-0 touched down near County trunks BB and B one mile southeast of Peshtigo around 8:35 pm CST. The tornado was 25 yards wide and travelled only a tenth of a mile. Numerous trees and power lines were downed and there was minor damage to a home.

Event 15: July 4, 1986

The F/EF-3 tornado touched down 2 miles south of Niagara at Highway 8 and Highway 141 around 7 pm CST. The tornado demolished a building next to a restaurant and slashed some trees. The tornado then skipped east-southeast and destroyed a home and garage, carrying its roof a half mile away. The tornado crossed the Menominee River and into the Carney-Nadeau area of Menominee County, Michigan around 7:25 pm CST. The tornado travelled 8 miles and was 100 yards wide.

Event 16: August 27, 1994

The F/EF-1 tornado developed a mile and half south of Wausaukee around 9:41 pm CST. The tornado was 75 yards wide and was on the ground for 4 miles before dissipating three miles southeast of Wausaukee around 9:50 pm CST.

Event 17: July 27, 2000

The F/EF-0 tornado first touched down 1.5 miles west of Harmony at 7:07 pm CST. The tornado was 50 yards wide and was on the ground for four tenths of a mile before it dissipated 1.1 miles west southwest of Harmony at 7:10 pm CST. Another tornado (F/EF-0) occurred at 7:30 pm CST 1.7 miles west of Peshtigo. The first tornado report was received even before the storm became visible on radar.

Event 18: July 27, 2000

A brief F/EF-0 tornado touched down 1.7 miles west of Peshtigo in Marinette County at 7:30 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile.

Event 19: June 7, 2007

The F/EF-1 tornado developed a half mile west of Cedarville around 4:37 pm CST. The tornado was 200 yards wide and travelled three miles before it dissipated 2.5 miles east northeast of Cedarville around 4:40 pm CST. The tornado tore a significant portion of the roof from one home, snapped a few trees and uprooted numerous others. A manufactured home was moved off its foundation and down an embankment.

Event 20: June 7, 2007

The F/EF-1 tornado developed three and a half miles west of Harmony around 5:16 pm CST. The tornado was 200 yards wide and travelled 3.6 miles before dissipating 1.2 miles north of Harmony, or 2.9 miles south-southwest of Porterfield around 5:20 pm CST. One person was injured by flying debris as she sought refuge in their home. The tornado flattened a barn, tore a significant part of a sheet metal roof from an outbuilding, blew in a garage door and tore part of a roof deck over the garage from a home that was under construction.

Event 21: August 19, 2011

The F/EF-1 tornado quickly developed northwest of the city of Wausaukee during the late afternoon and moved southeast for nearly eight miles before dissipating. The twister touched down near Long Lake, snapping or uprooting hundreds of trees as it moved towards Wausaukee. A mobile home near Long Lake was heavily damaged by fallen trees, but the occupants escaped without injury. As the tornado moved into Wausaukee, it leveled another mobile home killing a 46 year old male. Two additional buildings on the property sustained damage including a house that lost part of its roof. Two semi-trailers on the property were blown over. The tornado continued southeast, damaging a baseball field and hundreds of additional trees on the east side of Wausaukee. The tornado reached the Menominee River and briefly crossed into Upper Michigan before moving back into Wisconsin and dissipating near Highway 180. One tree fell on a home near Deer Lane Road.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MENOMINEE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	9	28	1971	1600-1720	Hewitt (Marathon Co) to near Mountain	2	300	78.4
2	4	27	1984	1455-1540	Union (Waupaca Co) - Legend Lake	3	440	32.0
3	6	7	2007	1532-1548	4 W to 9.4 W Zoar Settlement	2	700	12.7

Event 1: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 2: April 27, 1984

Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

Event 3: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
MENOMINEE COUNTY

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OCONTO COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	4	1966	1900	Gillett - 2 NE Oconto Falls	2	50	4.9
2	6	4	1966	1900	Suring	2	50	5.0
3	6	26	1969	1115-1130	3 W Seymour to 8 W Sobieski	3	100	15.3
4	9	28	1971	1620-1720	Hewitt - Middle Inlet	3	300	78.4
5	6	14	1974	1610	5 NW Gillett	1	30	0.2
6	6	13	1976	2015	Oconto Falls	1	50	0.2
7	6	16	1979	0930	Oconto Falls - 2 NE Lena	2	100	15.2
8	5	30	1980	1520	Oconto	1	50	1.0
9	4	25	1996	1755-1757	2 W Pensaukee	0	40	0.1
10	6	7	2007	1531-1618	2 ENE Mattoon - 9.5 ENE Lakewood	2	1320	19.1
11	7	9	2013	1850-1854	4.4 NNE Oconto to 5.2 NNE Oconto	0	100	1.6
12	7	6	2015	1656-1703	2.2 ENE Gillette – 2.6 SSW Kelly Brook	0	50	2.3

Event 1: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto around 7 pm CST. The tornado was 50 yards wide. Another F/EF-2 tornado was reported near Suring around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 2: June 4, 1966

There were two F/EF-2 tornadoes reported on this date in Oconto County. The F/EF-2 tornado was reported near Suring around 7 pm CST. The tornado was 50 yards wide and travelled for 2 miles before dissipating. Another F/EF-2 tornado touched down near Gillett and then travelled nearly 5 miles to two miles northeast of Oconto Falls in Oconto County around 7 pm CST. There were a total of three tornadoes across Oconto County on this night. The tornadoes brought 37 barns and many trees and wires down across the county near Gillett and Suring.

Event 3: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OCONTO COUNTY

Event 4: September 28, 1971

The second F/EF-3 tornado developed over the town of Hewitt northeast of Wausau in Marathon County around 4 pm CST. The town hall and four barns were destroyed in Hewitt. The tornado continued east northeast into Langlade County, passing about 6 miles south of Antigo and moved across the extreme northwest corner of Menominee County just south of White Lake. The tornado moved into Oconto County near Mountain, and then into Marinette County to Middle Inlet where the tornado dissipated around 5:20 pm CST. The tornado travelled 78 miles and reached a maximum width of 300 yards. The most severe damage occurred at Mountain where damage to buildings and trailers were estimated at $200,000 dollars. Extensive damage to property and trees was reported in the Boulder Lake area where the lake level was reported to have dropped 5 inches. One person was injured at White Lake and four injuries were noted at Mountain, none seriously.

Event 5: June 14, 1974

On the afternoon of June 14th, the F/EF-1 tornado touched down 5 miles northwest of Gillett around 4:10 pm CST. The tornado was 30 yards wide and travelled only a quarter of a mile. The tornado downed trees and power lines and threw a chopper wagon thirty yards.

Event 6: June 13, 1976

The F/EF-1 tornado developed just west of Oconto Falls around 8:15 pm CST. The tornado was 50 yards wide and travelled less than a quarter of a mile. The damage from the tornado included: a barn was destroyed, a farm house was damaged, trees and power lines were down and a good portion of an orchard was destroyed.

Event 7: June 16, 1979

The F/EF-2 tornado developed near Oconto Falls around 9:30 am CST. The tornado travelled just over 15 miles and reached a maximum width of 100 yards before dissipating 2 miles northeast of Lena. At least 17 frame and mobile homes along with numerous barns were damaged or destroyed. Heavy rains and large hail accompanied the tornado destroying crops along the thunderstorm path.

Event 8: May 30, 1980

The F/EF-1 tornado touched down at Highway 22 and Highway J near Oconto around 3:20 pm CST. The tornado was 50 yards wide and travelled one mile. Several buildings and cars were damaged as well as twisting off several trees.

Event 9: April 25, 1996

A cold-core F/EF-0 tornado briefly touched down 2 miles west of Pensaukee around 5:55 pm CST. The tornado was 40 yards wide and travelled a tenth of a mile before dissipating at 5:57 pm CST. Several 6 to 8 inches diameter birch trees were knocked down.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OCONTO COUNTY

Event 10: June 7, 2007

By National Weather Service Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

Event 11: July 9, 2013

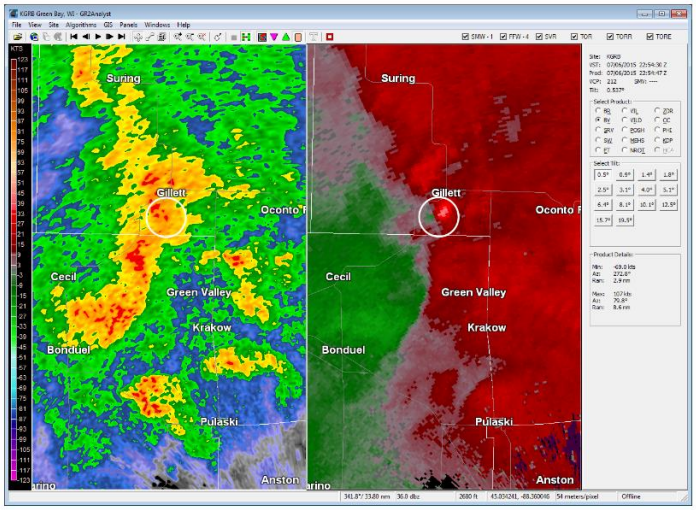
A tornado (F/EF-0) touched down about four and a half miles north northeast of Oconto in Oconto County at 6:40 pm CST. The tornado was observed by an eyewitness just east of Highway 41 near Swede Town Road and County Road A. The tornado moved east for about a mile and half toward the bay before dissipating at 6:54 pm CST. Dozens of trees were snapped and uprooted, and also blew over a recreational vehicle trailer along its path. The maximum width of the tornado was one hundred yards with an average width of seventy-five yards.

Event 12: July 6, 2015

An F/EF-0 tornado touched down at 4:56 pm CST 2.2 miles east-northeast of Gillett. The tornado travelled two and a quarter miles and was 50 yards wild before dissipating 2.6 miles south-southwest of Kelly Brook at 5:03 pm CST. The tornado uprooted or snapped at least twenty trees and caused minor damage to a house.

Event 12: July 6, 2015 continued

This new cell north of Embarrass continued to organize and strengthen and eventually produced an **EF1** Tornado near Gillett in western Oconto County around 555 pm CDT (***see image below***).



Radar reflectivity (above left) and velocity (above right) denoting the location of the storm that produced an EF1 tornado near Gillett around 555 pm CDT.

Here are some damge photos from the Gillett tornado:

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
ONEIDA COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	4	880	13.1
2	6	20	1953	1800	Three Lakes	1	100	2.0
3	5	4	1964	1800-1810	3 SW St. Germain to St. Germain	1	125	7.2
4	6	26	1969	1700	Skanawan - Pelican Lake	1	-9999	22.0
5	6	14	1980	1325	1 E Rhinelander - Lake Thompson	1	50	1.5
6	6	14	1980	1422	5 N Rhinelander	0	-9999	-9999
7	6	13	1981	2040	1 N Hazelhurst	1	-9999	-9999
8	6	13	1981	2100	Three Lakes	2	-9999	-9999
9	4	27	1984	1437-1507	Fawn Lake - Star Lake	3	880	29.0
10	6	8	1985	1815-1852	Park Falls - 3 SE Monico	3	2640	47.0
11	7	4	1986	1935-1940	5 SE Hazelhurst	2	100	1.5
12	8	1	1988	1820	3 S Hazelhurst	0	25	0.1
13	6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	2	400	6.0
14	8	9	1993	2015	1 N Tripoli	0	50	0.3
15	8	14	2000	1910	Lake Tomahawk	0	25	0.1
16	5	1	2001	2055-2100	0.4 NNE - NE Minocqua	1	125	1.5
17	9	6	2001	1809-1814	0.3 SSW Pelican Lake to 1.3 NNE Pelican Lake	0	30	0.5
18	4	18	2002	1557	6 SW Woodboro	0	25	0.1
19	4	18	2002	1633	4 E Rhinelander	0	25	0.1
20	7	11	2004	1442-1445	8 SW Harshaw	0	60	0.2
21	7	11	2004	1543	1 W Goodnow	0	10	0.1

TORNADO REFERENCE GUIDE - TORNADOES BY COUNTY
ONEIDA COUNTY

Event 1: June 25, 1950

The F/EF-4 tornado touched down one mile west of Woodboro around 9 pm CST and travelled 13.1 miles to five miles northeast of Rhinelander. The tornado reached a maximum width of 880 yards. Two deaths were reported in Oneida County.

Event 2: June 20, 1953

A brief F/EF-1 tornado touched down in Three Lakes around 6 pm CST. The tornado was 100 yards wide and travelled two miles before dissipating. Trees and power lines were downed along with some damage to summer homes.

Event 3: May 4, 1964

The F/EF-1 tornado was first reported 10 miles southwest of St. Germain around 6 pm CST. The tornado travelled just over 7 miles before dissipating in St. Germain at 6:10 pm CST in Vilas County. The tornado had a maximum width of 125 yards. The local storm report indicated the tornado touched down twice and crossed over the Big St. Germain drawing water to a height of 200 feet. There was considerable damage to resorts and woods in the path of the tornado.

Event 4: June 26, 1969

The F/EF-2 tornado formed near Lac Du Flambeau on the Vilas / Oneida County line around 5 pm CST and skipped northeast for nearly 29 miles. The tornado dissipated along the Michigan border 9 miles northwest of Land O' Lakes. Maximum width of the tornado was 35 yards. Resort areas from Fence Lake northeastward across Big Crooked and High Lakes suffered damage.

Event 5: June 14, 1980

A small tornado (F/EF-1) formed at Highway C one mile east of Rhinelander at 1:25 pm CST. The tornado was 50 yards wide and travelled eastward for a mile and a half before the tornado dissipated over Lake Thompson. A falling tree injured one person seriously and two other injuries were noted in a trailer court. One house and three trailers and several rural buildings suffered damage.

Event 6: June 14, 1980

The F/EF-0 tornado was reported 5 miles north of Rhinelander by the Oneida County sheriff's department at 2:22 pm CST. The brief tornado touched down in a rural area. There was no documentation on path length or width of the tornado.

Event 7: June 13, 1981

The F/EF-1 tornado touched down at the Timber Ridge Country Club on Route 51 one mile north of Hazelhurst around 8:40 pm. There was no documentation on path length or width of the tornado. The tornado destroyed about one thousand trees.

Event 8: June 13, 1981

There is very little information available on this F/EF-2 tornado that struck Three Lakes around 9 pm. Path length and width were not available.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
ONEIDA COUNTY

Event 9: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

Event 10: June 8, 1985

A severe thunderstorm spawned a killer F/EF-3 tornado and dropped large hail as it rolled through Price and Oneida Counties, causing widespread property, crop and timber damage. The tornado skipped from Park Falls to about 15 miles southeast of Rhinelander. The tornado first touched down one mile west of Park Falls around 6:15 pm CST and moved through the southern portion of the city. In Park Falls, 125 buildings were damaged with 12 houses and businesses were heavily damaged or destroyed. 26 people received mostly minor injuries in Park Falls. The tornado continued southeast, cutting an eighteen mile and 1.5 mile wide swath through eastern Price County and into Minocqua in Oneida County where the tornado dissipated around 6:52 pm CST. Two people were killed and sixteen injured at Swamsauger Lake and Cedar Falls resort in the Willow Reservoir area in Oneida County. A man apparently drowned when the tornado lifted him and his house and deposited it into Swamsauger Lake. A woman was killed when a tree crashed through a vehicle in which she was seeking refuge. The tornado continued to the southwest portion of Rhinelander and then dissipated southeast of Monico. A total of 47 residences were heavily damaged or destroyed while another 43 more received some damage in Oneida County. 9,900 acres of timber and cranberry bogs were lost in Oneida County.

Event 11: July 4, 1986

The F/EF-2 tornado touched down on the south shore of Windpudding Lake or 5 miles southeast of Hazelhurst around 7:35 pm CST. The tornado heavily damaged seven cottages and leveled numerous trees. A shed was blown thirty feet through the air. A dog inside the shed survived. The tornado travelled a mile and a half and reached a maximum width of 100 yards before it dissipated around 7:40 pm CST.

Event 12: August 1, 1988

A brief tornado (F/EF-0) occurred 3 miles south of Hazelhurst around 6:20 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. The tornado damaged some trees.

Event 13: June 27, 1991

The F/EF-2 tornado touched down 12 miles west-southwest of Minocqua around 6:20 pm CST. The tornado cut a 6 mile swath from near Pine Lake to Franklin Lake to Marion Lake before dissipating around 6:30 pm CST. The tornado was 400 yards wide. Thirteen homes and one car were damaged along its path with damage estimated at $350,000 dollars. In addition, 1,600 acres of industrial forest valued at $240,000 were also damaged.

Event 14: August 9, 1993

The F/EF-0 tornado touched down one mile north of Tripoli around 8:15 pm CST. The tornado was 50 yards wide and travelled three tenths of a mile. Little damaged was noted with this tornado.

Event 15: August 14, 2000

A brief F/EF-0 tornado touched down at Lake Tomahawk at 7:10 pm CST. The tornado was 25 yards wide and was on the ground a tenth of a mile. The tornado damaged trees in the Lake Tomahawk area.

Event 16: May 1, 2001

The tornado (F/EF-1) developed four tenths of a mile north of Minocqua around 8:55 pm CST. The tornado moved about a quarter of a mile before lifting of the ground. The tornado touched down again 1.8 miles east northeast of Minocqua and stayed on the ground for about 1.2 miles before dissipating. The tornado was 125 yards wide and was on the ground for about a mile and a half. Many pine trees were snapped 15 to 30 feet above the ground. A five unit storage building was completely removed from its slab and a number of homes were damaged by fallen trees.

Event 17: September 6, 2001

The F/EF-0 tornado touched down three tenths of a mile south southwest of Pelican Lake around 6:09 pm CST. The tornado was 30 yards wide and was on the ground for a half mile before dissipating 1.3 miles north northeast of Pelican Lake around 6:14 pm CST. The tornado caused minor damage to the Pelican Lake Supper Club, blew the roof off a nearby house and destroyed a garage. The tornado also caused minor damage to the Pelican Lake Town Hall and uprooted several trees.

Event 18: April 18, 2002

A brief F/EF-0 tornado touched down 6 miles southwest of Woodboro at 3:57 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 19: April 18, 2002

A brief F/EF-0 tornado touched down 4 miles east of Rhinelander at 4:33 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado snapped several trees.

Event 20: July 11, 2004

A brief F/EF-0 tornado touched down 8 miles southwest of Harshaw at 2:42 pm CST. The tornado was 60 yards wide and was on the ground for two tenths of a mile before dissipating at 2:45 pm CST. The tornado topped numerous trees onto power lines and damaged a pontoon boat.

Event 21: July 11, 2004

A brief F/EF-0 tornado touched down one mile west of Goodnow at 3:43 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OUTAGAMIE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	6	1959	0320	Symco to 3 SE Clintonville	2	1000	7.2
2	5	6	1959	1330	3 NE Shiocton	2	200	3.0
3	8	28	1959	1404	3 N Appleton	2	35	1.0
4	5	8	1964	1830-1906	Winneconne-Wrightstown	2	100	35.0
5	8	5	1968	1400	3 NW Seymour	1	150	1.9
6	8	16	1968	1230	Kaukauna	2	100	2.0
7	6	26	1969	1115-1130	Black Creek - Pulaski	3	100	15.3
8	12	1	1970	1015	Medina - Rose Lawn	3	200	30.0
9	7	12	1973	0800	4 W Freedom	1	100	1.0
10	6	13	1976	2000	5 E Seymour	1	50	0.5
11	5	30	1980	1605-1614	Black Creek	1	50	4.0
12	5	6	1982	1430	2 S Stephensville - 1 S Black Creek	2	100	9.0
13	4	27	1984	1520-1540	1 NE Winneconne - Freedom	4	600	27.5
14	5	16	1992	1920-1930	Kaukauna - 3 N Holland	1	100	4.0
15	6	23	2004	2000-2008	Little Chute - Kaukauna	1	100	3.5
16	6	13	2005	1449-1450	4.1 NNE - 4 NNE Black Creek	0	75	0.2
17	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	1	200	27.6
18	4	10	2011	1943-1946	1.2 SW Kaukauna – 0.3 S Little Chute	2	175	1.5
19	8	6	2013	2322-2333	4 NNE Partridge - 0.8 WSW Hortonville	1	125	9.8
20	8	6	2013	2324-2333	1.2 W New London - 0.4 WSW Greenville	2	175	13.1
21	8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	1	175	19.2
22	8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	1	150	20.7
23	8	6	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larrabee	1	200	33.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY

OUTAGAMIE COUNTY

Event 1: May 6, 1959

The F/EF-2 tornado developed near Symco in Waupaca County and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 2: May 6, 1959

The F/EF-2 tornado touched down 3 miles northeast of Shiocton and travelled nearly 2 miles before dissipating around 1:30 pm CST. The tornado reached a maximum width of 200 yards. The tornado flattened a barn on the farm of Mrs. Matilda Gehring. Numerous trees were damaged in a nearby wooded lot while a shed on a nearby farm sustained damage.

Event 3: August 28, 1959

Several funnel clouds were reported near the Outagamie County Airport by a pilot, and several other funnel clouds were noted by the Kimberly, Little Chute and Kaukauna police. The F/EF-2 tornado touched down about 3 miles north of Appleton around 2:04 pm CST. The tornado travelled approximately a mile before dissipating and had a maximum width of 35 yards.

Event 4: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 5: August 5, 1968

The F/EF-1 tornado touched down 3 miles northwest of Seymour around 2 pm CST. The tornado was 150 yards wide and was on the ground for two miles before dissipating. Nine barns and farm buildings were destroyed.

Event 6: August 16, 1968

The F/EF-2 tornado touched down near Kaukauna and travelled 2 miles before dissipating around 12:30 pm CST. The maximum width of the tornado was 100 yards. The Mueleman farm near Kaukauna experienced severe damage. A barn was destroyed along with many trees. His home also suffered damage as the roof was torn off and windows were knocked out.

Event 7: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 8: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards wide, travelled 30 miles before dissipating around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

Event 9: July 12, 1973

The F/EF-1 tornado developed 4 miles west of Freedom around 8 am CST. The tornado was 100 yards wide and travelled one mile. Farm buildings were destroyed on the Ken Geiger farm 4 miles west of Freedom.

Event 10: June 13, 1976

The tornado (F/EF-1) developed near county highway H and Highway 54 about five miles east of Seymour around 8 pm CST. The tornado was 50 yards wide and travelled a half mile. Three barns were destroyed.

Event 11: May 30, 1980

The F/EF-1 tornado touched down about 2 miles outside of Black Creek around 4:05 pm CST. The tornado travelled east around 4 miles before dissipating around 4:14 pm CST two miles east of Black Creek. An intermittent four mile path 50 yards wide resulted in damage to several garages in Black Creek.

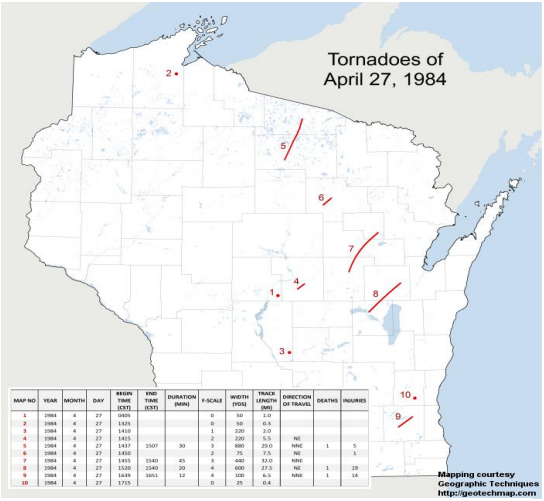
Event 12: May 6, 1982

The F/EF-2 tornado cut a 9 mile path from 2 miles south of Stephensville to one mile south of Black Creek around 2:30 pm CST. The tornado reached a maximum width of 100 yards. Many small rural structures were destroyed. Some damage occurred to 12 large farm buildings and equipment inside. Two additional large barns were destroyed. Most of the damage occurred in Ellington Township.

Event 13: April 27, 1984

The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. This outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OUTAGAMIE COUNTY



MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0805			0	50	1.0			
2	1984	4	27	1325			0	50	0.4			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	880	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	19
9	1984	4	27	1639	1651	12	4	100	6.5	NNE	1	14
10	1984	4	27	1715			0	25	0.4			

The Fox Valley Tornado

Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado travelled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph).

Other tornadoes on April 27, 1984 across Northeast Wisconsin

In addition to the Fox Valley tornado, five other tornadoes were reported across central and northeast Wisconsin that day. An F3 tornado, with winds estimated near 140 mph, tore through Oneida and Vilas counties, killing one person south of St. Germain and injuring eight others. Another F3 tornado was reported across Waupaca, Shawano, and Menominee counties causing considerable damage. Other tornados were observed over Wood, Portage, and Langlade counties.

Event 14: May 16: 1992

The F/EF-1 tornado formed near Lamers and Clancy Roads near Kaukauna around 7:20 pm CST. The tornado was 100 yards wide and travelled several miles into extreme southwest Brown County where it dissipated 2 miles southwest of Wrightstown around 7:30 pm CST. Numerous trees were down, some of which landed on houses.

Event 15: June 23, 2004

The F/EF-1 tornado touched down in at least four locations from Little Chute to Kaukauna between 8 pm and 8:08 pm CST. The tornado was 100 yards wide and travelled 3.5 miles before dissipating. The tornado toppled or twisted large trees, ripped parts of the roofs from residential and commercial buildings, destroyed storage sheds and an old barn. Semi trailers were overturned, some of them onto other vehicles.

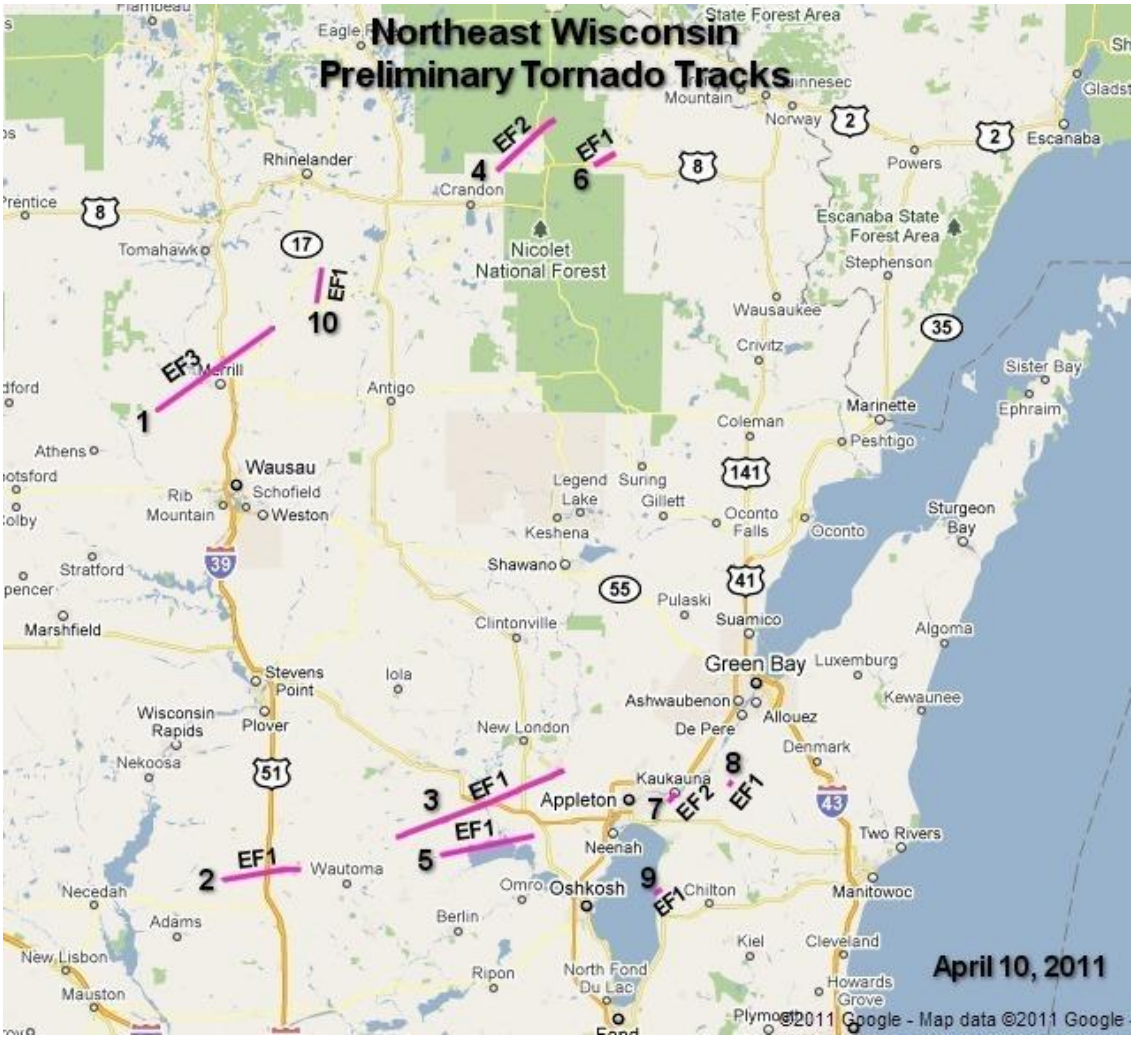
TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OUTAGAMIE COUNTY

Event 16: June 13, 2005

The F/EF-0 tornado touched down 4.1 miles north northeast of Black Creek at 2:49 pm CST. The tornado was 75 yards wide and was on the ground two tenths of a mile before it dissipated 4.1 miles north northeast of Black Creek at 2:50 pm CST. The tornado knocked down a tree and caused damage to shingles at a residence.

Event 17: April 10, 2011

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed and the debris, strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST.

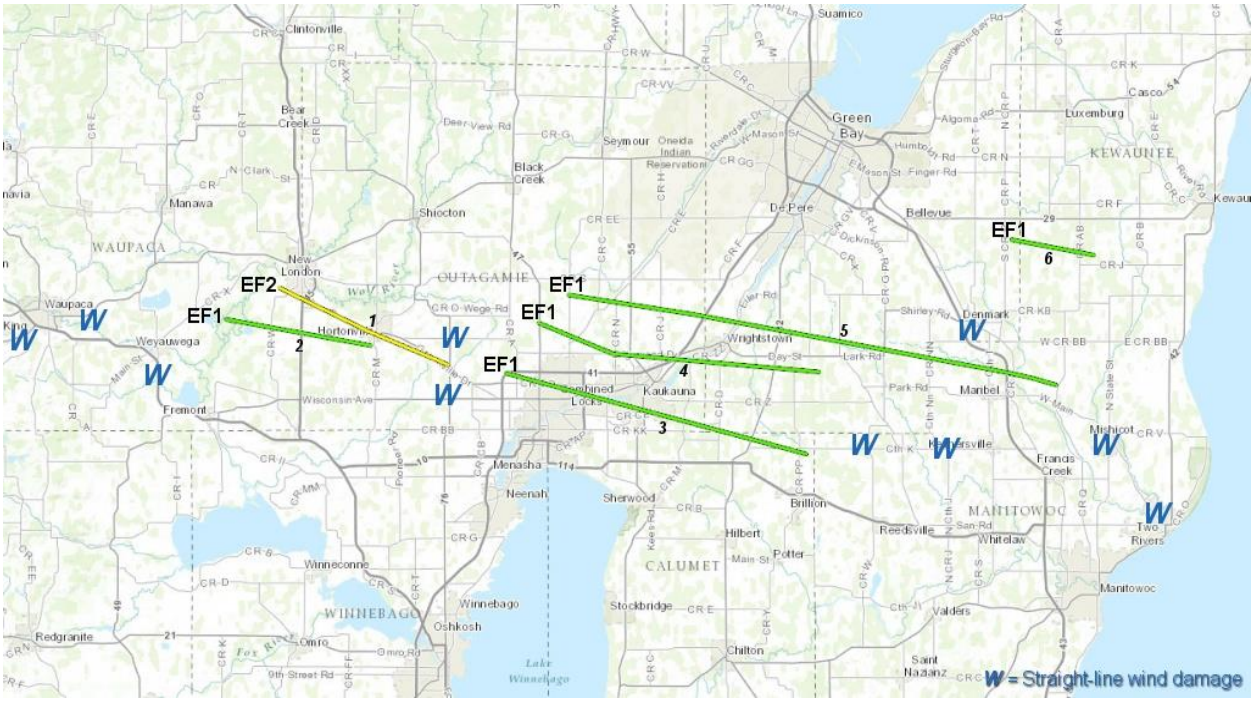


TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OUTAGAMIE COUNTY

Event 18: April 10, 2011

The F/EF-2 tornado touched down in the southwest side of Kaukauna near County Road CE at 7:43 pm CST. The tornado cut through the center of a subdivision as it moved north-northeast to near the Fox River before lifting off the ground. Seven homes were destroyed, 24 homes and four businesses sustained major damage and 160 other homes sustained minor damage. Several houses lost large sections of their roofs in the hardest hit area of the city. The average path width was 125 yards.

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 19: August 6, 2013

The first of six late night tornadoes to strike Northeast Wisconsin on this date, The (F/EF-0) tornado touched down four miles north northeast of Partridge Lake in Waupaca County at 11:22 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado hit a campground, blowing several camper trailers over. Two people sustained minor injuries at the campground. Over one hundred trees were snapped or uprooted along the path in Waupaca County. The tornado moved into Outagamie County about 3.1 miles south of New London at 11:26 am CST. The tornado damaged or uprooted trees as it moved across Outagamie County. Based on radar analysis, the circulation of this tornado may have merged with the other tornado that was occurring concurrently in the county near Hortonville. The tornado travelled 9.8 miles before dissipating eight tenths of a mile west southwest of Hortonville at 11:30 pm CST. The maximum width of the tornado in Outagamie and Waupaca Counties was 125 yards, with an average width of 75 yards in both counties.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
OUTAGAMIE COUNTY

Event 20: August 6, 2013

The second of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-2) tornado touched down 1.2 miles west of New London in Waupaca County at 11:24 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado struck a church (figure 1 below), causing severe damage. A large portion of the roof collapsed, causing failure to two walls. A wall on the new portion of the church was pushed in. In addition, hundreds of trees were snapped or uprooted. Several homes along the path sustained damage, mainly from fallen trees. The average path width in Waupaca County was 100 yards with a maximum width of 175 yards. The tornado now an EF-1 entered Outagamie County at 11:25 pm CST a little over a mile southeast of New London, damaging or uprooting hundreds of trees along the path. Several homes in a two block area of Hortonville were damaged (roof and siding) by falling trees. The average path width was 100 yards with a maximum width of 175 in Outagamie County. The tornado traveled 13.1 miles before dissipating four tenths of a mile west southwest of Greenville.

Figure 1: Church (southeast New London damaged by a tornado. Peak winds were estimated at 115 to 120 mph.

Event 21: August 6, 2013

The third of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down four tenths of a mile west of Mackville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado caused a barn to collapse, and heavily damaged a boat showroom in Little Chute. Another barn lost part of its roof northwest of Kaukauna. Damage to trees was sporadic as it moved through Outagamie County. The maximum width of the tornado in Outagamie County 175 yards, with an average width of one hundred yards. The tornado moved into southern Brown County, about two miles southwest of Wrightstown around 11:48 pm CST. In Brown County, the tornado uprooted or snapped dozens of trees as it moved east, just south of Greenleaf. A house lost an attached garage when winds blew in the garage door and caused a large portion of the garage roof to lift off. The walls of a nearby building collapsed. The maximum width of the tornado in Brown County was 175 yards and average with was 125 yards. The tornado travelled 19.2 miles before dissipating 2.7 miles west of Morrison at 23:53 pm CST.

Event 22: August 6, 2013

The fourth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down three and a half miles east of Greenville in Outagamie County at 11:38 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across northern portions of Appleton, Kimberly and Kaukauna. The tornado caused some roof damage to the Northland Mall and caused roof and window damage to two small retail buildings. The storm then knocked over four wood electrical poles and uprooted or heavily damaged hundreds of trees in a nearby neighborhood. Although houses in the area sustained relatively minor wind directly, fallen trees caused considerable collateral damage to roofs, siding and vehicles. The maximum width of the tornado in Outagamie County was 150 yards, with an average width of 125 yards. The tornado (EF-1) entered Brown County a little over a mile west of Holland around 11:49 pm CST. A few trees were knocked over by the tornado. The average path width in Brown County was 150 yards. The tornado (EF-1) moved into Calumet County 1.6 miles northwest of Forest Junction around 11:50 pm CST. In Calumet County, the tornado damaged about three dozen trees. Two metal truss towers collapsed under the weight of several high voltage power lines which were likely moving in unison as their resonance frequency was reached. Engineers inspected the damaged estimated winds around 100 mph. The maximum width in Calumet County was 175 yards with an average width of 125 yards. The tornado travelled 20.7 miles before dissipating a little over two and a half miles north northeast of Brillion around 11:52 pm CST.

Event 23: August 6, 2013

The fifth of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-1) tornado touched down 2.7 miles east northeast of Mackville in Outagamie County at 11:40 pm CST. The tornado was travelling at a rate of 60 to 70 mph as it moved across the Fox Valley. The tornado caused significant damage to several outbuildings and barns and flattened sections of mature corn fields. The roof of a power substation was damaged. The maximum path width was 200 yards, with an average width of 150 yards. The tornado now an EF-0 moved into Brown County just under two miles northwest of Wrightstown near Highway 41 around 11:48 pm CST. The tornado first hit the Apple Creek Campground, snapping fifty trees and knocking over two camping trailers. As the tornado moved across southern Brown County, at least seventy homes sustained at least minor damage, many from fallen trees. A large free standing garage was heavily damaged when the tornadic winds blew in two garage doors, causing the roof to be ripped off. The maximum width of the tornado in Brown County was 250 yards, with an average width of 175 yards. The tornado moved into Manitowoc County 4.1 miles northwest of Rosencrans around 12:01 am CST. The tornado strengthened to an EF-1 in Manitowoc County. The tornado damaged several outbuildings and a roof of a barn. A 110 year old stone structure at the Maribel Caves County Park was knocked over by the strong winds. The damage survey revealed the tornado ended a couple miles east of Maribel, but straight-line wind damaged continued into the east part of the county. The tornado in Manitowoc County has a maximum width of 250 yards and average width of 125 yards. The tornado travelled thirty-three miles across three counties before dissipating.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
PORTAGE COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	9	26	1951	1545-1608	9 SSW Amherst - Bear Creek	4	100	22.3
2	4	3	1956	1250	3 S Bancroft - 2 NW Amherst	2	100	18.2
3	4	19	1957	1600	Coddington - Bancroft	1	30	12.6
4	6	23	1962	1900	15 E Stevens Point	0	-9999	-9999
5	8	22	1964	1400	6 W Bancroft - Grant	2	300	7.0
6	7	7	1970	1500	Bancroft	2	100	2.0
7	12	1	1970	0700	Hull	1	200	2.7
8	6	9	1974	1445	Bancroft	1	30	2.5
9	6	12	1976	2030	1 W Alban	2	50	0.2
10	6	12	1976	2100	Amherst	1	50	0.3
11	6	13	1976	1900	Plover	2	50	0.3
12	6	13	1976	1840-1920	4 W Wisconsin Rapids - 3 NE Stevens Point	1	100	13.0
13	3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	1	35	28.0
14	4	27	1984	1415	0.5 S Plover	2	220	5.5
15	5	8	1988	1712	3 W Keene	0	25	1.0
16	5	16	1992	1430	5 N Junction City	1	400	1.3
17	5	16	1992	1810-1830	4 W Keene - 5 SE Amherst	2	400	11.0
18	10	8	1992	1712	4 NE Blaine	1	100	2.0
19	6	23	2004	1846-1848	3 NNW Almond - 3 NNE Almond	1	25	1.5
20	6	23	2004	1847	Whiting	0	10	0.1
21	6	23	2004	1853-1856	3 SE Blaine - 5 ESE Blaine	1	100	2.5
22	5	22	2011	1703-1720	5.5 SSE Cranmoor – 4.8 SE Arnott	1	700	31.6
23	7	9	2013	1644-1645	4.2 S Bancroft	0	25	0.2

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
PORTAGE COUNTY

Event 1: September 26, 1951

The F/EF-4 tornado touched down 9 miles south southwest of Amherst around 3:45 pm CST. The tornado then cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado travelled 22.3 miles and reached a maximum width of 400 yards before dissipating 2 miles southwest of Bear Creek in Waupaca County around 408 pm CST. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

Event 2: April 3, 1956

A strong spring storm killed 43 people nationwide, including eight in Wisconsin on this date. The F/EF-2 tornado developed 3 miles south of Bancroft around 12:50 pm CST. The tornado travelled 18.2 miles to two miles northwest of Amherst before dissipating. The tornado reached a maximum width of 100 yards. Two fatalities were reported in Portage County.

Event 3: April 19, 1957

The F/EF-1 tornado touched down in Coddington or 12 miles southwest of Bancroft around 4 pm CST. The tornado travelled about 12 miles and reached a maximum width of less than 50 yards before dissipating in Bancroft.

Event 4: June 23, 1962

The F/EF-0 tornado touched down 15 miles east of Stevens Point around 7 pm CST.

Event 5: August 22, 1964

The F/EF-2 tornado touched down six miles west of Bancroft and travelled approximately 7 miles to the town of Grant around 3 pm CST. The tornado had a maximum width of 300 yards.

Event 6: July 7, 1970

The F/EF-2 tornado touched down in Bancroft around 3 pm CST. The tornado moved east southeast for two miles and reached a maximum width of a hundred yards before dissipating. Damage was confined to a machine shed and tore the roof off a new school.

Event 7: December 1, 1970

A rare tornado event occurred across north central and northeast Wisconsin on this date. In all, there were four tornadoes on this date, including an F/EF-3. What made this event even more unusual was the time of day with all four tornadoes reported between 7 am and 10:45 am in the morning. The F/EF-1 tornado touched down on the Richard Rutta farm in the town of Hall north of Stevens Point. The tornado was 200 yards wide and travelled nearly 3 miles before dissipating.

Event 8: June 9, 1974

The tornado formed in Adams County and then the F/EF-1 tornado moved into southwest Portage County where it touched down briefly on the Sawyer Farm Route 1, Bancroft around 2:45 pm CST. The tornado was 30 yards wide and travelled two and a half miles. The tornado damaged a barn, a chicken coop and a porch on house. Only minor tree damage was noted.

Event 9: June 12, 1976

The F/EF-2 tornado touched down a mile west of Alban around 8:30 pm CST. The tornado only travelled about a quarter of a mile and reached a maximum width of fifty yards. The tornado leveled a mobile home a mile west of Alban.

PORTAGE COUNTY

Event 10: June 12, 1976

The F/EF-1 tornado touched down near Amherst around 9 pm CST. The tornado was 50 yards wide and travelled around a quarter of a mile. The Amherst High School roof was ripped off.

Event 11: June 13, 1976

The F/EF-1 tornado formed 4 miles west of Wisconsin Rapids in Wood County around 6:40 pm CST. The tornado continued to move east northeast to three miles northeast of Stevens Point near the intersection of Highway 51 and Business 51 before dissipating around 7:20 pm CST three miles northeast of Stevens Point. The tornado travelled nineteen miles and reached a maximum width of 100 yards. Many trees were flattened. In Stevens Point, scattered damage was reported just north of the city and a roof was blown off an apartment complex. Several other buildings also suffered damage. Two people in the apartment complex were injured from fallen debris.

Event 12: June 13, 1976

The F/EF-2 tornado was observed by the police chief of Plover around 7 pm CST. The tornado touched down at the intersection of Highway 54 and County B. The tornado was only on the ground for about a quarter of a mile and had a maximum width of about fifty yards.

Event 13: March 30, 1982

The tornado initially touched down in the township of Armenia in Juneau County where it destroyed a house and 3 nearby mobile homes. Two occupants of the house were injured. The F/EF-1 tornado then moved northeast to just southeast of Nekoosa in Wood County around 2:05 pm CST. The tornado travelled intermittently on a 28 mile path before dissipating 3 miles southwest of Stevens Point in Portage County around 2:40 pm CST.

Event 14: April 27, 1984

There were ten tornadoes on this date across the entire state. The F/EF-2 tornado touched down a half miles south of Plover around 2:15 pm CST. The tornado was 220 yards wide and travelled five and a half miles before dissipating. At least nine homes and numerous sheds and barns were destroyed. A bun feeder wagon was thrown 150 yards which snapped a sixty-five foot cement silo. Ping pong size hail accompanied the storm.

Event 15: May 8, 1988

The F/EF-0 tornado touched down in rural areas 3 miles west of Keene around 5:12 pm CST. The tornado was 25 yards wide and travelled a mile before dissipating.

Event 16: May 16, 1992

The F/EF-1 tornado touched down 5 miles north of Junction City around 2:30 pm CST. The tornado was 400 yards wide and travelled 1.3 miles before dissipating. The tornado damaged three homes, two sheds, and a mobile home roof 5 miles north of Junction City.

Event 17: May 16, 1992

The F/EF-2 tornado touched down 4 miles west of Keene around 6:10 pm CST. The tornado was 400 yards wide and travelled eleven miles to 5 miles southeast of Amherst before dissipating around 6:30 pm CST. The tornado tossed a mobile home in the middle of a road in Plover Township and damaged fourteen homes, two farms, and a large amount of irrigation equipment.

Event 18: October 8, 1992

The F/EF-1 tornado touched down about 4 miles northeast of Blaine and moved through the township of Lanark around 5:12 pm CST. The tornado was 100 yards wide and was on the ground for 2 miles. Ten homes and buildings were damaged, a barn and garage destroyed and numerous trees were knocked down.

Event 19: June 23, 2004

The F/EF-1 tornado touched down 3 miles west northwest of Almond around 6:46 pm CST. The tornado was 25 yards wide and was on the ground for a mile and a half before dissipating 3 miles north northeast of Almond around 6:48 pm CST. The tornado knocked down several trees and a fence, damaged the roof of a house and damaged some outbuildings.

Event 20: June 23, 2004

The F/EF-0 tornado touched down in Whiting at 6:47 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado caused minor tree damage in an industrial park in Whiting. Eyewitnesses observed water being sucked out of a pond at the same time as doors to an office was sucked open.

Event 21: June 23, 2004

The F/EF-1 tornado touched down 3 miles southeast of Blaine around 6:53 pm CST. The tornado was 100 yards wide and travelled two and a half miles to 5 miles east southeast of Blaine at 6:56 pm CST. The tornado downed trees and overturned an irrigation system.

Event 22: May 22, 2011

The F/EF-1 tornado moved out of Juneau County at 5:03 pm CST and moved across southern Wood County. The storm hit a campground on the east shore of the Wisconsin River about three miles south of Nekoosa. Over 100 pine trees were snapped and uprooted on the campground, some two feet in diameter. Several camper vehicles were damaged by fallen trees. The tornado was seen by campground visitors just before 5:15 pm CST. The tornado continued east-northeast and snapped or uprooted hundreds of additional trees south of Wisconsin Rapids. The storm damaged at least six homes and several other buildings about six miles south-southeast of Wisconsin Rapids. One of the houses lost the entire roof of a garage. A woman was in the garage at the time. She sustained injuries when the garage fell on the truck that she was taking shelter in. This area experienced a high-end F/EF-1 damage with winds at least 95 to 105 mph. The tornado entered Portage County around 5:20 pm CST. The tornado moved across mainly farmland. The twister continued to snap trees and overturn agricultural irrigation systems. About six miles south of Plover, a nearly half-mile long row of power poles were bent over. The tornado crossed Interstate 39 at Coddington Road two miles west of Keene. The tornado grew to nearly 700 yards wide as it passed just north of Keene and heavily damaged a farmstead. A silo was damaged and a barn was flattened. Several outbuildings were also damaged or destroyed. Along the path, at least two dozen irrigation systems were overturned and damaged resulting in over one million dollars in losses. Many hundreds of trees were snapped or uprooted. This area experienced high end F/EF-1 damage with winds of 100 to 110 mph. The tornado dissipated about 9 miles southeast of Plover at 5:46 pm CST. The average width was 300 yards in Portage County.

Event 23: July 9, 2013

A tornado (F/EF-0) touched down 4.2 miles south of Bancroft in Portage County around 4:44 pm CST in an open field just west of Interstate 39. The tornado was observed by a storm spotter and did no damage. The maximum width was 25 yards and traveled less than two tenths of a mile before dissipating at 4:45 pm CST.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
SHAWANO COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	6	9	1964	1455	Belle Plaine	1	-9999	-9999
2	8	16	1968	2120	5 SE Hofa Park	2	100	1
3	6	26	1969	1115-1130	Black Creek - Pulaski	3	100	15.3
4	12	1	1970	945-1030	4 NW Iola - Pella	2	200	32.0
5	12	1	1970	1010-1020	Medina to Rose Lawn	2	35	30.0
6	4	12	1974	1415	Wittenberg - Bowler	2	150	10.7
7	5	30	1980	1430	4 S Shawano	1	50	2.0
8	9	20	1980	2315	Mattoon	1	35	0.5
9	7	3	1983	1900	Birnamwood	1	50	0.5
10	4	27	1984	1455-1540	Union - Legend Lake	3	440	32.0
11	6	26	1984	1900	Caroline	1	50	4.0
12	9	14	1991	1800	2 W Green Valley	0	25	0.1
13	7	8	1994	1416	3 SE Aniwa	1	75	0.2
14	6	3	2007	1811	1.6 ESE Shawano	0	10	0.1
15	6	7	2007	1531-1618	2 ENE Mattoon - 9.5 ENE Lakewood	1	300	40.0
16	8	23	2011	1756-1757	0.9 – 1.1 SE Briarton	0	50	0.2
17	5	17	2015	1431-1440	1.6 WSW Morgan - 3.4 NE Morgan	0	75	4.8
18	7	6	2015	1603-1604	1.1 E Pella Airport	0	25	0.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
SHAWANO COUNTY

Event 1: June 9, 1964

The F/EF-1 tornado was sighted in Belle Plaine around 2:55 pm CST. The Adams Beach area was hit the hardest according to newspaper reports.

Event 2: August 16, 1968

The F/EF-2 tornado first formed about 5 miles southeast of Hofa Park in extreme eastern Shawano County on the Brown - Shawano County line. The tornado moved east about a mile and dissipated four miles south of Pulaski around 9:20 pm CST. The tornado reached a maximum width of 100 yards. A 40 year old dance hall on Highway 29 at the Shawano - Brown County line was destroyed. The building exploded and debris was scattered over nearby fields. The 73 year old owner was hospitalized.

Event 3: June 26, 1969

A rare morning tornado was reported across northeast Wisconsin. Around 11:15 am CST, the F/EF-3 tornado was noted moving northeast between Black Creek and near Pulaski in Outagamie County. The tornado travelled across far southeast Shawano County before dissipating 8 miles west of Sobieski in Oconto County around 11:30 am CST. The tornado caused extensive damage to trees and buildings in Black Creek, Seymour, Hofa Park, Elm Lawn and near Pulaski. A seven year old girl was hospitalized from injuries when a barn fell on her. The tornado travelled 18 miles and reached a maximum width of 100 yards.

Event 4: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola in Waupaca County. The tornado moved east for 32 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 5: December 1, 1970

The F/EF-3 tornado developed around 10:15 am CST near Medina in Outagamie County. The tornado moved northeastward at approximately 50 mph; destroying about twenty barns and five homes. The tornado caused additional property damage along a track from Medina to Black Creek and beyond to near County Trunk C in southeastern Shawano County. The tornado was 200 yards wide, travelled 30 miles before dissipating around 10:45 am CST near Rose Lawn in Shawano County. Damage to farm buildings was estimated at $500,000 dollars. Damage to a transmission line a mile and a half east of Stephensville was estimated at $100,000.

Event 6: April 12, 1974

The F/EF-2 tornado touched down in Wittenberg around 2:15 pm CST. The tornado travelled nearly 11 miles and reached a maximum width of 150 yards before dissipating near Bowler. Several farms between Wittenberg and Bowler were destroyed. The Wendler farm in the town of Morris and the Watters and Hintz farms in the town of Seneca sustained severe damage. One injury was reported when Mr. Hintz was injured when he was struck by a flying board.

Event 7: May 30, 1980

The F/EF-1 tornado touched down at Highway187 four miles south of Shawano around 2:30 pm CST. The tornado was 50 yards wide and travelled 2 miles before dissipating. A house trailer was destroyed and scattered debris two miles to the northeast.

Event 8: September 20, 1980

The Mattoon area was struck by the F/EF-1 tornado around 11:15 pm CST. The tornado was 35 yards wide and travelled a half mile before dissipating. Several buildings were damaged by the tornado.

Event 9: July 3, 1983

The F/EF-1 tornado touched down in Birnamwood around 7 pm CST. The tornado was 50 yards wide and travelled a half mile.

Event 10: April 27, 1984

Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

Event 11: June 26, 1984

The F/EF-1 tornado touched down on the west side of Caroline around 7 pm CST. The tornado was 50 yards wide and travelled 4 miles before dissipating east of Caroline. On the west side of Caroline, the tornado flattened sheds and knocking over several large trees and gravestones in a cemetery. A church roof was ripped off on the east side of Caroline. The entire town was without power for three hours.

Event 12: September 14, 1991

The F/EF-0 tornado touched down briefly 2 miles west of Green Valley around 6:00 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Damage was confined to some trees and a pair of sheds.

Event 13: July 8, 1994

The F/EF-1 tornado formed three miles southeast of Aniwa around 2:16 pm CST. The tornado was 75 yards wide. The tornado only travelled two tenths of a mile. The tornado destroyed a garage and toppled trees three miles southeast of Aniwa.

Event 14: June 3, 2007

A brief landspout (F/EF-0) was reported about 2 miles east southeast of Shawano at 6:11 pm CST. The landspout lasted 20 seconds and was observed and photographed. No damage was reported.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
SHAWANO COUNTY

Event 15: June 7, 2007

By NWS Green Bay Staff

Fast moving supercell thunderstorms with damaging winds, hail larger than 5 inches in diameter, and tornadoes ripped across central and northeast Wisconsin on June 7, 2007. Five tornadoes touched down in central and northeast Wisconsin.

Map of northeast Wisconsin and tornado tracks. Not denoted on the map is an area of straight-line wind damage in the Thunder Mountain area of western Marinette County, caused by the same supercell that produced the long-track tornado.

Menominee-Langlade-Oconto Counties Long-Track Tornado

A long-track tornado touched down at 3:31 pm CST east of Mattoon in Shawano County and continued northeast to the Oconto-Marinette County line. The tornado was on the ground for at least 40 miles, and was over 1/2 mile wide at times. Over 14,000 acres of trees were snapped or flattened and many dozens of buildings were damaged or destroyed. The twister was rated an EF3 on the Enhanced Fujita scale, with estimated winds of 140 to 160 mph

Event 16: August 23, 2011

The F/EF-0 tornado touched down near Briarton shortly before 6 pm CST along Shady Road in Shawano County just north of the Outagamie County line. Tall grass and a hay field were flattened in a cyclonic pattern. In addition, about a dozen trees had snapped limbed. Peak winds were estimated at 65 to 70 mph. The average path width was 50 yards.

Event 17: May 17, 2015

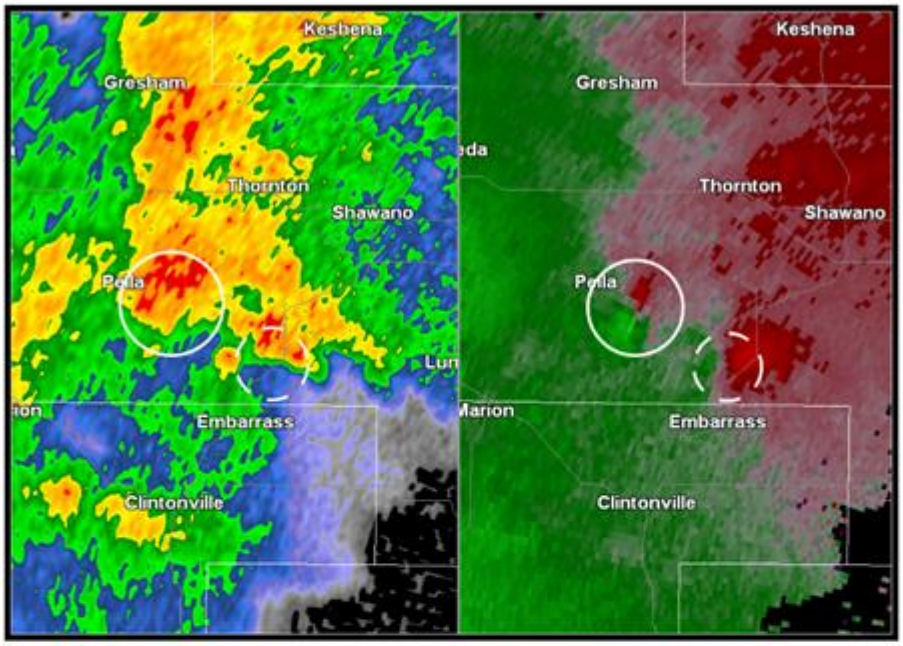
The F/EF-0 tornado touched down at 2:31 pm CST just over a mile and a half west-southwest of Morgan in Shawano County. The tornado produced intermittent damage along a nearly five mile long path, dissipating at 2:40 pm CST just over three miles northeast of Morgan. At least a dozen trees along the path sustained damaged and a barn lost several shingles. The tornado had a maximum width of 75 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
SHAWANO COUNTY

Event 18: July 6, 2015

An F/EF-0 tornado touched down at 4:03 pm CST just over a mile east of the Pella Airport. The tornado travelled nearly a tenth of a mile and was 25 yards wide before dissipating at 4:04 pm CST. The tornado tore off part of a barn and sent wooden pallets into a nearby field. Radar image and storm damage depicted below.

As this cell continued to move northeast into Shawano County, it produced another very weak tornado (**EF0**) that briefly touched down near Pella in central Shawano County around 5 pm CDT (***denoted by the white circle in the image below***). The dashed circle in the image below denotes a new circulation associated with a different cell that was developing to the southeast of the Pella (just north of Embarrass).



Radar reflectivity (above left) and velocity image (above right) associated with brief tornado touchdown near Pella (denoted by solid circle in the image above). Dashed circle denotes a new circulation that eventually produces a tornado near Gillett about 50 minutes later.

Here are some damge photos from the Pella tornado:

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
VILAS COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	4	1964	1800-1810	Saint Germain	1	125	2.0
2	6	26	1969	1630	2 W Manitowish Waters - 3 SW Presque Is.	1	35	9.0
3	6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	2	35	28.9
4	7	7	1970	1900	Winchester - Boulder Junction - Conover	1	-9999	37.9
5	7	12	1973	0300	Boulder Junction - Sayner	1	100	19.5
6	6	13	1981	2045	Sayner - 3 NE Sayner	1	50	3.0
7	7	3	1983	0439	Eagle River	1	20	0.5
8	4	27	1984	1437-1507	Fawn Lake - Star Lake	3	880	29.0
9	7	24	1986	1415	Saint Germain	1	50	0.3
10	7	29	1988	2030	Eagle River	1	50	0.1
11	8	1	1988	1852	1 W Saint Germain	1	50	1.0
12	8	1	1988	1922	2 SE Eagle River	0	25	0.3
13	4	26	1994	1455-1505	1.5 N Conover - 3 SE Land O'Lakes	1	150	4.5
14	7	14	1995	1640-1647	Phelps	1	250	3.5

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
VILAS COUNTY

Event 1: May 4, 1964

The F/EF-1 tornado was first reported 10 miles southwest of St. Germain around 6 pm CST. The tornado travelled just over 7 miles before dissipating in St. Germain at 6:10 pm CST. The tornado had a maximum width of 125 yards. The local storm report indicated the tornado touched down twice and crossed over the Big St. Germain drawing water to a height of 200 feet. There was considerable damage to resorts and woods in the path of the tornado.

Event 2: June 26, 1969

According to the local storm report, the F/EF-1 tornado skipped northeast through the forests of Price, southeast Iron and western Vilas Counties. The tornado struck Vilas County from 2 miles west of Manitowish Waters around 4:30 pm CST and moved to three miles southwest of Presque Isle. Most of the damage occurred around Manitowish Waters.

Event 3: June 26, 1969

The F/EF-2 tornado formed near Lac Du Flambeau around 5 pm CST and skipped northeast for nearly 29 miles. The tornado dissipated along the Michigan border 9 miles northwest of Land O' Lakes. Maximum width of the tornado was 35 yards. Resort areas from Fence Lake northeastward across Big Crooked and High Lakes suffered damage.

Event 4: July 7, 1970

The F/EF-1 tornado developed across Iron County in northwest Wisconsin. The tornado travelled east southeastward for nearly 38 miles across Vilas County around 7 pm CST. The tornado travelled from Winchester to Boulder Junction to Conover. Extensive damage to woods and lake property were noted in the path of the tornado.

Event 5: July 12, 1973

The F/EF-1 tornado was struck touchdown just south of Boulder Junction around 3 am CST. The tornado was 100 yards wide and travelled 19.5 miles before dissipating near Sayner in Vilas County. Scattered damage to the woods was reported along the path of the tornado.

Event 6: June 13, 1981

The F/EF-1 tornado touched down at County Highway N about a half mile north Sayner. The tornado moved east for three miles through the dense forest and cross the intersection of Highway N and Highway G then dissipated. The tornado damaged electric lines, telephone poles and trees. The tornado was fifty yards wide.

Event 7: July 3, 1983

The Eagle River Municipal Airport was hit by the F/EF-1 tornado at 4:39 am CST. The tornado was 20 yards wide and travelled a half mile before dissipating. Two single engine planes were destroyed and thirteen others were damaged. Five eighths inch ropes holding the planes down were shredded. One plane cart wheeled four hundred feet.

Event 8: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

Event 8: April 27, 1984

The F/EF-3 tornado developed near Fawn Lake in Oneida County around 2:37 pm CST. The tornado travelled to near Star Lake in Vilas County before dissipating around 3:07 pm CST. The tornado leveled several thousand acres of forest, destroyed or damaged 80 homes and cabins, ripped up docks and tossed boats in the air or wrapped them around trees. A Fawn Lake man was killed after getting his family to safety. The hardest hit areas were Fawn Lake, Two Lakes, Hasbrook and Gilmore Lakes in Oneida County. In Vilas County, the hardest hit areas were St. Germain Lake, Lost Lake and Star Lake. The tornado travelled 29 miles and reached a maximum width of 880 yards.

Event 9: July 24, 1986

The F/EF-1 tornado briefly touched down around 2:15 pm CST on South Shore Drive near Little St. Germain Lake near St. Germain. The tornado was 50 yards wide and travelled a quarter of a mile. Five buildings, some garages, some boats and docks were damaged. A dozen trees were snapped off at the base.

Event 10: July 29, 1988

The brief tornado touched down in Eagle River around 8:30 pm CST. The tornado was 50 yards wide and only travelled a tenth of a mile. The F/EF-1 tornado damaged the Northland Pines High School in Eagle River. Winds accompanying the storm downed signs and trees in the Eagle River area.

Event 11: August 1, 1988

The F/EF-1 tornado touched down one mile west of St. Germain around 6:52 pm CST. The tornado was 50 yards wide and travelled one mile. The tornado caused falling trees to damage cars and buildings one mile west of St. Germain. Another tornado (F/EF-0) was reported at 7:22 pm CST two miles southeast of Eagle River.

Event 12: August 1, 1988

A brief tornado (F/EF-0) occurred 2 miles southeast of Eagle River around 7:22 pm CST. The tornado was 25 yards wide and travelled three tenths of a mile. The tornado damaged some trees.

Event 13: April 26, 1994

The F/EF-1 tornado touched down a mile and a half north of Conover around 2:55 pm CST. The tornado was 150 yards wide and travelled four and a half miles before dissipating 3 miles southeast of Land O' Lakes around 3:05 pm CST. The tornado damaged a house just north of Conover and leveled hundreds of trees along its four and a half mile path into the Nicolet National Forest.

Event 14: July 14, 1995

The tornado touched down a mile and a half southwest of Phelps around 4:40 pm CST. The F/EF-1 tornado was 250 yards wide and travelled east for three and a half miles before dissipating just southeast of Phelps at 4:47 pm CST. Trees fell on cars, homes and businesses.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUPACA COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	9	18	1950	1430	2 N Waupaca - Weyauwega	3	-9999	-9999
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	4	100	22.3
3	5	28	1955	1505	3 W Clintonville	1	75	2.7
4	4	6	1956	1345	Ogdensburg - Symco	2	100	7.0
5	5	6	1959	0320	Symco - Clintonville	2	1000	7.2
6	5	8	1964	1700	Iola - 1 W Clintonville	2	200	3.0
7	7	2	1969	1600	Symco	0	100	4.3
8	7	14	1970	1230	Marion	1	35	0.5
9	12	1	1970	1030	4 NW Iola - Pella	2	200	32.0
10	6	14	1980	1230	5 NW Manawa - Manawa	1	50	5.0
11	4	27	1984	1455-1540	Union - Legend Lake	3	440	32.0
12	5	16	1992	1830	2.5 NE Northland	1	100	1.5
13	7	4	1994	1649	4 W Fremont	0	25	0.1
14	6	23	2004	1856-1906	9 W Waupaca to 2 SW Lind Center	2	125	11.0
15	6	10	2005	1510	2 W Clintonville	0	20	0.1
16	8	18	2005	1838-1841	4 SSW to 3.4 SW New London	0	40	1.2
17	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	1	200	27.6
18	8	6	2013	2322-2333	4 NNE Partridge - 0.8 WSW Hortonville	1	125	9.8
19	8	6	2013	2324-2333	1.2 W New London - 0.4 WSW Greenville	2	175	13.1
20	7	6	2015	1538-1540	3.4 W Marion - 2.7 W Marion	1	75	0.8

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUPACA COUNTY

Event 1: September 18, 1950

The F/EF-3 tornado touched down 2 miles north of Waupaca around 2:30 pm CST. The tornado travelled to Weyauwega before dissipating. Storm data was not available at this time and I could not find any additional newspaper articles on this tornado event.

Event 2: September 26, 1951

The F/EF-4 tornado touched down 9 miles south southwest of Amherst in Portage County around 3:45 pm CST. The tornado then cut through the towns of Waupaca and Lebanon in Waupaca County. The tornado travelled 22.3 miles and reached a maximum width of 400 yards before dissipating 2 miles southwest of Bear Creek in Waupaca County around 408 pm CST. A family of five was killed near Waupaca; while a 40 year old woman was killed near New London when a farm home was flattened.

Event 3: May 28, 1955

The F/EF-1 tornado touched down 3 miles west of Clintonville around 3:05 pm CST. The tornado travelled 2.7 miles and reached a maximum width of 75 yards before dissipating. The tornado ripped through a farm injuring two persons, and knocking down trees and utility poles. Robert Malaueg, 13, and Leroy Ashauer, 23, were hurt and taken to Clintonville Community Hospital.

Event 4: April 6, 1956

The F/EF-2 tornado developed near Ogdensburg around 1:45 pm CST. The tornado travelled 7 miles to Symco before dissipating around 1:53 pm CST. The tornado reached a maximum width of 100 yards.

Event 5: May 6, 1959

The F/EF-2 tornado developed near Symco and travelled a little over 7 miles to three miles southeast of Clintonville in Outagamie County around 3:20 am CST. A second tornado hit Outagamie County later that afternoon.

Event 6: May 8, 1964

Several tornadoes were noted across the state on this date. In north central and northeast Wisconsin, the F/EF-2 tornado touched down from about five miles north of Iola around 5 pm CST. The tornado travelled a little over 3 miles to one mile west of Clintonville. The tornado had a maximum width of 200 yards. At least five barns were reported down in the Clintonville area. Another tornado was noted across Marathon County from seven miles east southeast of Knowlton to five miles west of Elderon around 5:50 pm CST.

Event 7: July 2, 1969

The F/EF-0 tornado touched down in Symco around 4 pm CST. The tornado was 100 yards wide and travelled 4.3 miles before dissipating. The tornado produced extensive damage to buildings on the Howard Winter farm between Manawa and Big Falls. Utility wires were also damaged along Highway 22 near Symco.

Event 8: July 14, 1970

The F/EF-1 tornado briefly touched down around 12:30 pm CST. The tornado was less than 50 yards wide and travelled approximately a half mile. The tornado ripped a door off a factory, flipping over a car and damaging trucks and signs in Marion.

Event 9: December 1, 1970

Four rare and only December tornadoes were reported on this date across north central and northeast Wisconsin. The F/EF-2 tornado touched down with severe damage around 9:45 am CST on the Heschke farm 4 miles northwest of Iola. The tornado moved east for 28 miles across Waupaca County into Shawano County before dissipating in Pella around 10:30 am CST. The maximum width of the tornado was 200 yards. Additional damage occurred in the Marion and Pella areas. A lady and her three small children escaped injury when their mobile home was lifted up by the tornado and exploded with debris scattered over the field.

Event 10: June 14, 1980

The tornado (F/EF-1) developed about 5 miles northwest of Manawa at Highway 161 near County Highway E around 12:30 pm CST. The tornado crossed Highway 161 and then turned eastward and dissipated near Manawa. The tornado was 50 yards wide and travelled five miles before dissipating. Several residents in the area took several spectacular photographs of the twister.

Event 11: April 27, 1984

Another F/EF-3 tornado touched down on April 27th in Union township in Waupaca County around 2:55 pm CST. The tornado skipped north northeast to Legend Lake in Menominee County where the tornado dissipated around 3:40 pm CST. The tornado travelled 32 miles and reached a maximum width of 440 yards. Damage occurred to 41 homes and cabins, 5 barns, 19 garages and sheds as well as several hundred acres of forest. The hardest hit areas were around Marion in Waupaca County, the town of Pella in Shawano County, and the South Branch-Legend Lake areas of Menominee County. Overall, there were six tornadoes on this date across north central and northeast Wisconsin. The strongest tornado (F/EF-4) occurred across Winnebago and Outagamie Counties around the same time these two tornadoes occurred. Across the state of Wisconsin, there were ten tornadoes reported on this date.

Event 12: May 16: 1992

The F/EF-1 tornado touched down two and a half miles northeast of Northland around 6:30 pm CST. The tornado was 100 yards wide and was on the ground for a mile and a half. Many trees and three homes were damaged by the tornado.

Event 13: July 4, 1994

The F/EF-0 tornado touched down 4 miles west of Fremont around 4:49 pm CST. The tornado was 25 yards wide and was on the ground for a tenth of a mile. The tornado did not produce any significant damage.

Event 14: June 23, 2004

The F/EF-2 tornado originally touched down in southeast Portage County. The tornado then strengthened as it moved into southwest Waupaca County 9 miles west of Waupaca around 6:56 pm CST. The tornado was 125 yards wide and travelled 11 miles before dissipating 2 miles southwest of Lind Center at 7:06 pm CST. The tornado scoured asphalt off a road, destroyed a barn, sheared off the top 50 feet of a silo crushing 3 calves, damaged a sheet metal outbuilding, and killed 3 sheep. The tornado tore the roof from a house and destroyed the garage, overturned a semi-trailer and moved it 50 feet. Many trees were snapped off or uprooted. Some of the debris from this tornado landed several miles to the east in the Fremont area of Waupaca County.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUPACA COUNTY

Event 15: June 10, 2005

The F/EF-0 tornado touched down 2 miles west of Clintonville at 3:10 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 16: August 18, 2005

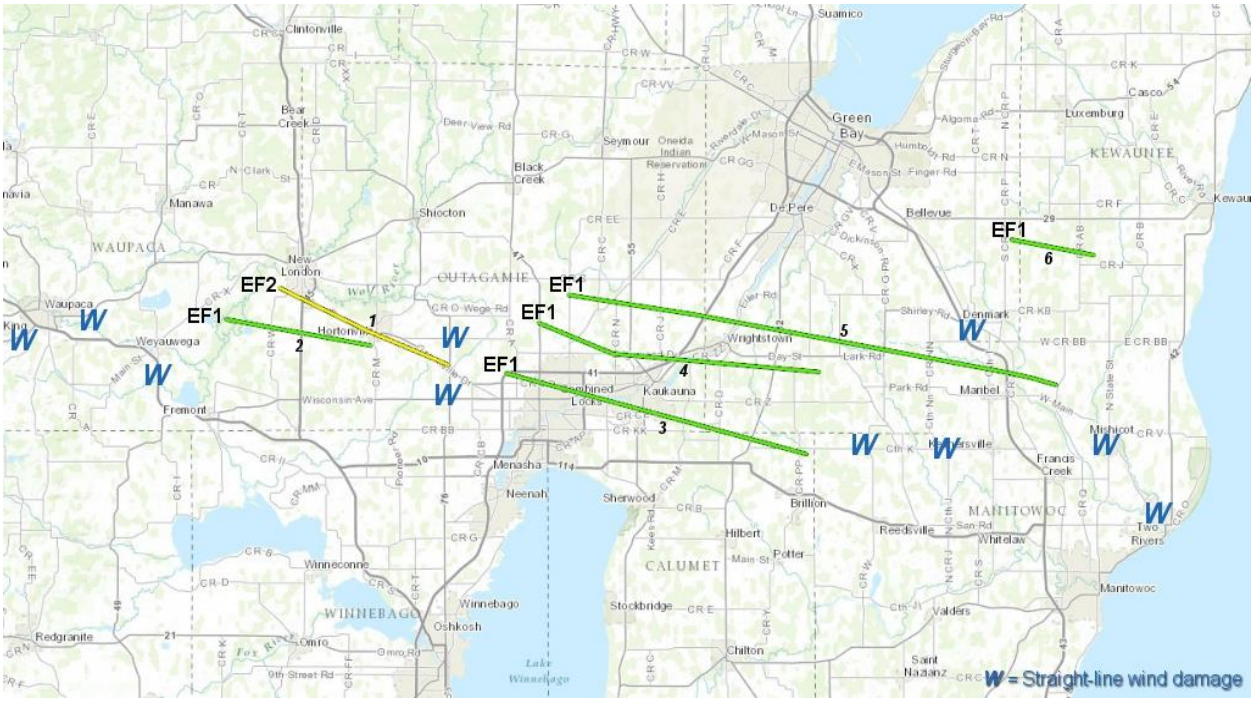
The F/EF-0 tornado touched down 4 miles south southwest of New London at 6:38 pm CST. The tornado was 40 yards wide and was on the ground for 1.2 miles before dissipating 3.4 miles southwest of New London at 6:41 pm CST. The tornado snapped large trees and a few buildings in its path. The tornado shifted a large barn, destroyed a small metal shed and threw it about a quarter of a mile. An outbuilding was overturned and thrown 30 to 40 feet into a stand of trees.

Event 17: April 10, 2011

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed and the debris strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST. The tornado, which was not on the ground the entire time, damaged a couple of farm buildings just south of Hortonville before it dissipated. One of the buildings lost part of its roof. The average width was 100 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUPACA COUNTY

Rare Late Evening / Early Morning Tornadoes on August 6-7, 2013



Event 18: August 6, 2013

The first of six late night tornadoes to strike Northeast Wisconsin on this date, The (F/EF-0) tornado touched down four miles north northeast of Partridge Lake in Waupaca County at 11:22 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado hit a campground, blowing several camper trailers over. Two people sustained minor injuries at the campground. Over one hundred trees were snapped or uprooted along the path in Waupaca County. The tornado moved into Outagamie County about 3.1 miles south of New London at 11:26 am CST. The tornado damaged or uprooted trees as it moved across Outagamie County. Based on radar analysis, the circulation of this tornado may have merged with the other tornado that was occurring concurrently in the county near Hortonville. The tornado travelled 9.8 miles before dissipating eight tenths of a mile west southwest of Hortonville at 11:30 pm CST. The maximum width of the tornado in Outagamie and Waupaca Counties was 125 yards, with an average width of 75 yards in both counties.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUPACA COUNTY

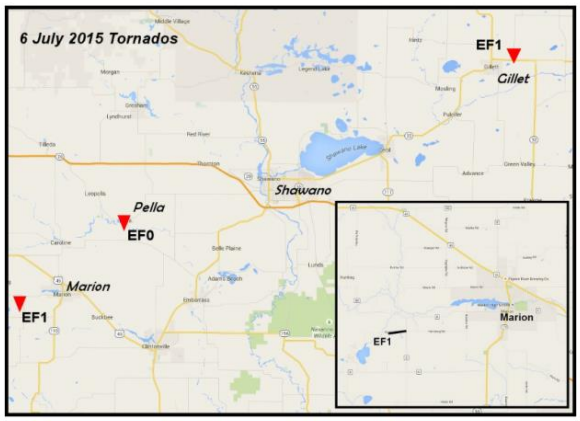
Event 19: August 6, 2013

The second of six late night tornadoes to strike Northeast Wisconsin on this date, the (F/EF-2) tornado touched down 1.2 miles west of New London in Waupaca County at 11:24 pm CST. The tornado was travelling at a rate of 60 to 70 mph. The tornado struck a church (figure 1 below), causing severe damage. A large portion of the roof collapsed, causing failure to two walls. A wall on the new portion of the church was pushed in. In addition, hundreds of trees were snapped or uprooted. Several homes along the path sustained damage, mainly from fallen trees. The average path width in Waupaca County was 100 yards with a maximum width of 175 yards. The tornado now an EF-1 entered Outagamie County at 11:25 pm CST a little over a mile southeast of New London, damaging or uprooting hundreds of trees along the path. Several homes in a two block area of Hortonville were damaged (roof and siding) by falling trees. The average path width was 100 yards with a maximum width of 175 in Outagamie County. The tornado traveled 13.1 miles before dissipating four tenths of a mile west southwest of Greenville.

Event 20: July 6, 2015

An F/EF-0 tornado touched down at 2:31 pm CST 3.4 miles west of Marion (see map next page) in Waupaca County. The tornado travelled three quarters of a mile and had a maximum width of 75 yards wide before dissipating 2.7 miles west of Marion at 2:40 pm CST. The tornado heavily damaged a bard and adjacent garage. The roof of a nearby house was damaged and winds of another home were broken. At least two dozen trees were uprooted or snapped. The average path width was 50 yards.

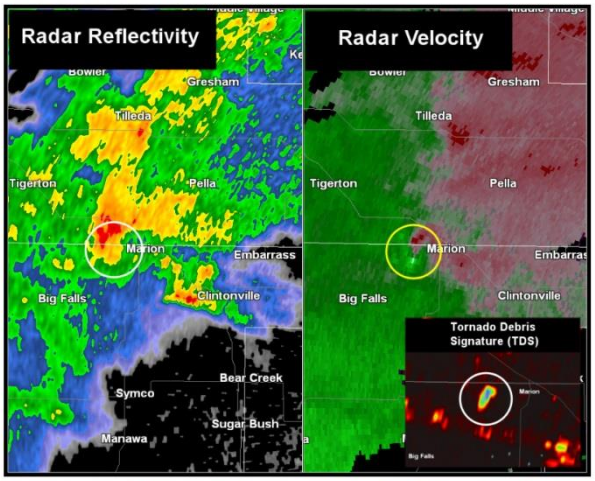
This was one of three tornadoes that touched down in northeast Wisconsin on this date. What was unusual about this event was there was no thunder noted with the tornadoes (very rare!). The radar image shows in the intense rotation west of Marion.



***Preliminary** Tornado Map (above). Red triangles denote **approximate** location of brief tornado touchdowns. Inset above denotes the location of the EF1 tornado west of Marion, Wisconsin.*

Tornado	Begin	End	Path
Marion EF1	4:38 PM, 3 W Marion	4:40 PM, 2.6 W Marion	Length: 0.4 mi Width: 75 yards
Pella EF0	5:03 PM, 2 E Pella	5:03 PM, 2 E Pella	Length: 0.1 mi Width: 25 yards
Gillett EF1	5:56 PM, 2 E Gillett	6:03 PM, 3 ENE Gillett	Length: 2.2 mi Width: 50 yards

The first tornado developed just ahead of the main line of showers over northern Waupaca County. This storm quickly attained supercell characteristics and generated a brief **EF1** tornado about three miles west of Marion in extreme northern Waupaca County (***see map insert above** and radar images below*).



Radar reflectivity (above Left) and radar velocity (above right) around time of the EF1 tornado west of Marion. Insert in the above image is the dual polarization correlation coefficient (CC) product denoting the location of debris produced by the tornado.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
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Event 20: July 6, 2015

Here are some damge photos from the Marion tornado:

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	4	15	1954	1500	2 NE Neshkoro - Redgranite	2	30	6.0
2	4	3	1956	1345-1353	Berlin - Rural Winnebago County	4	440	11.5
3	4	19	1957	1600-1615	3 W Wautoma - 2 NW West Bloomfield	2	50	22.8
4	7	10	1966	2200	Plainfield - Wautoma	1	100	15.5
5	5	18	1971	1640-1704	Adams-Friendship - Hancock	1	100	15.0
6	7	4	1985	1703-1717	1 N Redgranite - 1 SW Pine River	0	50	5.0
7	8	12	1985	1930-1945	1 N Richford	0	100	0.5
8	5	8	1988	1706-1712	2 SE Wautoma - 1 S Mount Morris	1	100	5.0
9	9	19	1988	1605	1 E Plainfield	0	25	0.1
10	8	29	1992	1910-1955	1 N Wautoma - 3 SE Poysippi	3	800	28.0
11	10	8	1992	1648	5 NE Wild Rose	1	400	1.0
12	6	8	1993	1838-1855	2.5 S Spring Lake - 2 W Auroraville	0	25	8.0
13	6	8	1993	1915-1935	0.5 E Dakota - 2 S Redgranite	0	35	12.0
14	6	8	1993	1935-1945	5 SE Redgranite - 3 SE Auroraville	0	25	6.0
15	8	27	1994	2107	Hancock	1	75	1.5
16	7	16	1997	1641-1642	Hancock	0	10	0.1
17	6	16	1998	1500	3 WNW Coloma	0	20	0.1
18	6	4	2005	1354	1 E - 1.1 ENE Auroraville	0	75	0.2
19	6	4	2005	1405	2 NW Borth	0	50	0.1
20	8	18	2005	1732-1736	6 WSW - 3.7 SW Wautoma	0	80	2.0
21	4	10	2011	1735-1742	2 NW Coloma – 4 ESE Hancock	1	140	7.9
22	4	10	2011	1806-1843	1 SW Saxeville – 1 SE Hortonville	1	200	27.6
23	4	10	2011	1853-1904	0.3 N Poy Sippi – 2.3 WSW Winchester	1	150	14.9

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

Event 1: April 15, 1954

The F/EF-2 tornado struck around 3 pm CST two miles northeast of Neshkoro. The tornado travelled approximately six miles and reached a maximum width of 30 yards before dissipating at Redgranite. Widespread damage was reported at Redgranite, Lohrville and Spring Lake. Numerous small buildings and trees were damaged. The greatest single property damage occurred at the St. Marks Catholic Church in Redgranite. The frame structure was badly shaken by the storm, resulting in jammed doors and dislodged staircases and shattered walls. In the Spring Lake-Lohrville area, the greatest damage was in the town of Marion where a large barn was leveled. The wind scattered the tin roof for hundreds of yards in several directions.

Event 2: April 3, 1956

Unseasonably warm air ahead of a strong cold front triggered showers and thunderstorms across the state. The F/EF-4 tornado developed near Berlin in Green Lake County around 1:45 pm CST and travelled 11.5 miles across rural areas of southeast Waushara County near the town of Aurora; then dissipated around 1:53 pm CST two miles west of Omro in Winnebago County. The tornado was 440 yards wide. Berlin was hit the hardest with six killed and 50 injured. Severe storms killed eight people across the state on this day.

Event 3: April 19, 1957

The F/EF-2 tornado developed 3 miles west of Wautoma around 4 pm CST. The tornado travelled nearly 23 miles and reached a maximum width of 50 yards before dissipating two miles northwest of West Bloomfield around 4:15 pm CST. No fatalities were reported at a farm house that was leveled in rural Wild Rose. The farm of Reuben Anderson, Route 2 Wild Rose was the principal destruction point in Waushara County. The tornado destroyed a 34 by 56 foot barn, a 10 by 30 foot wood silo, a chicken coop, a milk house and wood shed.

Event 4: July 10, 1966

The F/EF-1 tornado was first reported to touch down in Plainfield around 10 pm CST. The tornado was 100 yards wide and travelled approximately fifteen and a half miles before dissipating at Wautoma.

Event 5: May 18, 1971

The F/EF-1 tornado was first sighted northeast of Adams and Friendship in Adams County around 4:40 pm CST. The tornado travelled 15 miles as it moved across Highway 21 and then to Hancock in western Waushara County before dissipating around 5:04 pm CST. The tornado reached a maximum width of 100 yards. After crossing Highway 21, the tornado destroyed two house trailers injuring five people and smashed a barn. In Hancock, a large metal warehouse was severely damaged with sheet metal scattered a half mile downwind.

Event 6: July 4, 1985:

The F/EF-0 tornado touched down one mile north of Redgranite around 5:03 pm CST. The tornado was 50 yards wide and skipped along for 5 miles before dissipating one mile southwest of Pine River around 5:17 pm CST. The tornado damaged a house one mile southwest of Pine River. The storm also produced hail up to three and a half inches in the Richford and Hancock areas. The large hail dented 47 new cars at a dealership in Coloma.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

Event 7: August 12, 1985

The F/EF-0 tornado touched down one mile north of Richford around 7:30 pm CST. The tornado was 100 yards wide and travelled a half mile before dissipating. The tornado flattened 2 barns, damaged 5 homes and leveled many trees. Several sheds in Richford were destroyed and extensive window and roof damaged occurred.

Event 8: May 8, 1988

The F/EF-1 tornado travelled 5 miles from one mile south of Mount Morris to 3 miles northeast of Wild Rose between 5:06 and 5:12 pm CST. The tornado was 100 yards wide. Damage to structures and trees were reported along Silver Lake.

Event 9: September 19, 1988

A brief tornado (F/EF-0) developed one mile east of Plainfield at 4:05 pm CST. The tornado was 25 yards wide and only travelled a tenth of a mile. Little damage noted in the monthly storm report.

Event 10: August 29, 1992

The F/EF-3 tornado touched down east of Big Flats in Adams County around 7 pm CST. The tornado skipped along a five mile path, toppling trees and downing a 24 by 30 foot building. The killer tornado travelled a 28 mile path across Adams and Waushara Counties. The tornado was noted north of Coloma 710 pm just CST. The tornado then moved to Wautoma to just north of Redgranite and then to three miles southeast of Poy Sippi before dissipating around 7:55 pm CST. The hardest hit area was just south of Wautoma where a woman was killed when her mobile home was hurled several hundred feet into a parking lot. In addition, 30 people were injured, several critically. The tornado caused over ten million dollars in damage. Forty-eight homes were destroyed and ninety-five other structures sustained major damage, 289 received minor damage. 950 acres of trees were toppled by the tornadic winds.

Event 11: October 8, 1992

The F/EF-1 tornado touched down in the Gilbert Lakes area about 5 miles northeast of Wild Rose around 4:48 pm CST. The tornado was 400 yards wide and was on the ground for a mile. Fifteen homes and buildings were damaged. 500 oak and pine trees were also damaged.

Event 12: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed two and a half miles south of Spring Lake around 6:38 pm CST. The tornado was 25 yards wide and travelled 8 miles before dissipating around 6:55 pm CST two miles west of Auroraville. Only minor damage was noted.

Event 13: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado developed a half mile east of Dakota around 7:15 pm CST. The tornado was 35 yards wide and travelled 12 miles before dissipating around 7:35 pm CST two miles south of Redgranite. Only minor damage was noted.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

Event 14: June 8, 1993

Three weak tornadoes touched down across Waushara County on the evening of June 8th. The F/EF-0 tornado touched down 5 miles southeast of Redgranite around 7:35 pm CST. The tornado was 25 yards wide and travelled 6 miles before dissipating at 7:45 pm three miles southeast of Auroraville. Only minor damage was noted.

Event 15: August 27, 1994

The F/EF-1 tornado formed in Hancock around 9:07 pm CST. The tornado was 75 yards wide and was on the ground for a mile and a half.

Event 16: July 16, 1997

The F/EF-0 tornado touched down in Hancock at 4:41 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating at 4:42 pm CST. The tornado touched down in an open field in Hancock.

Event 17: June 16, 1998

The F/EF-0 was designated a landspout in the monthly storm report. The tornado touched down 3 miles west northwest of Coloma at 3 pm CST. The tornado was 20 yards wide and was on the ground for a tenth of a mile. No damage was reported.

Event 18: June 4, 2005

The F/EF-0 touched down one mile east of Auroraville at 1:54 pm CST. The tornado was 75 yards wide and was on the ground for two tenths of a mile. No significant damage was noted from this tornado.

Event 19: June 4, 2005

The F/EF-0 touched down 2 miles northwest of Borth at 2:05 pm CST. The tornado was 50 yards wide and was on the ground for a tenth of a mile. No significant damage was noted from this tornado.

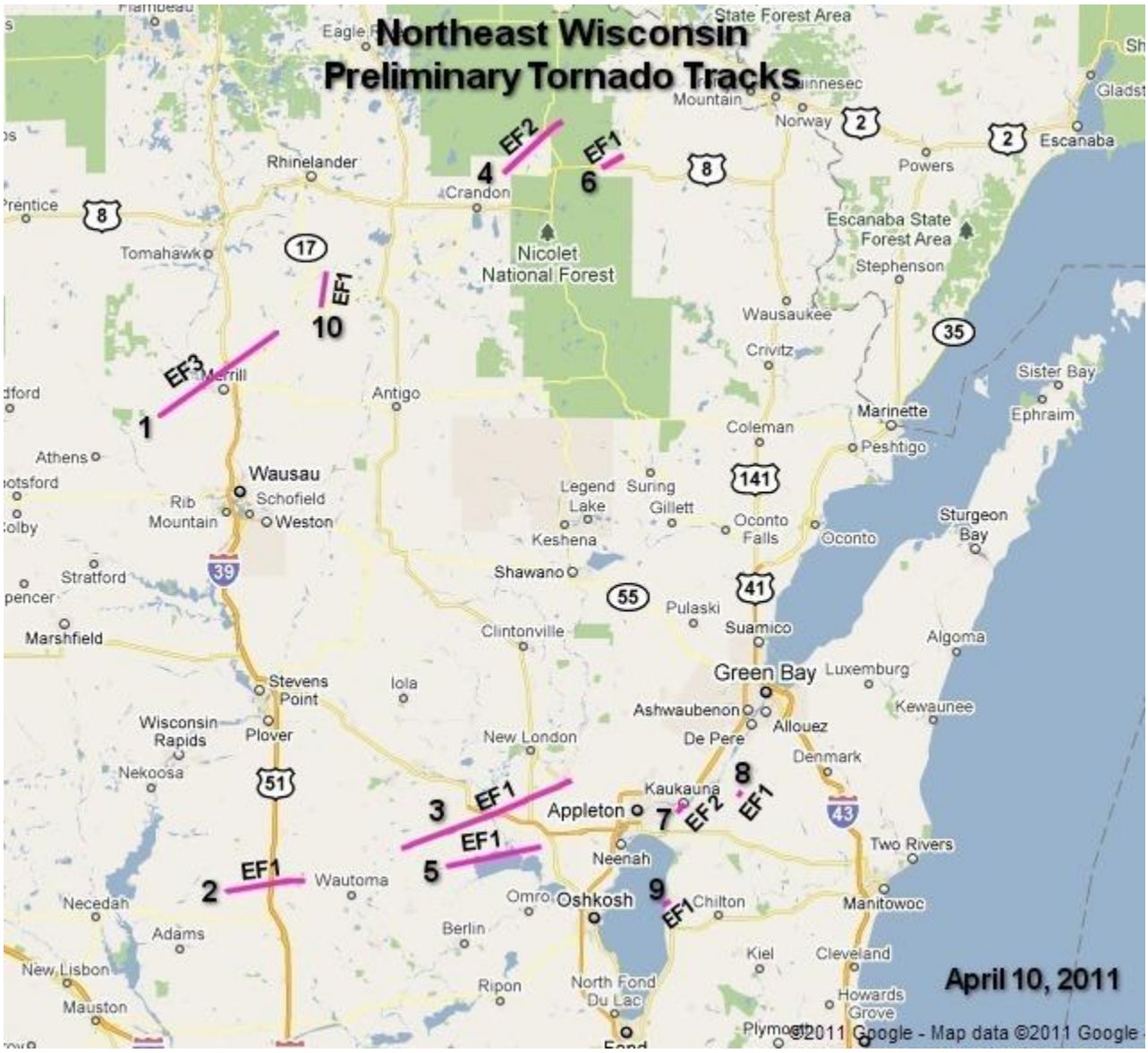
Event 20: August 18, 2005

The F/EF-0 tornado touched down 6 miles west southwest of Wautoma at 5:32 pm CST. The tornado was 80 yards wide and was on the ground for two miles before dissipating 3.7 miles south of Wautoma at 5:36 pm CST. The tornado snapped off or uprooted many trees and caused damage to a few buildings and some farm equipment. A tree fell onto a large pole building, causing major damage to one of its sides. A porch at a residence was destroyed by a fallen tree limb; while a portion of the metal roof of a barn was torn from it and thrown about 200 feet. An irrigation system was also damaged.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

Event 21: April 10, 2011

The F/EF-1 tornado developed at approximately 6:06 pm CST one mile southwest of Saxeville in Waushara County and moved east-northeast across east-central Wisconsin. Numerous pine trees were snapped or uprooted near the initial point of contact. As the tornado moved into West Bloomfield, several farm buildings were heavily damaged, including a barn than collapsed. The tornado had an average width of 100 yards, but it was not on the ground continuously. The tornado entered Waupaca County at 6:20 pm CST southwest of Fremont. Several farm buildings were impacted by the tornado in addition to many trees. Near Readfield, a barn was lifted and rolled off its foundation. A poorly anchored house roof, which overhung the house walls was completely removed with the debris strewn nearly a quarter of a mile to the northeast. The average width of the tornado was 100 yards. The tornado moved into Outagamie County at 6:32 pm CST. The tornado, which was not on the ground the entire time, damaged a couple of farm buildings just south of Hortonville before it dissipated. One of the buildings lost part of its roof. The average width was 100 yards.



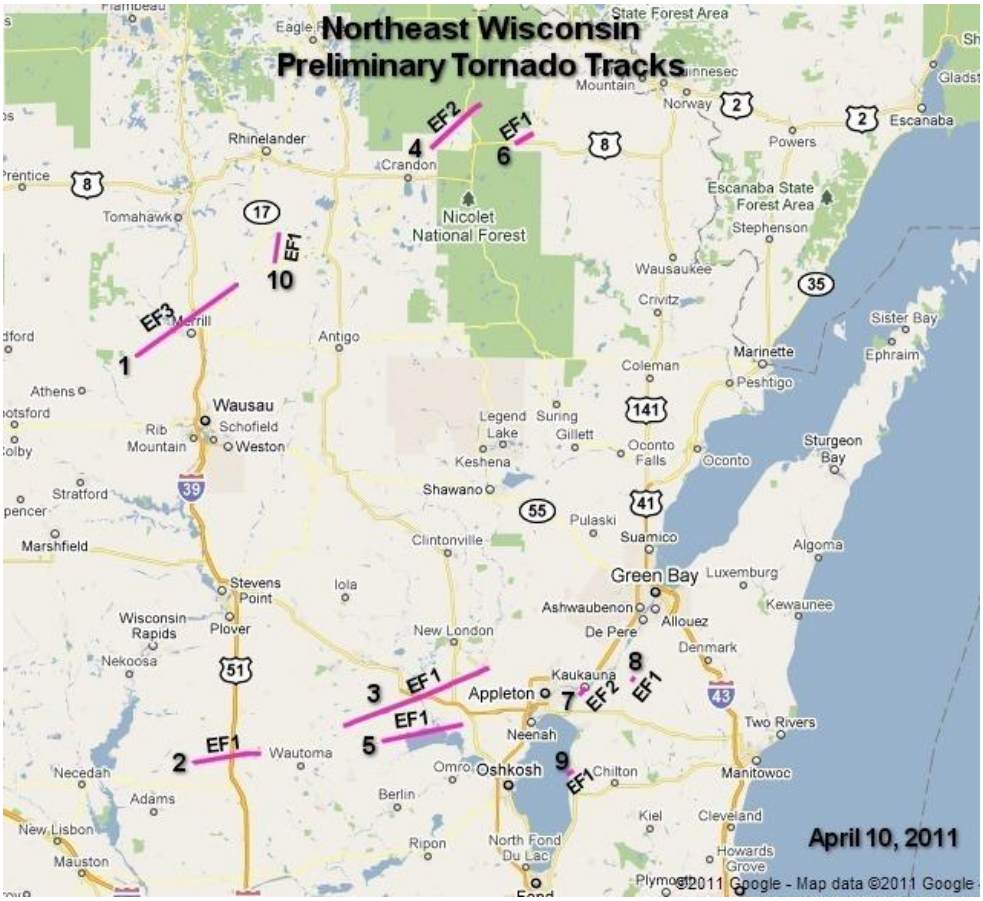
TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WAUSHARA COUNTY

Event 22: April 10, 2011

The F/EF-2 tornado developed 3.5 miles southeast of Argonne and moved northeast across Forest County. The tornado uprooted and snapped hundreds of trees, some of which fell on vacation cabins along the path of the tornado. The hardest hit area was several miles east Argonne shortly after the tornado developed. A large part of the roof of a house was removed. The tornado continued northeast in Florence County 6:46 pm CST. The average width of the tornado was 250 yards in Forest County. In Florence County, several large tree branches were broken before the tornado dissipated. The average path width of the tornado in Florence County was 75 yards.

Event 23: April 10, 2011

The F/EF-1 tornado developed 0.3 miles northwest of Poy Sippi, then moved east-northeast over the north shore of Lake Poygan. The tornado then entered Winnebago County at 7:04 pm CST. In Waushara County, the tornado damaged a house and destroyed a barn in the Poy Sippi area. Another barn was flattened near the north shore of Lake Poygan. Many pine trees were uprooted or snapped along the path of the storm. The average path width in Waushara County was 100 yards. In Winnebago County, the tornado moved along the north shore of Lake Poygan, causing most of the damage near Boom Bay on the northeast shore of Lake Poygan. Two homes were heavily damaged as portions of their roofs were partially ripped off. Several other houses sustained lesser damage in this area. In addition, two small mobile homes were rolled on their side and many trees were uprooted or snapped. The tornado dissipated about 2 miles west of Winchester, although damage occurred east and southeast of this location from straight-line thunderstorm winds. The average path width in Winnebago County was 100 yards.



TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WINNEBAGO COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	4	3	1956	1345-1353	8 SW Eureka to 2 W Omro	4	400	11.5
2	5	28	1959	1515	6 N to 9 NE Oshkosh	1	MSG	9
3	5	21	1960	1730	15 W Oshkosh	1	MSG	MSG
4	5	8	1964	1830-1906	Winneconne-Wrightstown	2	100	35.0
5	6	6	1971	2315	5 SW Oshkosh	1	50	3.8
6	6	13	1971	1630	8 NW Oshkosh	1	50	0.3
7	7	30	1971	0700	4 E Oshkosh (waterspout)	0	MSG	0.1
8	4	21	1974	1440-1508	5 S Ripon - Oshkosh	4	200	26.0
9	6	20	1979	1345	3 S Oshkosh	1	MSG	MSG
10	4	27	1984	1520-1540	1 NE Winneconne - Freedom	4	600	27.5
11	7	26	1984	1300-1310	5 E Oshkosh (waterspout)	0	25	0.1
12	8	14	1987	1740-1743	1 W Menasha	1	100	0.3
13	5	24	1989	2010-2015	3 S Oshkosh	1	50	1.2
14	6	8	1993	1735	1 E Pickett	0	25	0.1
15	7	18	1996	1745	5 NE Oshkosh (waterspout)	0	MSG	0.1
16	8	23	1998	1522	Menasha	0	10	0.1
17	5	6	2002	1630-1640	5 NW - 2.5 N Winneconne	0	50	4.0
18	5	6	2002	1702	8 N Oshkosh - Wittman Field	0	20	0.1
19	6	8	2003	1140	4 W Oshkosh - Wittman Field	0	15	0.1
20	6	8	2003	1220-1226	5 E - 5.5 ESE Oshkosh Wittman Field	0	40	0.5
21	5	6	2005	1524-1525	7 ESE - 7.8 ESE Oshkosh - Wittman Field	0	50	0.8
22	6	9	2005	1740-1750	5 SE - 5 E Oshkosh	0	40	3.0
23	6	10	2005	1505	1 N Winneconne	0	20	0.1
24	6	10	2005	1910	4 ESE Oshkosh	0	20	0.1
25	6	10	2005	1922	3 E Oshkosh	0	20	0.1
26	6	10	2005	1948	3 E Oshkosh	0	20	0.1
27	8	18	2005	1840-1848	4.5 W - 2.6 NW Neenah	0	50	4.0
28	7	19	2008	2144-2145	3.8 WNW to 3.4 WNW Menasha	1	40	0.5
29	5	4	2010	1810-1812	2.7 SE Zittau to 2.7 W Winchester	1	100	0.7
30	5	4	2010	1813-1817	2.2 SSW Winchester – 0.8 NNW Larsen	0	100	3.4
31	4	10	2011	1853-1904	0.3 NW Poy Sippi – 2.3 WSW Winchester	1	150	14.9
32	7	27	2014	1805	3.5 SE Oshkosh Wittman Field	0	10	0.1
33	8	18	2014	1523-1525	3.3 NE Winchester – 4.0 NNE Larsen	0	50	2.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WINNEBAGO COUNTY

Event 1: April 3, 1956

Unseasonably warm air ahead of a strong cold front triggered showers and thunderstorms across the state. The F/EF-4 tornado developed near Berlin in Green Lake County around 1:45 pm CST and travelled 11.5 miles across rural areas of southeast Waushara County near the town of Aurora; then dissipated around 1:53 pm CST two miles west of Omro in Winnebago County. The tornado was 440 yards wide. Berlin was hit the hardest with six killed and 50 injured. Severe storms killed eight people across the state on this day.

Event 2: May 28, 1959

The F/EF-1 tornado struck 6 miles north of Oshkosh around 3:15 pm CST. The tornado travelled nine miles before dissipating 9 miles northeast of Oshkosh.

Event 3: May 21, 1960

The F/EF-1 tornado touched down fifteen miles west of Oshkosh around 5:30 pm CST.

Event 4: May 8, 1964

Another long tracked F/EF-2 tornado was noted on May 8, 1964 across northeast Wisconsin. The tornado developed near Winneconne in Winnebago County around 6:30 pm CST. The tornado travelled northeast across Menasha, striking the John Strange Paper Company. The tornado continued into Neenah, near the Fox Point Shopping Center. The Fox Point Shopping Center suffered extensive damage where windows were blown in, and sections of the roof were blown off. The tornado continued into the southeast corner of Appleton near the Calumet Street power substation. The tornado finally dissipated in Wrightstown around 7:06 pm. At least ten barns were destroyed near Kaukauna.

Event 5: June 6, 1971

The F/EF-1 tornado was reported 5 miles southwest of Oshkosh around 11:15 pm CST. The tornado was 50 yards wide and travelled nearly 4 miles before it dissipated. The tornado demolished one barn and damaged several others on highway 26 about five miles southwest of Oshkosh.

Event 6: June 13, 1971

The public reported the tornado 8 miles northwest of Oshkosh around 4:30 pm CST. The F/EF-1 tornado was 50 yards wide and only travelled a quarter of a mile. Many trees were down in small grove eight miles northwest of Oshkosh.

Event 7: July 30, 1971

Numerous waterspouts (F/EF-0) were reported about 4 miles east of Oshkosh around 7 am CST. The waterspouts formed east of Oshkosh as cold air with large cyclonic vorticity moved over the warm lake according to the monthly storm report.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WINNEBAGO COUNTY

Event 8: April 21, 1974

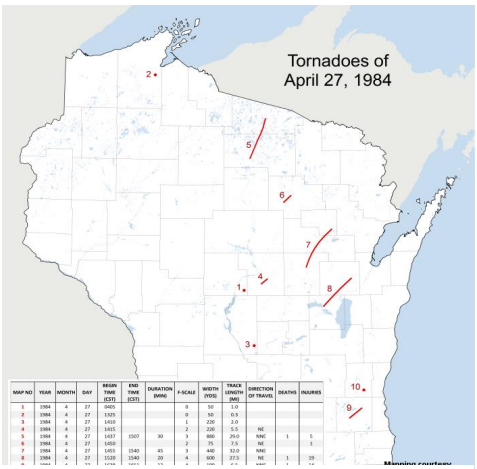
The F/EF-4 tornado first touched down 5 miles south of Ripon in Fond Du Lac County at about 2:40 pm CST. The tornado destroyed or severely damaged buildings on about 30 farms before approaching southwest Oshkosh at 2:58 pm CST. The tornado lifted 10 minutes later over northwest Oshkosh. The tornado travelled 26 miles and reached a maximum width of 200 yards. At Oshkosh, the tornado damaged 400 homes and business with 33 of the houses completely destroyed. Damage was estimated at 4.2 million dollars. In Oshkosh, thirty-five people were treated for injuries with only ten people injured seriously enough to be hospitalized.

Event 9: June 20, 1979

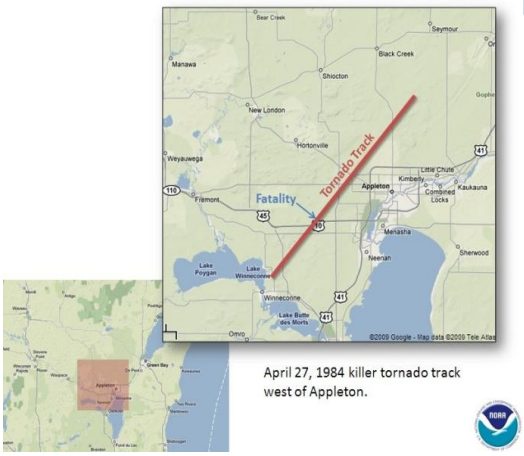
The F/EF-1 tornado touched down 3 miles south of Oshkosh around 1:45 pm CST. The tornado on this date followed almost the same path as another more destructive twister that hit the city in April 1974. The tornado destroyed two mobile homes and severely damaged five others. Four people were hospitalized due to the injuries they suffered from the tornado.

Event 10: April 27, 1984

The article for this date was written by Scott Cultice, forecaster at the National Weather Service in Green Bay. During the late afternoon of April 27, 1984, multiple super cell thunderstorms developed ahead of a strong cold front that moved across Wisconsin. Ten tornadoes were reported across the state, including three killer tornadoes: Tornadoes were reported in northern Wisconsin near St. Germain, one west of Appleton, and the third in southeast Wisconsin in Waukesha County. This outbreak of killer tornadoes was one of the bigger outbreaks in northeast Wisconsin since accurate tornado records began in 1950.



MAP NO	YEAR	MONTH	DAY	BEGIN TIME (CST)	END TIME (CST)	DURATION (MIN)	F-SCALE	WIDTH (YDS)	TRACK LENGTH (MI)	DIRECTION OF TRAVEL	DEATHS	INJURIES
1	1984	4	27	0405			0	50	1.0			
2	1984	4	27	1325			0	50	0.5			
3	1984	4	27	1410			1	220	2.0			
4	1984	4	27	1415			2	220	5.5	NE		
5	1984	4	27	1437	1507	30	3	880	29.0	NNE	1	5
6	1984	4	27	1450			2	75	7.5	NE		1
7	1984	4	27	1455	1540	45	3	440	32.0	NNE		
8	1984	4	27	1520	1540	20	4	600	27.5	NE	1	39



The Fox Valley Tornado

Around 3:20 pm CST, a tornado formed near the town of Butte des Morts in northern Winnebago County and quickly intensified into a destructive tornado. The violent storm moved northeast across the town of Clayton, killing one person and destroying many houses. The tornado continued to track northeast toward the northwest side of the city of Appleton. By about 3:40 pm CST, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom.

An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured 19 more. Total cost of the destruction over the Fox Valley was $2.5 million ($15 million in today's dollars). The tornado travelled on the ground at about 40 mph and, for a short time, was over one quarter mile wide. The twister was on the ground for over 27 miles. It was classified as an F4 tornado, now referred to as an EF4 on today's Enhanced Fujita Scale (wind speeds of 166-200 mph).

Other tornadoes on April 27, 1984 across Northeast Wisconsin

In addition to the Fox Valley tornado, five other tornadoes were reported across central and northeast Wisconsin that day. An F3 tornado, with winds estimated near 140 mph, tore through Oneida and Vilas counties, killing one person south of St. Germain and injuring eight others. Another F3 tornado was reported across Waupaca, Shawano, and Menominee counties causing considerable damage. Other tornados were observed over Wood, Portage, and Langlade counties.

Event 11: July 26, 1984

A waterspout (F/EF-0) was noted 5 miles east of Oshkosh on Lake Winnebago between 1 pm and 1:10 pm CST.

Event 12: August 14, 1987

Considerable damage from the F/EF-1 tornado occurred one mile west of Menasha between 5:40 and 5:43 pm CST. The tornado was 100 yards wide and travelled a quarter of a mile. Most of the damage occurred at a warehouse where siding and a roof were twisted and ripped away. Two 100 square foot cement slabs were also torn from the building. Trees and power lines were downed as well.

Event 13: May 24, 1989

The F/EF-1 tornado touched down 3 miles south of Oshkosh between 8:10 and 8:15 pm CST. The tornado was 50 yards wide and travelled 1.2 miles before dissipating.

Event 14: June 8, 1993

The F/EF-0 small tornado briefly touched down in an open filed one mile east of Pickett around 5:35 pm CST. The tornado was 25 yards wide and travelled a tenth of a mile.

Event 15: July 18, 1996

A waterspout (F/EF-0) was spotted 5 miles east of Oshkosh over Lake Winnebago around 5:45 pm CST.

Event 16: August 23, 1998

A brief F/EF-0 tornado touched down near Menasha at 3:22 pm CST. The tornado was 10 yards wide and travelled a tenth of a mile before dissipating. No damage was noted on the monthly storm report.

Event 17: May 6, 2002

The F/EF-0 tornado touched down 5 miles northwest of Winneconne around 4:30 pm CST. The tornado was 50 yards wide and travelled four miles on the ground before dissipating 2.5 miles north of Winneconne around 4:40 pm CST. The tornado moved across Lake Winneconne.

Event 18: May 6, 2002

A brief F/EF-0 tornado touched down 8 miles north of Wittman Field in Oshkosh at 5:02 pm CST. The tornado was 20 yards wide and was only on the ground for a tenth of a mile. No damage was noted with the tornado.

Event 19: June 8, 2003

A brief F/EF-0 tornado touched down 4 miles west of Oshkosh at 11:40 am CST. The tornado was 15 yards wide and travelled a tenth of a mile before dissipating.

Event 20: June 8, 2003

A waterspout (F/EF-0) was photographed about 5 miles east of Oshkosh Wittman Field at 12:20 pm CST. The waterspout was 40 yards wide and travelled a half mile before dissipating 5.5 miles east southeast of Oshkosh Wittman Field. The waterspout was observed by numerous participants of a fishing tournament that was taking place on the lake.

Photo by Troy Peterson

Event 21: May 6, 2005

The F/EF-0 waterspout touched down 7 miles east southeast of Oshkosh Wittman Field at 3:24 pm CST. The waterspout was 50 yards wide and was on the ground for eight tenths of a mile before dissipating 7.8 miles east southeast of Oshkosh Wittman Field at 3:25 pm CST.

Event 22: June 9, 2005

A waterspout (F/EF-0) touched down 5 miles southeast of Oshkosh on Lake Winnebago at 5:40 pm CST. The waterspout was 40 yards wide and travelled 3 miles before dissipating 5 miles east of Oshkosh at 5:50 pm CST.

Event 23: June 10, 2005

The F/EF-0 tornado touched down one mile north of Winneconne at 3:05 pm CST. The tornado was 20 yards wide and was on the ground a tenth of a mile.

Event 24: June 10, 2005

A waterspout (F/EF-0) was reported 4 miles east southeast of Oshkosh on Lake Winnebago at 7:10 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 25: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago at 7:22 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 26: June 10, 2005

A waterspout (F/EF-0) was reported 3 miles east southeast of Oshkosh on Lake Winnebago at 7:48 pm CST. The waterspout was 20 yards wide and was on the water a tenth of a mile. This was one of 3 waterspouts reported on Lake Winnebago on this evening.

Event 27: August 18, 2005

The F/EF-0 tornado touched down four and a half miles west of Neenah at 6:40 pm CST. The tornado was 50 yards wide and was on the ground for four miles before dissipating 2.6 miles northwest of Neenah at 6:48 pm CST. The tornado downed trees, stripping some siding from a home and destroying a corn crib.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WINNEBAGO COUNTY

Event 28: July 19, 2008

A brief F/EF-1 tornado touched down 3.8 miles west northwest of Menasha around 10:44 pm CST. The tornado was 40 yards wide and travelled a half a mile before it dissipated 3.4 miles west northwest of Menasha at 10:45 pm CST. The tornado produced sporadic damage along a narrow path almost a half a mile long. An apartment complex sustained the heaviest damage. Four buildings were affected, two of which lost parts of their roofs.

Event 29: May 4, 2010

The F/EF-1 tornado touched down 2.7 miles southeast of Zittau around 6:10 pm CST. The tornado was 100 yards wide and travelled seven tenths of a mile before it dissipated 2.7 miles west of Winchester at 6:12 pm CST. The tornado snapped numerous pine trees in a wooded area and threw a gazebo into the side of a house. The tornado also destroyed a 100 year old barn.

Event 30: May 4, 2010

The F/EF-0 tornado touched down 2.2 miles south southwest of Winchester at 6:13 pm CST. The tornado was 100 yards wide and travelled 3.4 miles before dissipating 0.8 miles north northwest of Larsen at 6:17 pm CST. The tornado damaged several structures. It destroyed a shed, swirling 2 by 4's in the air. The 2 by 4's struck a house, damaging the roof. The tornado threw a trailer about 200 yards into a field and ripped siding off a garage. A small camper was knocked over.

Event 31: April 10, 2011

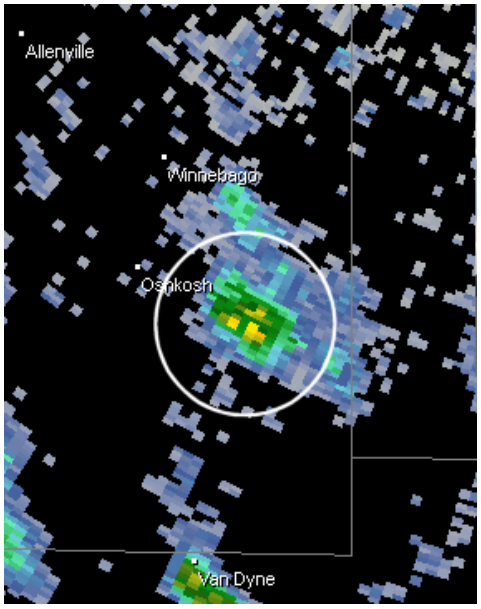
The F/EF-1 tornado developed 0.3 miles northwest of Poy Sippi, then moved east-northeast over the north shore of Lake Poygan. The tornado then entered Winnebago County at 7:04 pm CST. In Waushara County, the tornado damaged a house and destroyed a barn in the Poy Sippi area. Another barn was flattened near the north shore of Lake Poygan. Many pine trees were uprooted or snapped along the path of the storm. The average path width in Waushara County was 100 yards. In Winnebago County, the tornado moved along the north shore of Lake Poygan, causing most of the damage near Boom Bay on the northeast shore of Lake Poygan. Two homes were heavily damaged as portions of their roofs were partially ripped off. Several other houses sustained lesser damage in this area. In addition, two small mobile homes were rolled on their side and many trees were uprooted or snapped. The tornado dissipated about 2 miles west of Winchester, although damage occurred east and southeast of this location from straight-line thunderstorm winds. The average path width in Winnebago County was 100 yards.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WINNEBAGO COUNTY

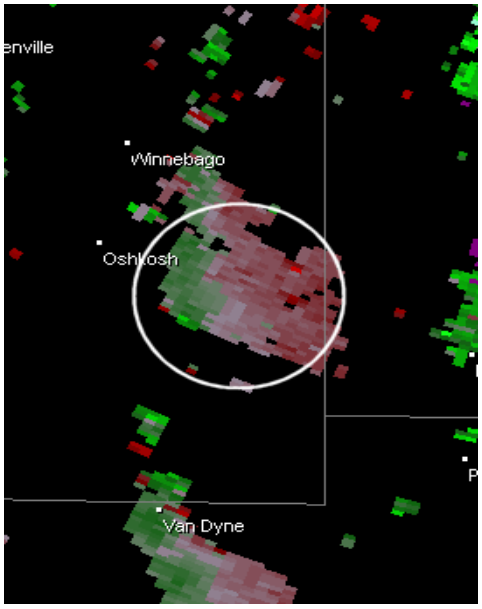
Event 32: July 19, 2008

A very weak and brief waterspout formed under a rain shower over southern Lake Winnebago, about 5 miles southeast of Oshkosh around 6:05 pm CST. The waterspout (photo below) was on the water for a just a few seconds and then dissipated. The parent funnel was seen by hundreds of people across the area. No damage occurred.

Photograph submitted to NWS.



Radar image: Green Bay radar.



Velocity image: Green Bay radar.

Event 33: August 18, 2014

A tornado developed around 3:23 pm CST, causing minor damage as it moved east near Shady Lane a little over three miles northeast of Winchester in northern Winnebago County. The weak tornado EF-0 caused two single wood power poles to partially lean in saturated soil and knocked over a few trees and limbs. Swirl marks could be seen in a field of tall grass. The tornado was not in contact with the ground during the entire path length (a little over two miles) before ending around 3:25 pm CST. The maximum width of the tornado was 50 yards with estimated winds of 65 to 75 mph.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WOOD COUNTY

EVENT	DATE			TIME		F / EF	WIDTH	PATH
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK	(YARDS)	(MILES)
1	5	7	1964	1800	Wisconsin Rapids	2	100	0.5
2	3	31	1967	0005	Marshfield	2	35	1.9
3	7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	2	100	21.4
4	6	17	1970	1835	3 S Wisconsin Rapids	0	100	0.1
5	12	1	1970	0900	12 SE Marshfield	2	200	2.0
6	7	8	1971	0200	Wisconsin Rapids	1	75	2.0
7	6	13	1976	1840-1920	4 W Wisconsin Rapids - 3 NE Stevens Point	1	100	24.6
8	3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	1	35	28.0
9	7	3	1983	1911	5 NE Nekoosa	0	10	0.3
10	4	27	1984	0405	Saratoga	0	50	1.0
11	8	12	1985	1813-1830	6 S Marshfield - Auburndale	2	880	10.0
12	4	20	1992	1600-1620	2 SW Arpin - Bakerville	1	25	9.5
13	8	3	1999	1745	3 W Pittsville	0	10	0.1
14	6	8	2003	1259-1302	4 S - 4.1 S Marshfield Airport	0	50	0.1
15	6	7	2007	1526	2.2 W - 2.1 W Wisconsin Rapids Airport	0	40	0.1
16	7	29	2008	1744-1749	4.2 SE Nasonville to 4.7 WNW Bethel	0	25	1.5
17	7	14	2010	1618-1619	2.5 WSW – 2.2 WSW Veedum	0	50	0.3
18	5	22	2011	1703-1720	5.5 SSE Cranmoor – 4.8 SE Arnott	1	350	31.6
19	8	23	2011	1658	0.3 NW Arpin	0	10	0.1

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WOOD COUNTY

Event 1: May 7, 1964

The F/EF-2 tornado touched down in the city of Wisconsin Rapids around 6 pm CST and travelled a half mile. The maximum width of the tornado was 100 yards. The tornado tore through the Suburban Heights trailer court. There were fourteen injuries, none of them serious. Ten of the trailer homes were ripped from their foundation and tossed up into the air. The body of one was torn off and the frame was left lying upside down 100 yards from its original base. Many of the trailers were occupied by the Wisconsin Rapids Twins ballplayers and their wives. Some damage to roofs and television antennas was reported within the city limits.

Event 2: March 31, 1967

The F/EF-2 tornado touched down in Marshfield around 11:49 pm CST. The tornado travelled approximately two miles and had a maximum with of 35 yards. The tornado destroyed or damaged several buildings including a mobile home plant.

Event 3: July 22, 1967

The F/EF-2 tornado developed around 11 pm CST near Loyal in Clark County. The tornado then moved east southeast into Wood County. The tornado travelled nearly 21 miles before dissipating five miles east of Marshfield around 11:18 pm CST. The maximum width of the tornado was 100 yards. The tornado destroyed three barns and killed sixteen cattle near Loyal in Clark County. Several buildings and mobile homes were destroyed at Marshfield in Wood County.

Event 4: June 17, 1970

The F/EF-0 touched down briefly 3 miles south of Wisconsin Rapids around 6:35 pm CST. The tornado was 100 yards wide and only travelled a tenth of a mile. According to the monthly storm report, the tornado touched down in open country.

Event 5: December 1, 1970

Four rare December tornadoes were reported on this date across north-central and northeast Wisconsin. The F/EF-2 tornado touched down 12 miles southeast of Marshfield or two miles southeast of Arpin on the Fred Cahler farm around 9 am CST. The tornado travelled 2 miles while reaching a maximum width of 200 yards before dissipating. Several farm buildings were destroyed or damaged on the Fred Cahler farm. The tornadoes on this day are on the only December tornadoes recorded in the NWS Green Bay Service area.

Event 6: July 8, 1971

The F/EF-1 tornado moved through open country just north of Wisconsin Rapids around 2 am CST. The tornado was 75 yards wide and travelled about two miles before it dissipated. One house trailer moved off its foundation while there was damage to trees in the area.

Event 7: June 13, 1976

The F/EF-1 tornado formed 4 miles west of Wisconsin Rapids around 6:40 pm CST. The tornado continued to move east northeast to three miles northeast of Stevens Point near the intersection of Highway 51 and Business 51 before dissipating around 7:20 pm CST three miles northeast of Stevens Point. The tornado travelled nineteen miles and reached a maximum width of 100 yards. Many trees were flattened. In Stevens Point, scattered damage was reported just north of the city and a roof was blown off an apartment complex. Several other buildings also suffered damage. Two people in the apartment complex were injured from fallen debris.

Event 8: March 30, 1982

The tornado initially touched down in the township of Armenia in Juneau County where it destroyed a house and 3 nearby mobile homes. Two occupants of the house were injured. The F/EF-1 tornado then moved northeast to just southeast of Nekoosa in Wood County around 2:05 pm CST. The tornado travelled intermittently on a 28 mile path before dissipating 3 miles southwest of Stevens Point in Portage County around 2:40 pm CST.

Event 9: July 3, 1983:

The F/EF-0 tornado briefly touched down 5 miles northeast of Nekoosa around 7:11 pm CST. The tornado was approximately 10 yards wide and travelled three tenths of a mile before dissipating.

Event 10: April 27, 1984:

The F/EF-0 tornado briefly touched down in the township of Saratoga around 4:05 am CST. The tornado was 50 yards wide and travelled a mile before dissipating. Numerous trees were downed and some residential damage occurred. Hail the size of three quarters of an inch also fell during the storm.

Event 11: August 12, 1985

A large F/EF-2 tornado touched down around 6:13 pm CST six miles south of Marshfield along highway B. The tornado travelled northeast across Highway EE and then slammed Auburndale. The tornado was on the ground for ten miles before the tornado dissipated in Auburndale around 6:30 pm CST. At its peak, the tornado was a massive 880 yards wide. Damage was estimated at $5.5 million dollars. Fifty-eight dwellings and forty farms suffered damage. The Apache Gardens subdivision and the Wishkershen Trailer Park in Auburndale received substantial damage.

Event 12: April 20, 1992:

The F/EF-1 tornado formed 2 miles southwest of Arpin around 4 pm CST. The tornado was 25 yards wide and travelled 9.5 miles before dissipating a half mile south of Bethel or near Bakerville around 4:20 pm CST. Damage included: a shed was knocked down near Arpin, a mobile home was picked up and twisted around near Bethel and some roof damage was reported at Bakerville

Event 13: August 3, 1999

The F/EF-0 tornado briefly touched down 3 miles west of Pittsville at 5:45 pm CST. The tornado was 10 yards wide and was on the ground for a tenth of a mile. The tornado knocked down trees 3 miles west of Pittsville.

Event 14: June 8, 2003

The F/EF-0 tornado touched down 4 miles south of the Marshfield Municipal Airport in Marshfield at 12:59 pm CST. The tornado was 50 yards wide and travelled a tenth of a mile before dissipating 4.1 miles south of the Marshfield Municipal Airport at 1:02 pm CST. The tornado tore siding from a garage, broke windows, destroyed a play house and dog house, and blew two 50 pound barrels 200 yards away.

Event 15: June 7, 2007

The F/EF-0 tornado touched down 2.2 miles south of Wisconsin Rapids at 3:26 pm CST. The brief tornado was seen by a storm chaser before dissipating 2.1 miles south of Wisconsin Rapids. The same storm also produced hail up to 5.5 inches in diameter in Port Edwards and Wisconsin Rapids.

TORNADO REFERENCE GUIDE – TORNADOES BY COUNTY
WOOD COUNTY

Event 16: July 29, 2008

The F/EF-0 tornado touched down 4.2 miles southeast of Nasonville in Wood County at 5:44 pm CST. The tornado was 25 yards wide and travelled a mile and a half before dissipating 4.7 miles west of Bethel at 5:49 pm CST. The tornado touched down north of Pittsville, tearing leaves and twigs from tops of trees. The tornado was seen by a county sheriff.

Event 17: July 14, 2010

The F/EF-0 tornado touched down 2.5 miles west southwest of Veedum in Wood County at 4:18 pm CST. The tornado travelled a quarter of a mile and was 50 yards wide before it dissipated 2.2 miles west southwest of Veedum. The brief tornado was reported by the public and confirmed by local emergency management about 5 miles west of Pittsville. A dozen trees were knocked down and several large tree limbs fell onto a house. Wind speed estimated at 80 mph.

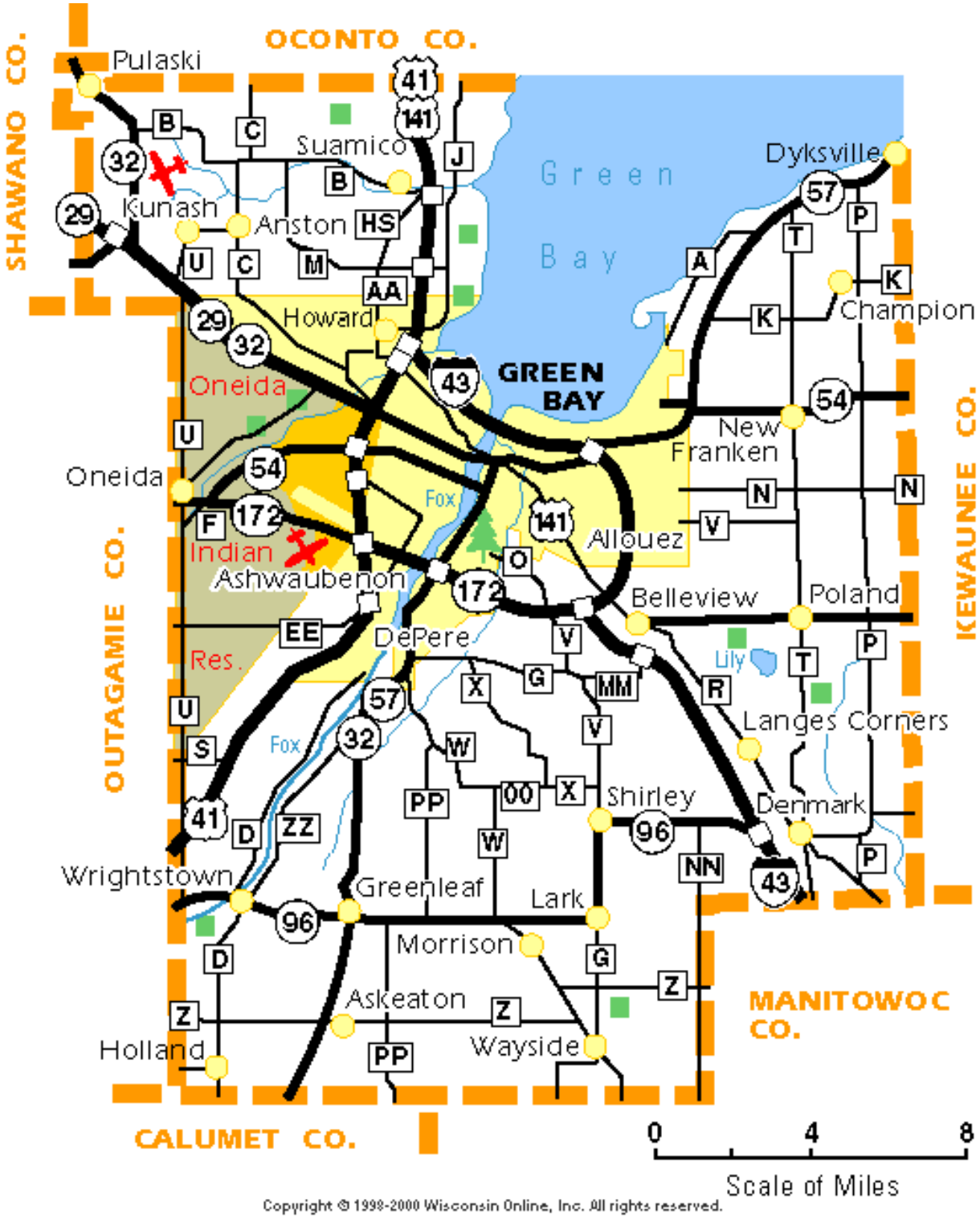
Event 18: May 22, 2011

The F/EF-1 tornado moved out of Juneau County at 5:03 pm CST and moved across southern Wood County. The storm hit a campground on the east shore of the Wisconsin River about three miles south of Nekoosa. Over 100 pine trees were snapped and uprooted on the campground, some two feet in diameter. Several camper vehicles were damaged by fallen trees. The tornado was seen by campground visitors just before 5:15 pm CST. The tornado continued east-northeast and snapped or uprooted hundreds of additional trees south of Wisconsin Rapids. The storm damaged at least six homes and several other buildings about six miles south-southeast of Wisconsin Rapids. One of the houses lost the entire roof of a garage. A woman was in the garage at the time. She sustained injuries when the garage fell on the truck that she was taking shelter in. This area experienced a high-end F/EF-1 damage with winds at least 95 to 105 mph. The tornado entered Portage County around 5:20 pm CST. The tornado moved across mainly farmland. The twister continued to snap trees and overturn agricultural irrigation systems. About six miles south of Plover, a nearly half-mile long row of power poles were bent over. The tornado crossed Interstate 39 at Coddington Road two miles west of Keene. The tornado grew to nearly 700 yards wide as it passed just north of Keene and heavily damaged a farmstead. A silo was damaged and a barn was flattened. Several outbuildings were also damaged or destroyed. Along the path, at least two dozen irrigation systems were overturned and damaged resulting in over one million dollars in losses. Many hundreds of trees were snapped or uprooted. This area experienced high end F/EF-1 damage with winds of 100 to 110 mph. The tornado dissipated about 9 miles southeast of Plover at 5:46 pm CST. The average width was 300 yards in Portage County.

Event 19: August 23, 2011

The F/EF-0 tornado was witnessed by local law enforcement. The tornado touched down for less than 10 seconds in a corn field. A couple of stalks of corn were thrown in the air, but no damage was reported. The F/EF-0 tornado was estimated to have winds around 60 mph.

Brown County Severe Weather Facts (1950-2015)



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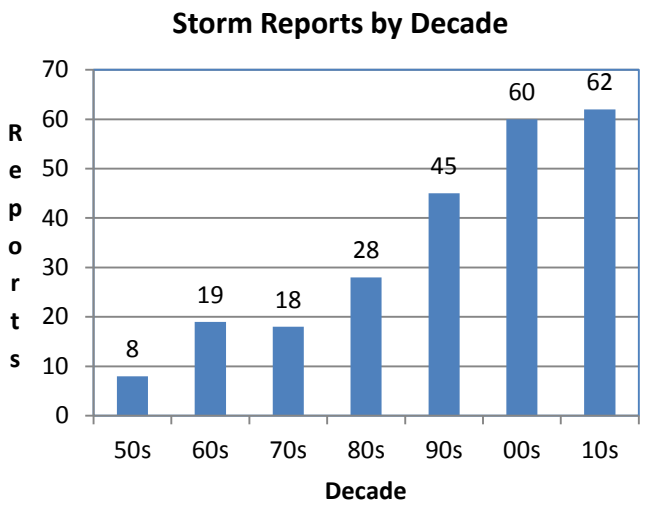
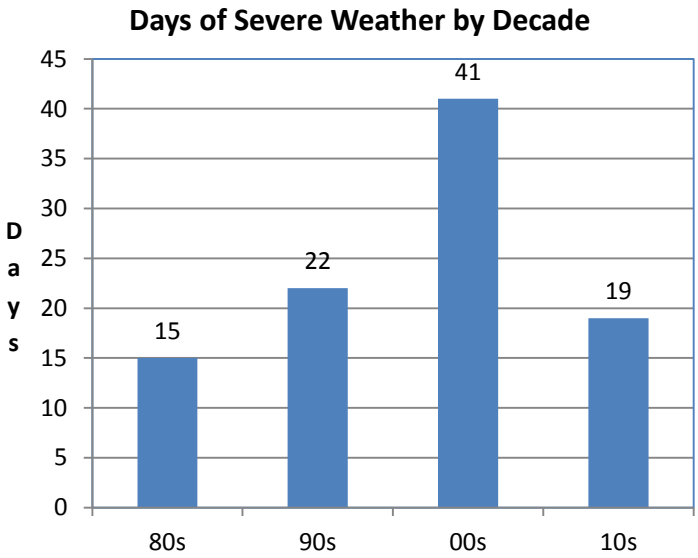
Brown County Severe Weather Facts (1950-2015)



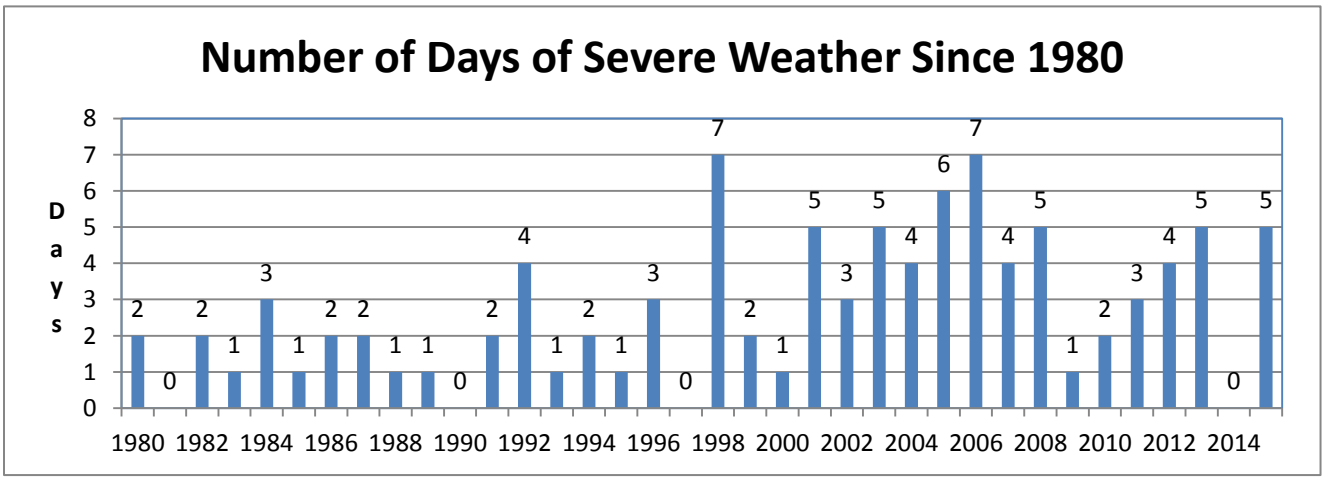
Storm Reports by Decade

Since 1950 there have been 240 documented reports of large hail, damaging winds and tornadoes across Brown County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. Although the number of reports increased 114 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification. There were no severe weather reports across the county in 2014. The last time there were no severe weather reports in a given year was 1997.



Days of Severe Weather by Decade

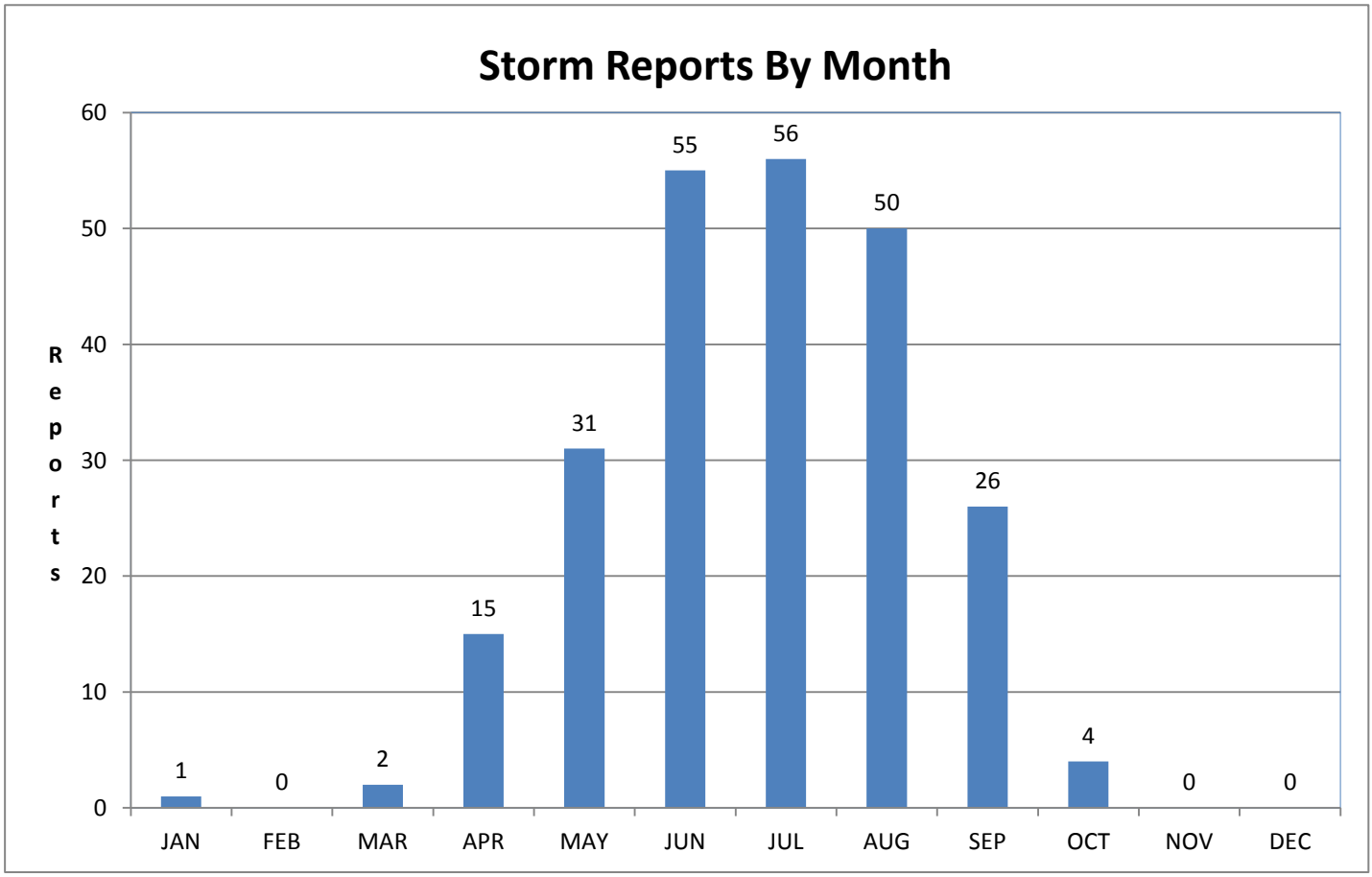
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 173 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Brown County averages 3.8 days of severe weather in a given year. The long term average from 1980-2015 is 2.7 days. The most active years were 1998 and 2006 with 7 days of severe weather; followed by 6 days of severe weather in 2005 and 5 days in 2001, 2003, 2008, 2013 and 2015.



Brown County Severe Weather Facts (1950-2015)

Storm Reports by Month

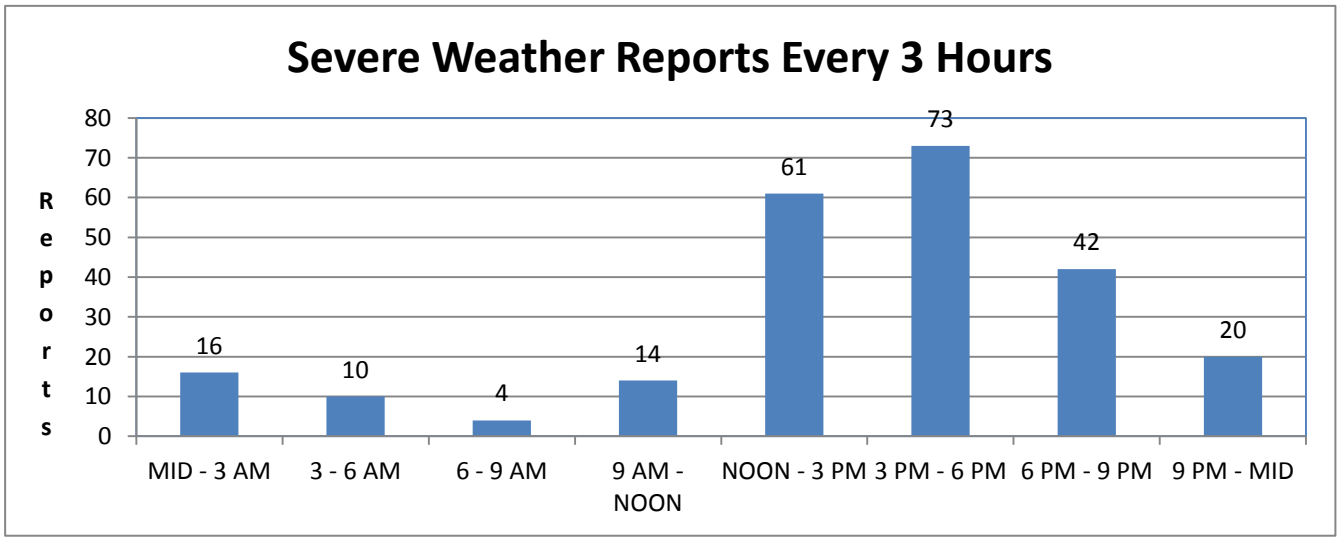
Severe weather has been documented in Brown County in every month except February, November and December. Surprisingly, there has been one report of severe weather during the month of January. On January 24, 1967, a line of thunderstorms produced damaging winds across Brown, Calumet, Winnebago and Outagamie counties during the early evening. On rare occasions, severe weather breaks out during the month of March. The severe weather season begins in earnest in April. The convective season peaks during June and July. The warm season period of May through September accounts for 91 percent of all severe weather reports during the year. Severe weather can occur from time to time in September. Isolated reports of severe weather have been documented in October. The latest report of severe weather in Brown County during the year occurred on October 23, 2004 when winds were reported to 60 mph at Green Bay.

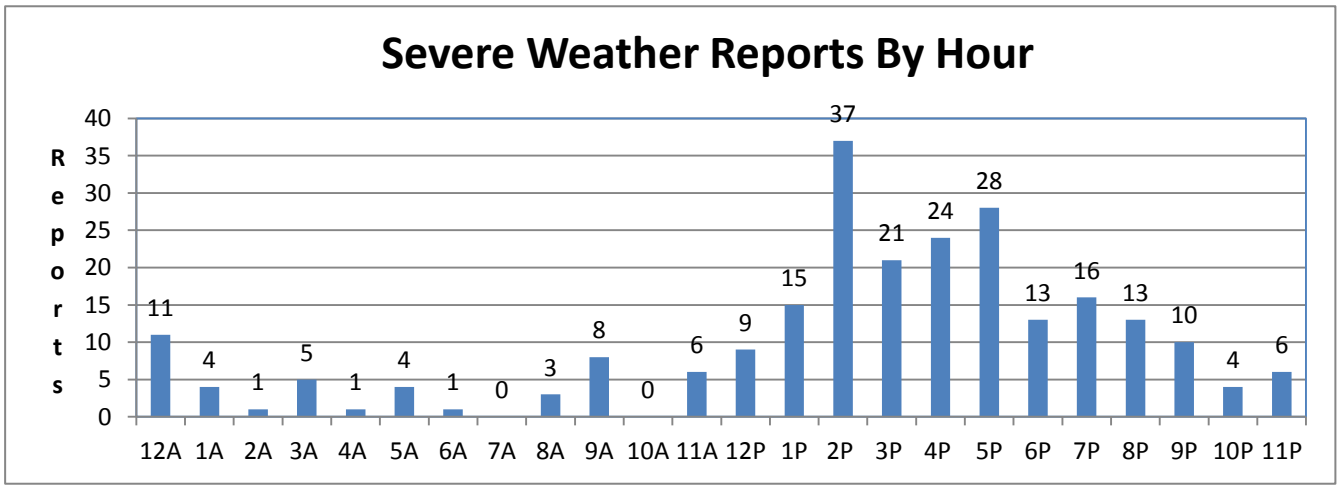


Brown County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Brown County. Seventy percent of all severe weather reports occur between 1 pm and 9 pm local standard time. Standard time was used in this study to avoid confusion between standard and daylight time when it was in effect. In Brown County, the peak number of reports occurred between 2 pm and 6 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. From May through September, there is another peak of severe weather that occurs between midnight and 3 am. In these cases, convection that fires up across the Dakotas and Minnesota works its way into the county overnight. The minimum in severe weather activity occurred from 1 am to 9 am and only accounted for seven percent of all severe weather reports. However, on September 2, 2011 northeast Wisconsin experienced one of the strongest morning severe weather outbreaks in years when severe thunderstorms developed across east central and northeast Wisconsin and moved northeast into Brown County. Numerous reports of severe weather were reported across Winnebago, Waushara, Outagamie and Brown Counties. Hurricane force winds were reported near Wrightstown around 8:45 am and winds were estimated at 95 mph in Outagamie County.

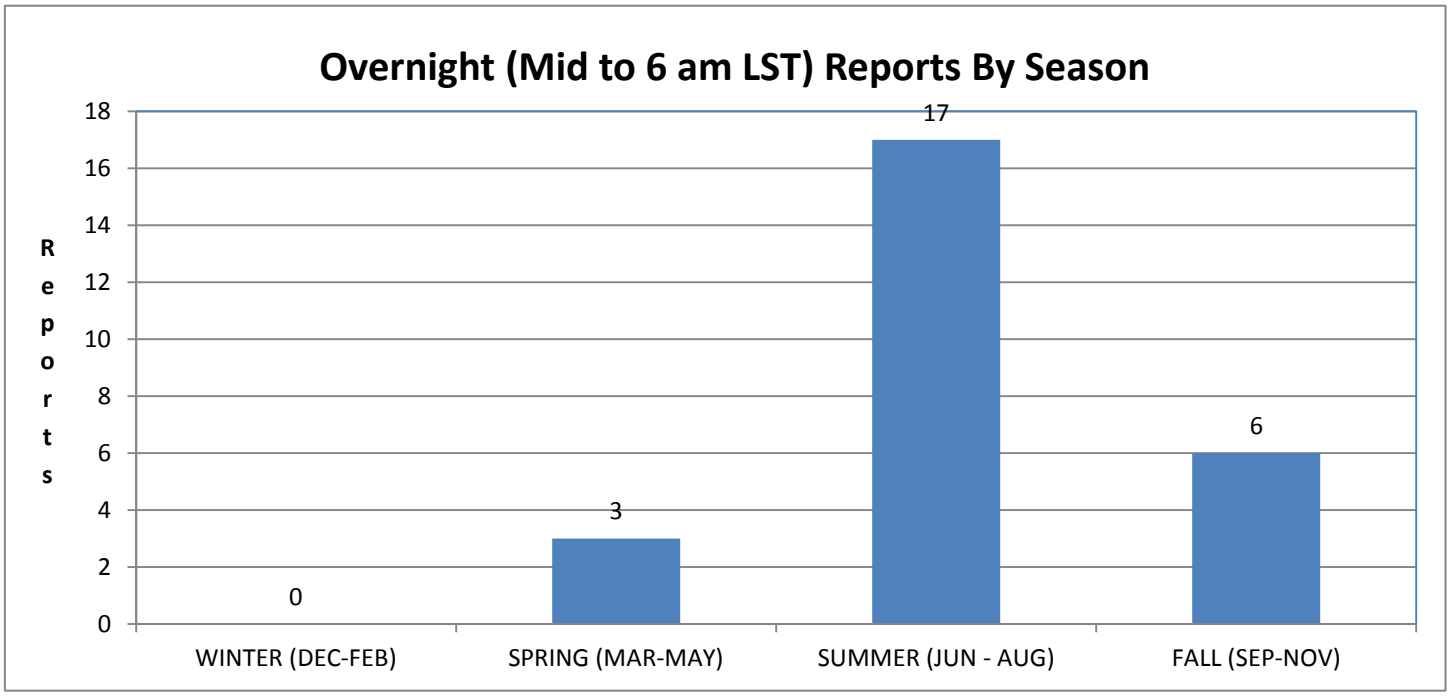




Brown County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 65% of all overnight severe weather reports during the year.



Brown County Severe Weather Facts (1950-2015)

Since record keeping began in 1950, there have been twenty-nine documented tornadoes in Brown County. Of the twenty-nine tornadoes, there have been zero documented tornadoes of F/EF-3 or greater intensity while six tornadoes were rated F/EF-2 intensity (see table below). Twenty-three tornadoes were rated F/EF-0 or F/EF-1. The most tornadoes documented in a single year occurred in 1970 with five tornadoes. Four tornadoes were documented in 1959 and 2013; while two tornadoes were recorded in 1964, 1992 and 2005. A rare late evening/early morning tornado outbreak occurred on August 6-7, 2013 when four tornadoes struck Brown County when a fast moving (60 to 70 mph) line of thunderstorms raced across northeast Wisconsin. Tornadoes were reported in three consecutive years from 1968 to 1970. Since 1950, tornadoes have touched down in fourteen different years. The last tornado to hit Brown County occurred on June 15, 2015 when an F/EF-0 tornado touched down briefly about 1.5 miles NNW of Glenmore between 2:09 pm and 2:10 pm CST.

Brown County Tornadoes

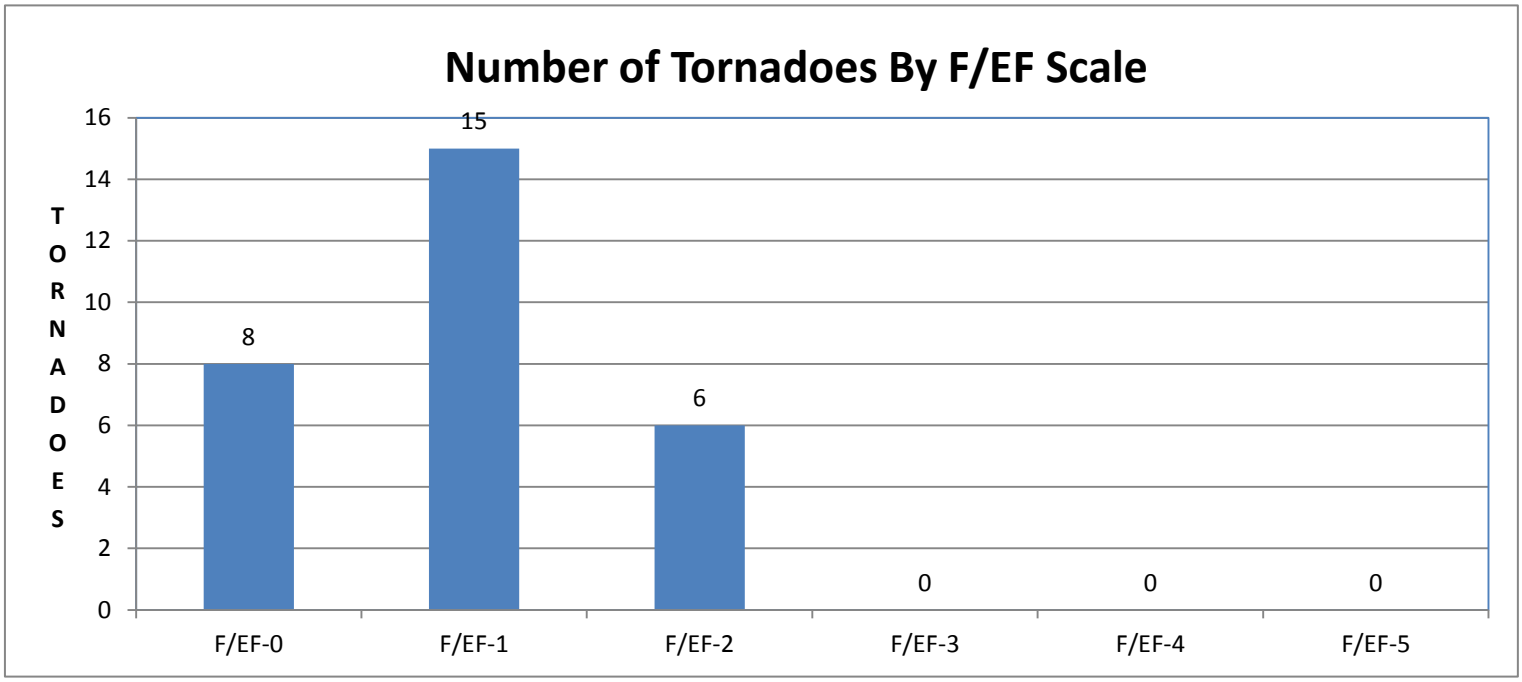
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		7	11	1957	1345	4 SW Denmark	1
2		5	10	1959	2050	Green Bay	2
3		5	28	1959	1530	6 SW De Pere	0
4		5	28	1959	1538	1 SW Greenleaf	1
5		6	11	1959	1300	De Pere	1
6		6	23	1962	1630	2 W Champion	1
7		5	8	1964	1830-1906	Winneconne-Wrightstown	2
8		5	30	1964	1328	Green Bay - east side	0
9		8	16	1968	2120	4 S Pulaski	2
10		6	26	1969	1115-1130	Black Creek - 2 NE Pulaski	2
11		4	22	1970	2040	Ashwaubenon to Green Bay - north side	2
12		4	22	1970	2100	De Pere to Green Bay	2
13		4	22	1970	2110	2 NE Poland	1
14		5	21	1970	2010	Green Bay - north side	0
15		7	30	1970	1205	4 W Suamico	1
16		7	30	1977	2245	0.5 N Forest Junction - 3 W Denmark	1
17		8	9	1979	1856	Green Bay - northeast	1
18		5	16	1992	1920-1930	2 SW Wrightstown	1
19		6	17	1992	1255	2 NE Denmark	0
20		6	23	2004	2027	Green Bay - northwest	0
21		8	18	2005	1945-1949	6 ENE - 6.8 ENE Wrightstown	1
22		9	13	2005	1709-1712	De Pere to Allouez	0
23		8	20	2010	1520-1522	2 SE - 2.7 ESE Greenleaf	1
24		4	10	2011	1953-1955	1.2 NNE - 1.4 S Greenleaf	1
25		8	6	2013	2338-2353	0.4 SE Mackville - 2.7 W Morrison	1
26		8	6	2013	2338-2352	3.5 E Greenville - 2.6 NNE Brillion	1
27		8	6	2013	2340-0010	2.7 ENE Mackville - 1.1 NNE Larabee	0
28		8	6	2013	0005-0010	0.5 SSE Henrysville - 1 NE Stangelville	1
29		6	15	2015	1409-1410	1.5 – 1.4 NNW Glenmore	0

Brown County Severe Weather Facts (1950-2015)

F/EF-2 or Greater Tornadoes in Brown County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
2		5	10	1959	2050	Green Bay	2
7		5	8	1964	1830-1906	Winneconne-Wrightstown	2
9		8	16	1968	2120	4 S Pulaski	2
10		6	26	1969	1115-1130	Black Creek - 2 NE Pulaski	2
11		4	22	1970	2040	Ashwaubenon to Green Bay - north side	2
12		4	22	1970	2100	De Pere to Green Bay	2

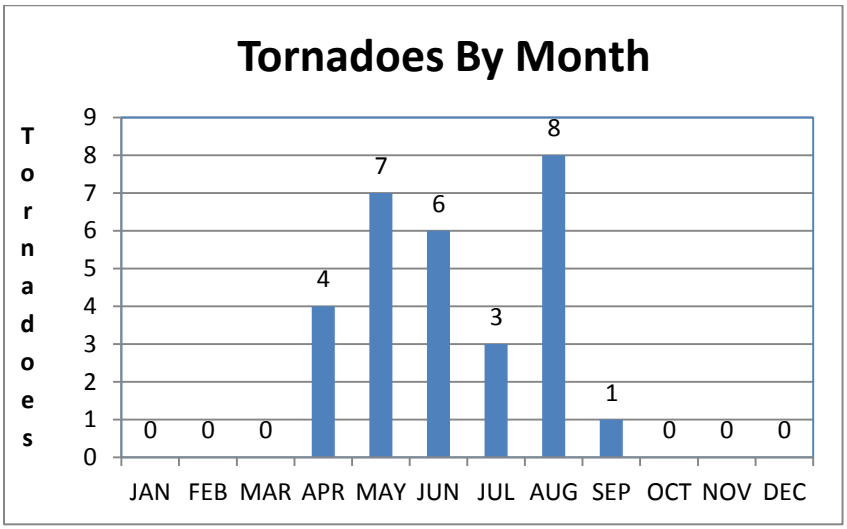
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**



Brown County Severe Weather Facts (1950-2015)

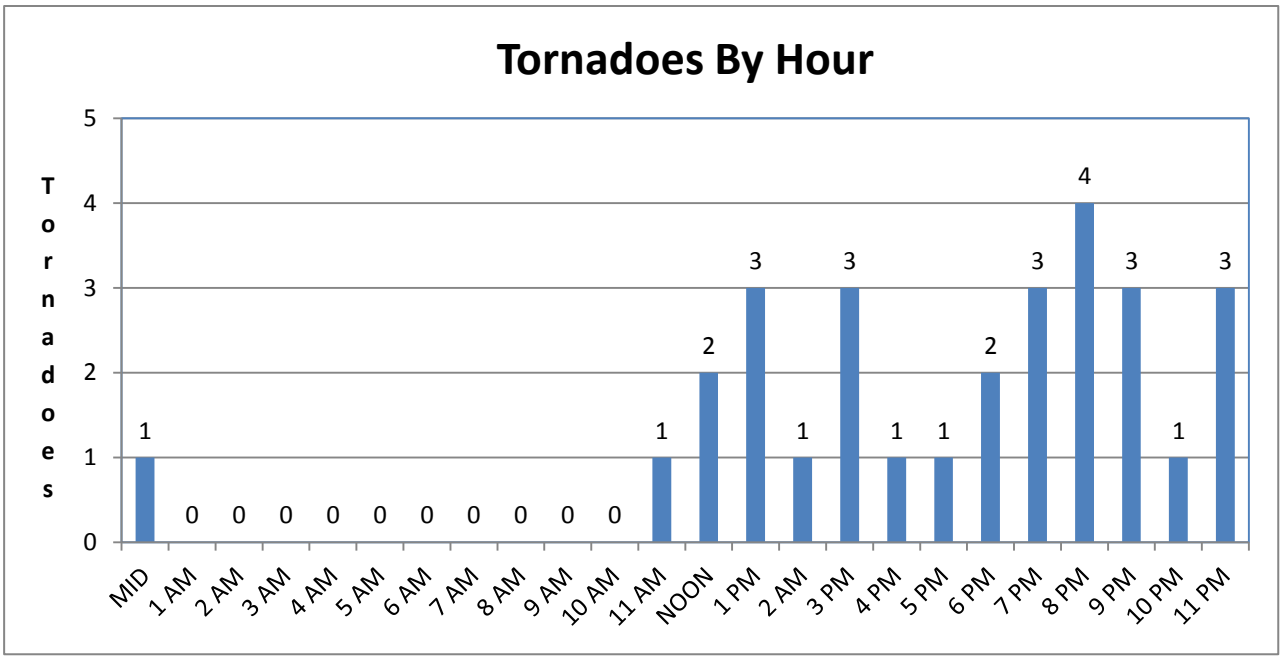
Tornadoes by Month

Tornadoes have occurred in Brown County from April to September. The earliest documented tornado during the year occurred on April 22, 1970. On this day, three tornadoes were documented across the county. Two tornadoes were documented in Green Bay, Ashwaubenon and De Pere. The third tornado occurred two miles northeast of Poland. The tornado usually season peaks in May and June, but a large tornado outbreak (August 6-7, 2013) with four tornadoes now makes August the peak month with 8 tornadoes. The warm months of May through August account for 83 percent of all documented tornadoes during the year. The last documented tornado to hit the county occurred on August 7, 2015 when a tornado (EF-1) traveled from a half mile south southeast of Henrysville to one mile northeast of Stangelville.



Tornadoes by Hour

In Brown County, eighteen of the twenty-four (67%) documented tornadoes have occurred between 3 pm and 11 pm local standard time. There have been no documented tornadoes between the 1 am to 11 am local standard time.



Brown County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March and October, hail is the dominant weather event that is reported to the National Weather Service. The atmosphere is cold aloft during March and October which supports large hail. For the year, nearly six out of ten reports are high winds or wind damage.

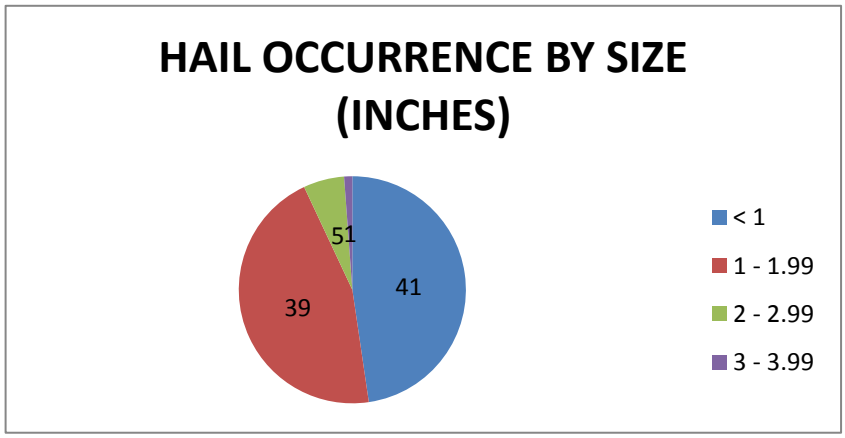
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0	100	Jul	43.4	56.6
Feb	0	0	Aug	33.3	66.7
Mar	100	0	Sep	32.0	68.0
Apr	36.4	63.6	Oct	75.0	25.0
May	50.0	50.0	Nov	0.0	0.0
Jun	40.8	59.2	Dec	0.0	0.0
			Year	40.8	59.2

Large Hail in Brown County

There have only been six documented reports of hail over two inches in diameter in the county. The largest hail stone 3.0 inches in diameter occurred five miles east of Green Bay on July 1, 1956 The most recent hail stone over two inches occurred on July 30, 2012 when 2.5 inch hail was reported 0.9 miles southeast of Cormier (just west of Green Bay). Strong to severe thunderstorms brought one inch to tennis ball size hail from Suamico to Green Bay to Bellevue. Several homes and cars on the west side of Green Bay sustained damage from the large hail. Overall, hail ranging in size from three quarters to one inch accounted for seventy percent of the large hail reports. Large hail reports of two inches or greater accounted for only seven percent of all reports.

Hail over 2 inches

Hail (inches)	Date	Time (LST)	Location
3.00	07/01/1956	1100	5 E Green Bay
2.75	03/29/1998	1240	3 E Wrightstown
2.75	03/29/1998	1245	Greenleaf
2.38	05/28/1991	1415	Green Bay
2.25	08/28/2003	1735	Suamico
2.50	07/30/2012	1654-1657	0.9 SE Cormier



Brown County Severe Weather Facts (1950-2015)

Brown County Summary

In Brown County, the severe weather season begins in earnest in April and wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 3 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or late fall. Wind is the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Brown County ranks 7th in the total number of storm reports and 3rd in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which covers 22 counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Brown County Severe Weather Facts (1950-2015)

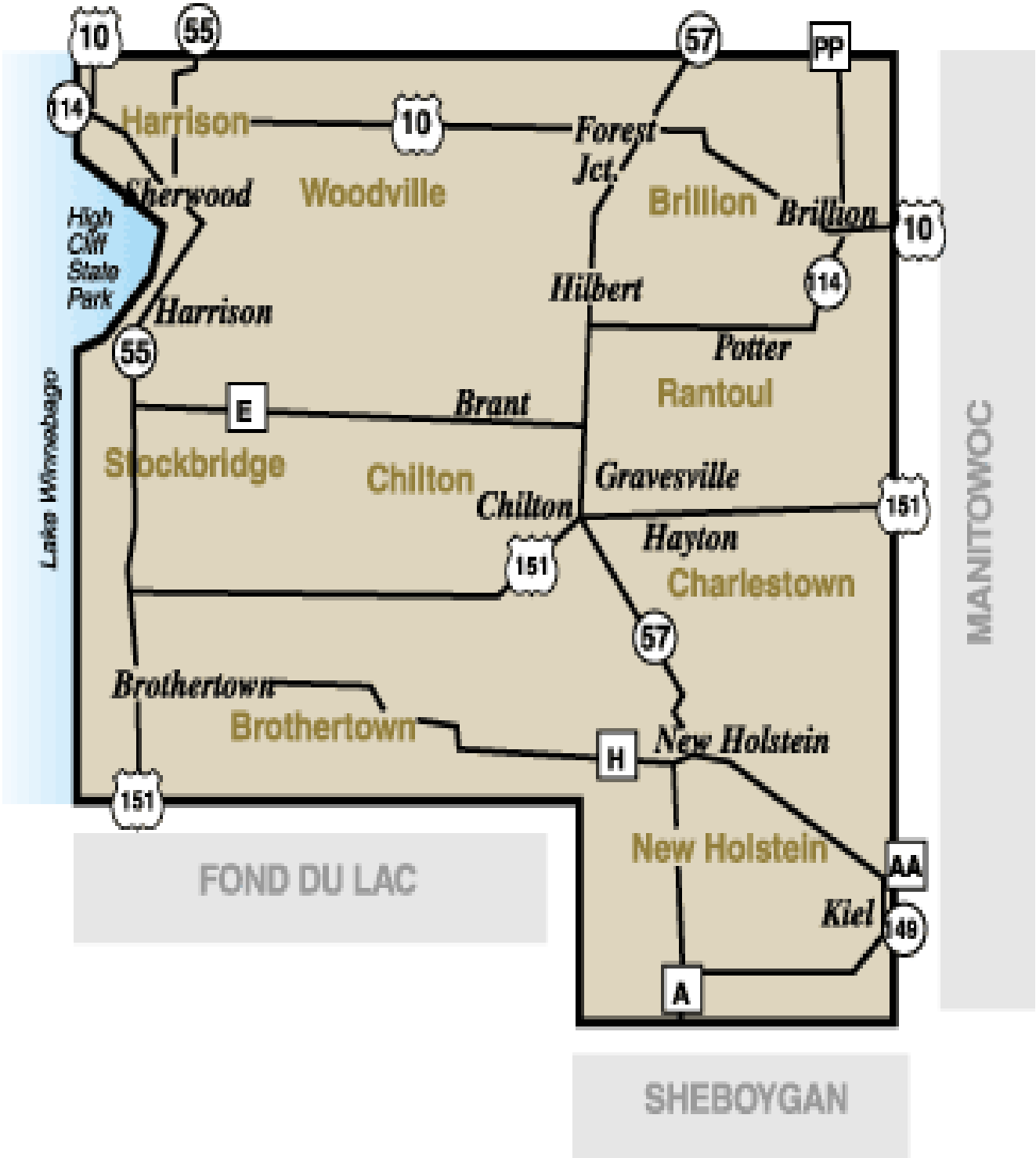
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

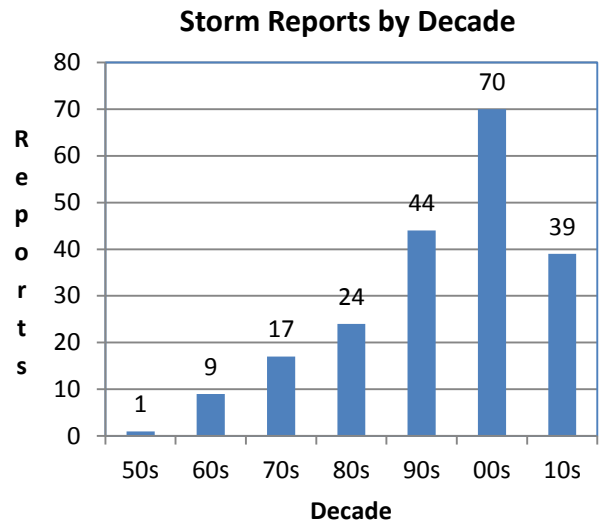
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Calumet County Severe Weather Facts (1950-2015)

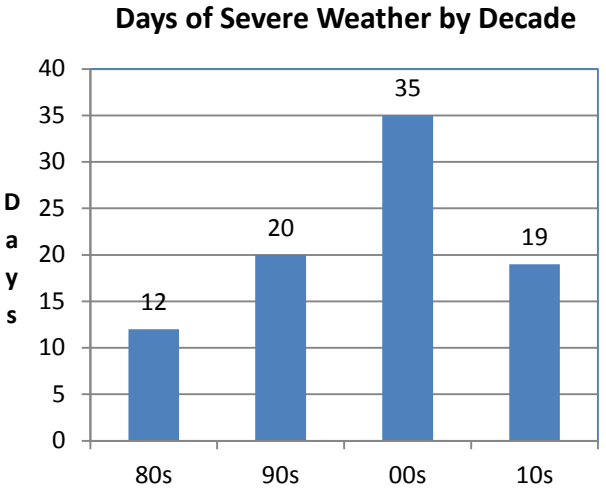


Calumet County Severe Weather Facts (1950-2015)



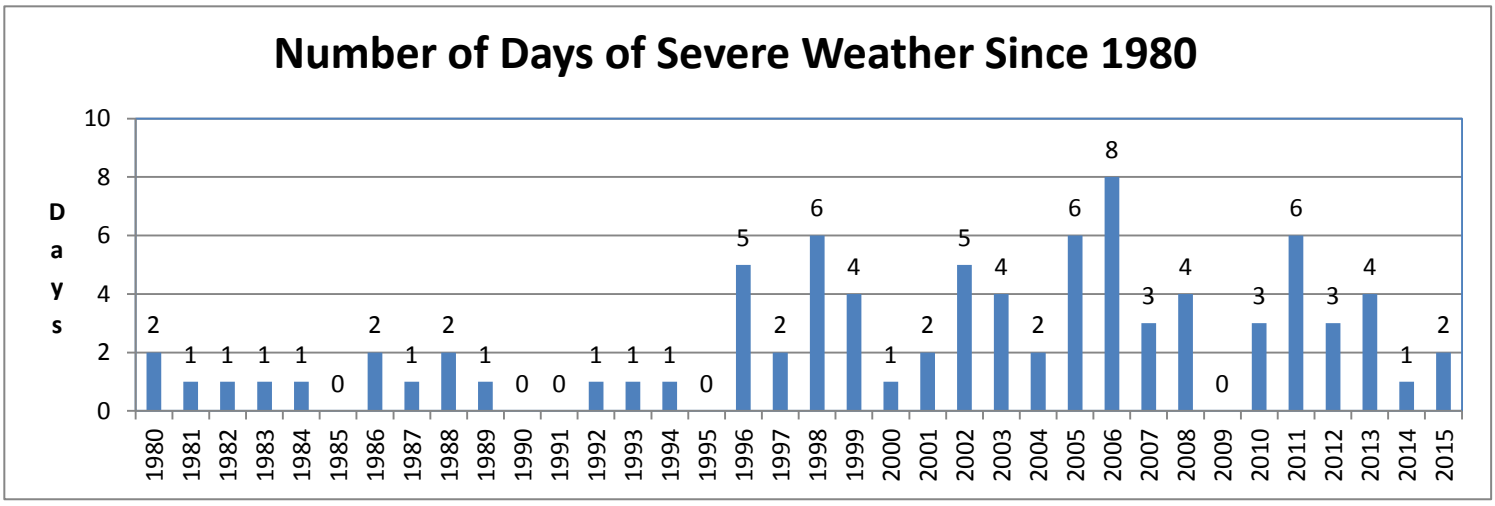
Storm Reports by Decade

Since 1950 there have been 207 documented reports of large hail, damaging winds and tornadoes across Calumet County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 192 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification. In 2015, only three reports of damaging winds were noted across the county (July 18th and August 14th).



Days of Severe Weather by Decade

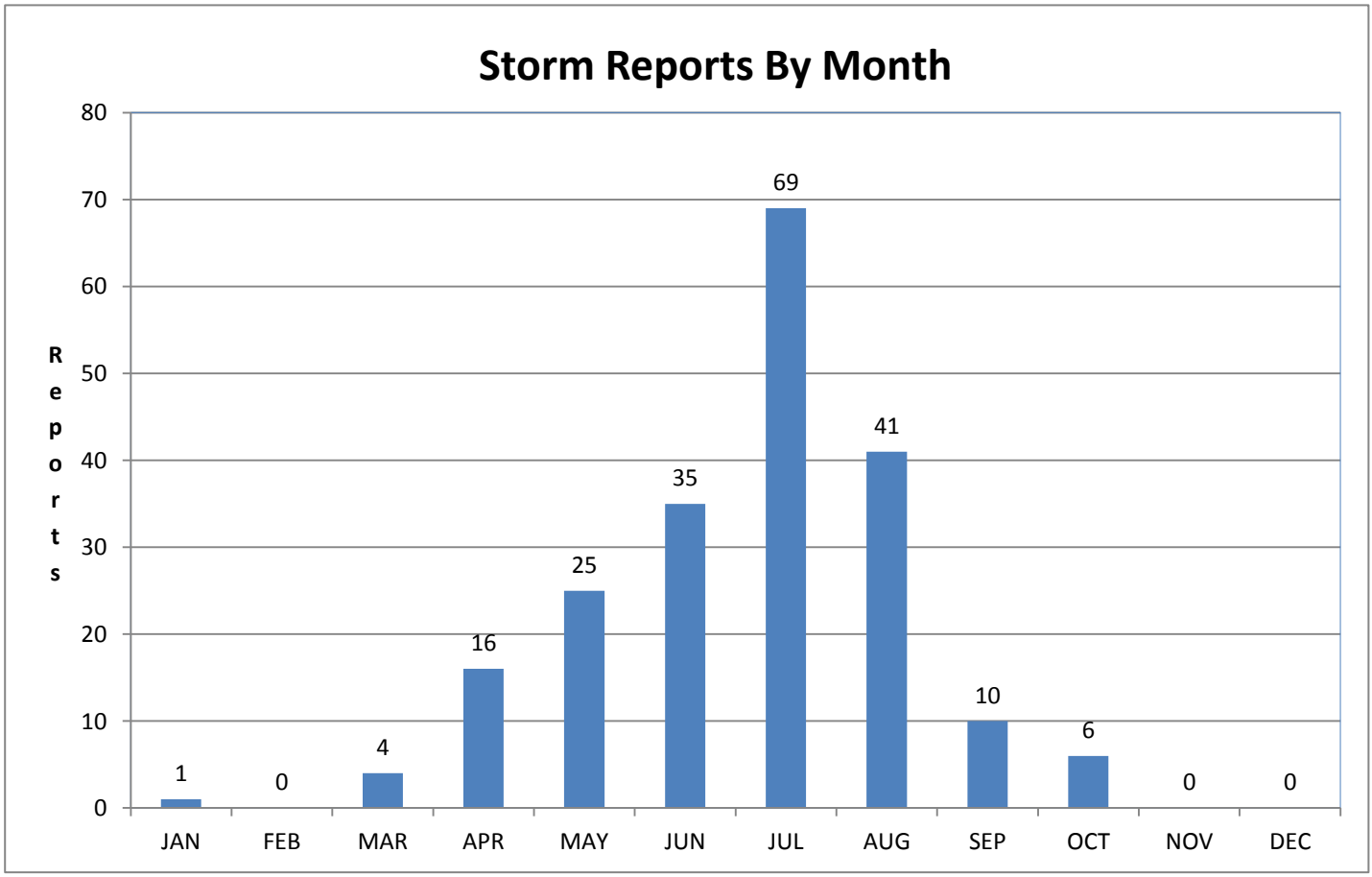
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 192 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather and greater severe weather awareness by the public. Since 2010, Calumet County on average experiences 3.2 days of severe weather in a given year. The long term average from 1980 to 2015 is 2.4 days. The most active year was 2006 with 8 days of severe weather; followed by six days in 1998, 2005 and 2011.



Calumet County Severe Weather Facts (1950-2015)

Storm Reports by Month

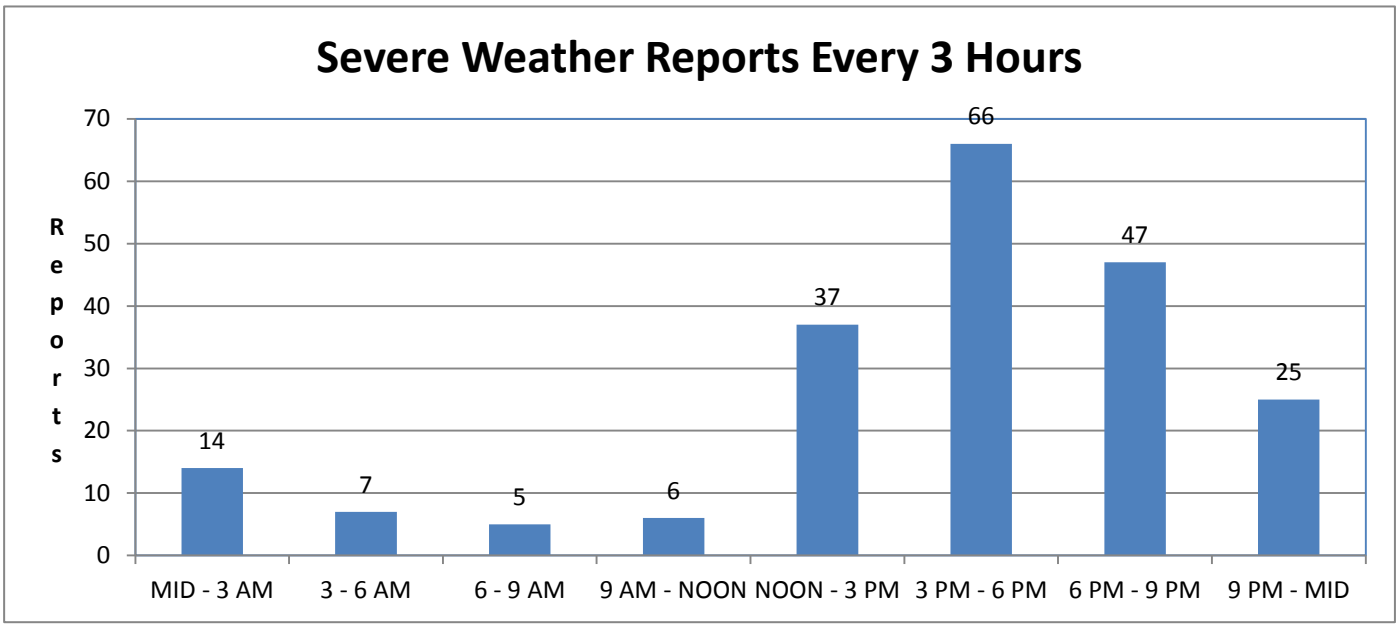
Severe weather has been reported in Calumet County in every month except February, November and December. Surprisingly, there has been one report of severe weather during the month of January. On January 24, 1967, a line of thunderstorms produced damaging winds across Brown, Calumet, Winnebago and Outagamie counties during the early evening hours. On a few occasions, severe weather breaks out during the month of March. The severe weather season begins in earnest in April, with the heart of the convective season between May and August. July is the peak month for the number of reports followed by June and August. The warm season period of May through September accounts for eighty-seven percent of all severe weather reports during the year. Severe weather can occur from time to time in September. Isolated reports of severe weather have been noted during October. The latest report of severe weather during the year occurred on October 27, 1984 when wind damage was reported in New Holstein.

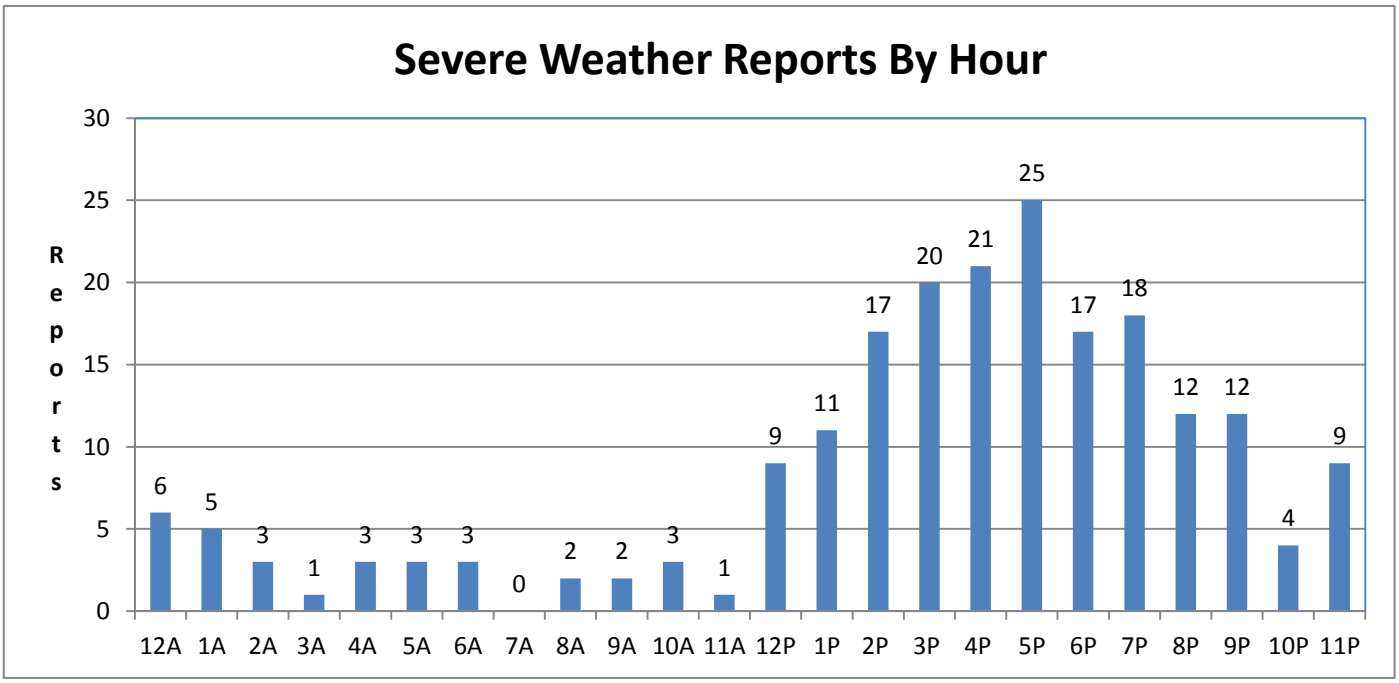


Calumet County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Calumet County. Sixty-eight percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Calumet County, severe weather reports increased after noon with a peak between 5 pm and 6 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May through early September, there is another peak of severe weather that occurs between midnight and 5 am. In these events, thunderstorms that fire up across the Dakotas and Minnesota and moves into the county overnight. However, on September 2, 2011 northeast Wisconsin experienced one of the biggest and strongest morning severe weather outbreaks in years when severe thunderstorms developed across east central and northeast Wisconsin and moved northeast into Brown County. Numerous reports of severe weather were reported across Winnebago, Waushara, Outagamie and Brown Counties. Hurricane force winds were reported near High Cliff State Park around 8:40 am and near Wrightstown in Brown County around 8:45 am.

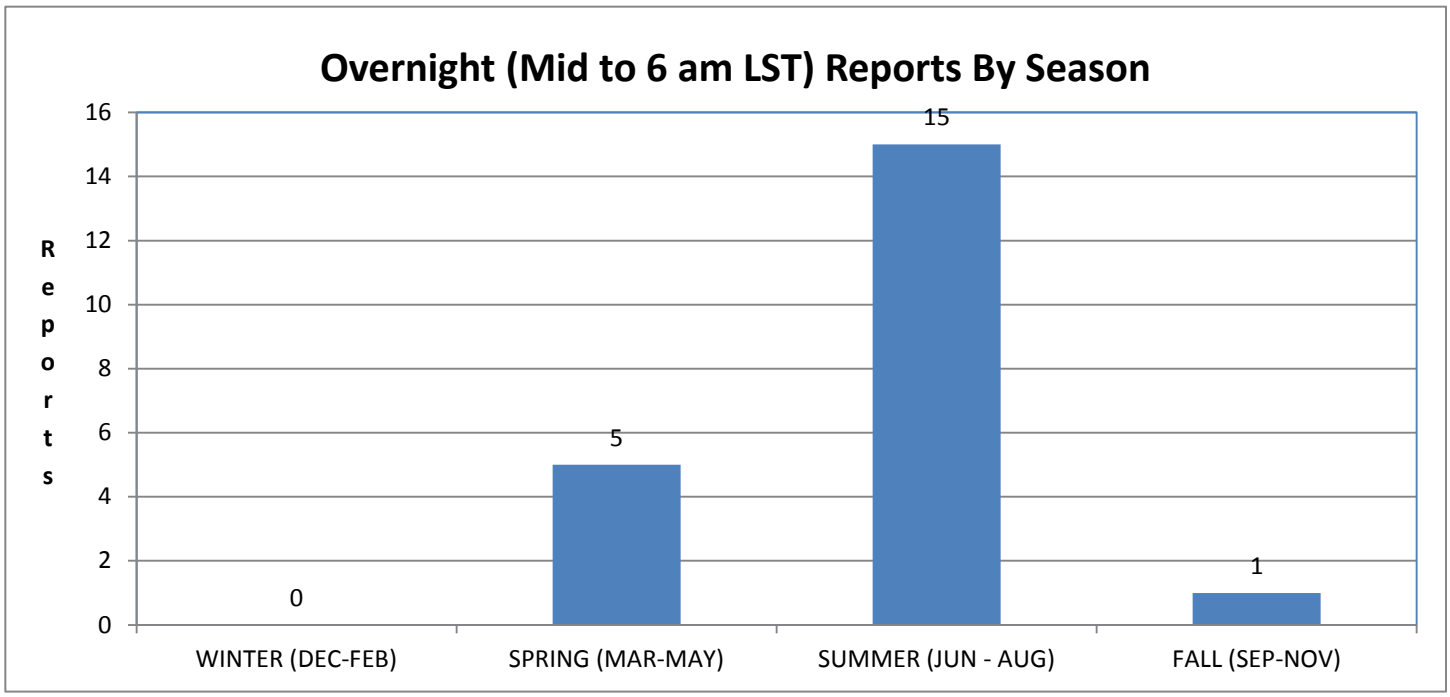




Calumet County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for seventy-one percent of all overnight reports during the year.



Calumet County Severe Weather Facts (1950-2015)

Calumet County Tornadoes

Since record keeping began in 1950, there have been twenty-five documented tornadoes in Calumet County. Of the twenty-five tornadoes, there have been zero documented tornadoes of F/EF-3 or greater intensity. Six of the tornadoes have been rated F/EF-2 intensity (see table on next page). The remaining nine-teen tornadoes were rated F/EF-0 or F/EF-1. The last F/EF-2 tornado to strike Calumet County occurred four miles west of Kiel on April 4, 1981. The most tornadoes in a year occurred in 1996 with four. Two tornadoes were reported in 1967, 2003, 2005, 2011 and 2013. The last tornado to strike Calumet County occurred on August 7, 2013 when an F/EF-1 tornado touched down from a half mile south southeast of Henrysville to one mile northeast of Stangelville. Since 1950, tornadoes have touched down in seventeen different years. A tornado strike in Calumet County occurs on average every two and a half years.

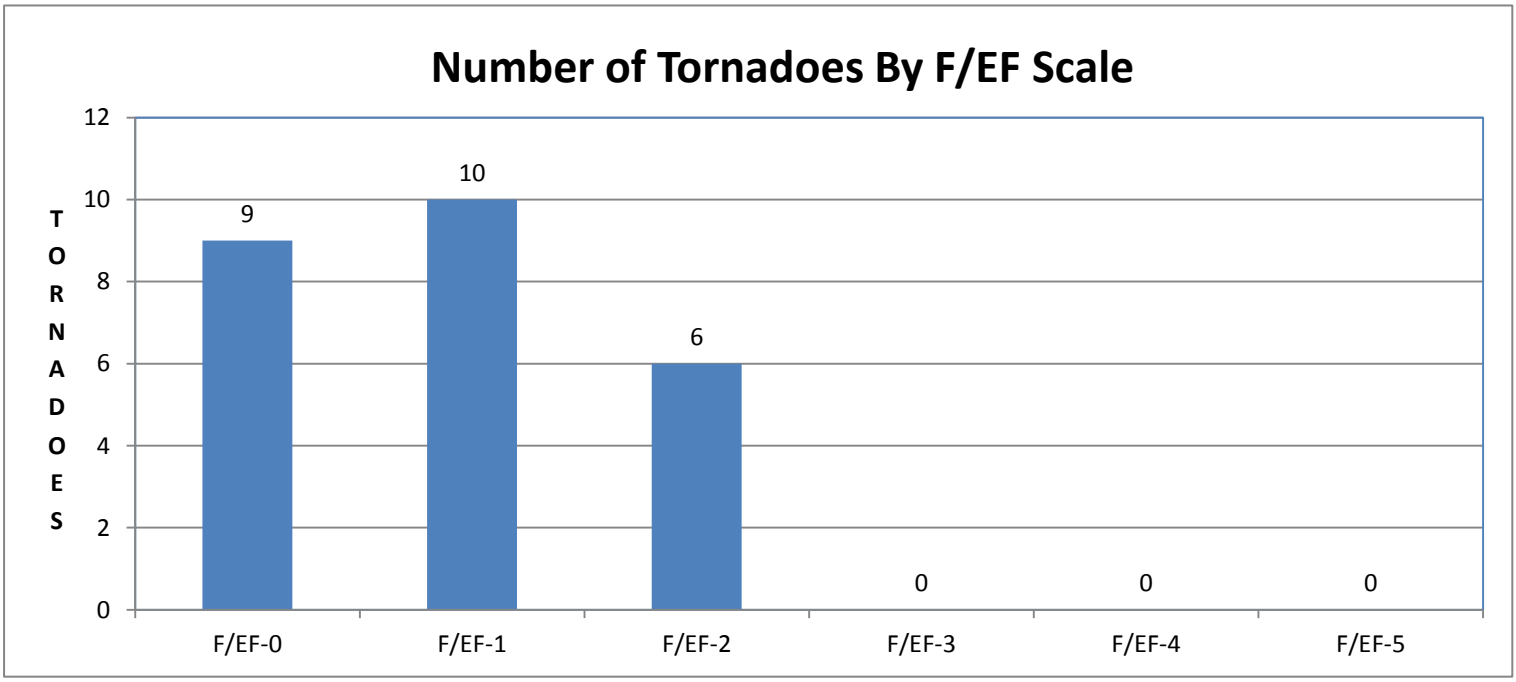
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	20	1954	0400	Brothertown	2
2		5	8	1964	1830-1906	Winneconne-Wrightstown	2
3		7	8	1965	1700	Lake Winnebago - 1 N Sherwood	2
4		6	30	1967	2349-2359	Chilton - 7 E Chilton	2
5		7	2	1967	1400	Brillion	1
6		4	21	1971	1730	4 SW Hilbert	0
7		3	11	1973	1030	2 E Calumetville	1
8		8	9	1979	1820	Rockland Beach	2
9		4	4	1981	0035	4 W Kiel	2
10		7	19	1983	1925	Stockbridge Harbor	1
11		5	24	1989	2105	4 WNW Chilton	1
12		6	11	1996	1608-1609	5 NW Chilton	0
13		7	18	1996	1805-1807	1.1 S - 1.6 SE Jericho	1
14		7	18	1996	1810	5.9 S Chilton	0
15		7	18	1996	1815-1816	2.2 WNW - 1.8 W St Anna	0
16		5	31	1998	0120-0124	0.5 N Stockbridge - 2 NE Stockbridge	1
17		6	8	2003	1242-1246	4.3 W - 4.1 WSW Brothertown	0
18		8	3	2003	1359-1403	0.3 W - 0.2 ENE Potter	1
19		5	6	2005	1525-1529	5 WSW - 3.7 SW Brothertown	0
20		6	9	2005	1814	4 NW Stockbridge	0
21		6	24	2006	1614-1615	4 W Sherwood	0
22		4	10	2011	1959-2001	1.6 NW Quinney – 1.5 SSE Stockbridge	1
23		8	23	2011	2005-2006	0.8 ENE – 1.3 E Sherwood	0
24		8	6	2013	2338-2352	3.5 E Greenville – 2.6 NNE Brillion	1
25		8	7	2013	0005-0010	0.5 SSE Henrysville – 1 NE Stangelville	1

Calumet County Severe Weather Facts (1950-2015)

F/EF-2 or Greater Tornadoes in Calumet County

Event		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	20	1954	0400	Brothertown	2
2		5	8	1964	1830-1906	Winneconne-Wrightstown	2
3		7	8	1965	1700	Lake Winnebago - 1 N Sherwood	2
4		6	30	1967	2349-2359	Chilton - 7 E Chilton	2
5		8	9	1979	1820	Rockland Beach	2
6		4	4	1981	0035	4 W Kiel	2

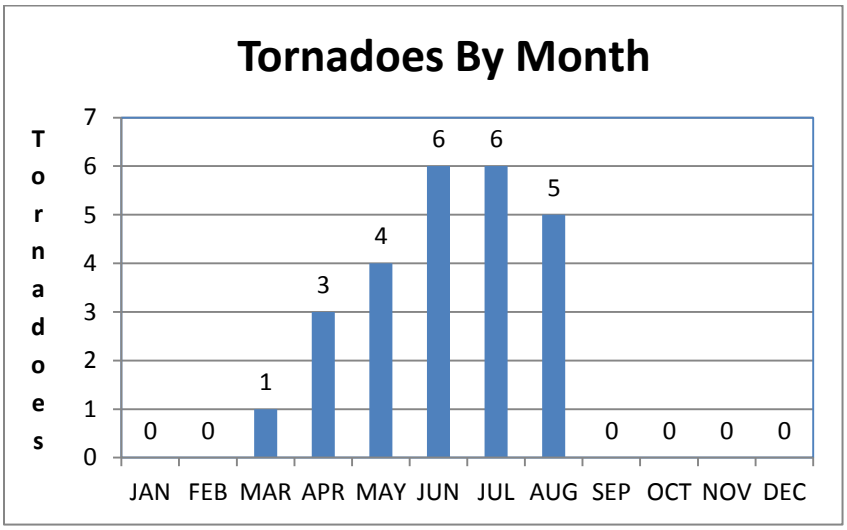
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**



Calumet County Severe Weather Facts (1950-2015)

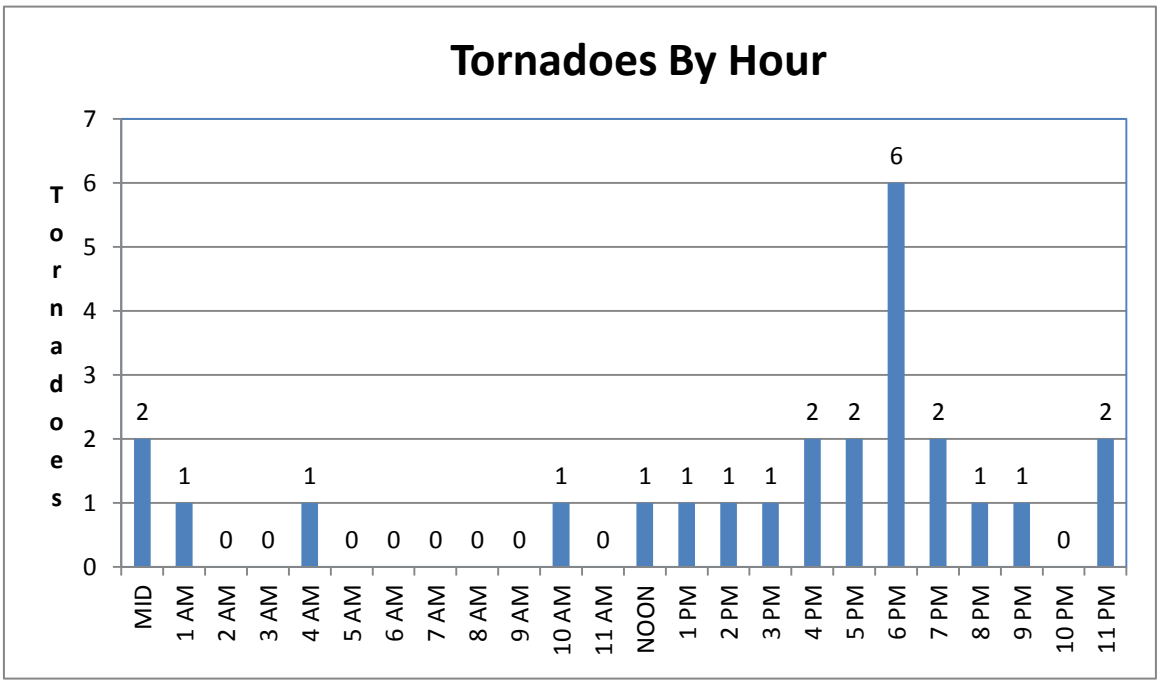
Tornadoes by Month

Documented tornadoes have occurred in Calumet County from March through August. The earliest documented tornado during the year occurred on March 11, 1973 when an F/EF-1 tornado touched down two miles east of Calumetville. The tornado season peaks in June through August which accounts for sixty-eight percent of all tornadoes during the year. The latest documented tornado on record during the year occurred on August 23, 2011 when an F/EF-0 tornado touched just east of Sherwood.



Tornadoes by Hour

In Calumet County, sixteen of the twenty-five (64%) documented tornadoes have occurred between 2 pm and 10 pm local standard time. There have been no documented tornadoes between 2 am and 4 am, and from 5 am and 10 am local standard time.

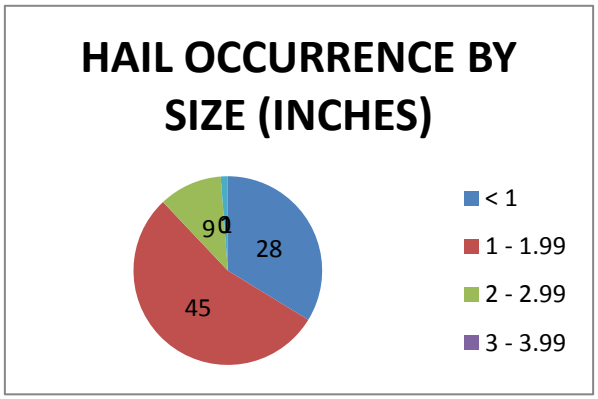


Calumet County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March and October, large hail is the dominant weather event that is reported to the National Weather Service. Typically during these months, the atmosphere is colder aloft to support large hail reaching the ground. For the remainder of the convective season, reports of high winds or wind damage are nearly as slightly more likely to be reported to the National Weather compared to large hail. Only June and September have a strong bias for strong winds or wind damage being reported across the county.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	100	Jul	52.4	47.6
Feb	0.0	0.0	Aug	38.9	61.1
Mar	100	0.0	Sep	0.0	100..0
Apr	38.5	61.5	Oct	83.3	16.7
May	52.4	47.6	Nov	0.0	0.0
Jun	37.9	62.1	Dec	0.0	0.0
			Year	45.1	54.9



Large Hail in Calumet County

There have only been ten documented reports of large hail over two inches in diameter across the county. The largest hail stone 4.0 inches in diameter occurred at St. John on March 29, 1998. The most recent large hail event over two inches occurred on July 16, 2008 when hail the size of two and a half inches was reported a half mile east of Chilton. Overall, hail ranging in size from three quarters to one inch accounted for 55 percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for twelve percent of the total hail reports.

Hail over 2 inches

Hail (inches)	Date	Time (LST)	Location
2.00	06/08/1973	1715	2 SW Chilton
2.75	07/05/1994	0900	Chilton
4.00	03/29/1998	1225	St. John
2.00	08/14/1998	1600	3 SSW Sherwood
2.00	08/23/1998	1600	Sherwood
2.00	05/12/2000	1028	Stockbridge to Hayton
2.00	07/01/2006	1920	Potter
2.00	07/16/2008	1308	High Cliff Junction
2.00	07/16/2008	1310	0.5 E High Cliff
2.50	07/16/2008	1353	0.5 E Chilton

Calumet County Severe Weather Facts (1950-2015)

Calumet County Summary

In Calumet County, the severe weather season begins in earnest in April and wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or late fall. Damaging wind or large hail will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Calumet County ranks 10th in the total number of storm reports and 4th in the number of tornado reports since 1950.

One of the most severe storms to hit Calumet County (picture to the left of home damaged in Chilton) occurred during the late morning of May 12, 2000 when a single "high-precipitation" supercell thunderstorm developed in west-central Wisconsin, and moved east across the central and east central Wisconsin. Hail up to the size of baseballs, driven by winds in excess of 60 mph, produced **incredible damage** in Waushara, Winnebago, Calumet, and Manitowoc counties. Chilton and St. Nazianz were particularly hard-hit by very large hail and hurricane force wind gusts well over 75 mph. Total damage from the storm in Wisconsin was nearly $122 million, much of that in the NWS Green Bay forecast area.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Calumet County Severe Weather Facts (1950-2015)

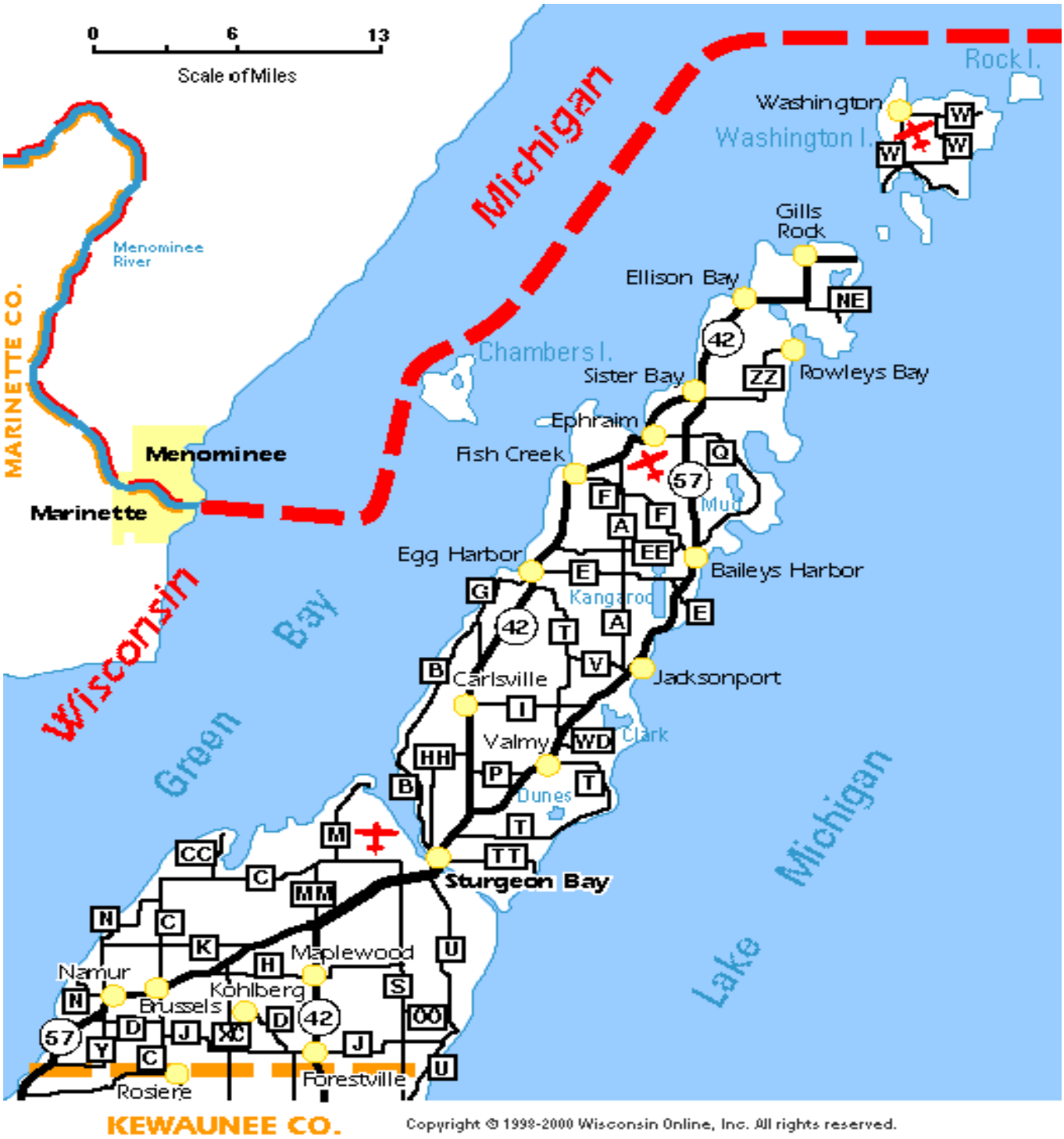
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Door County Severe Weather Facts (1950-2015)



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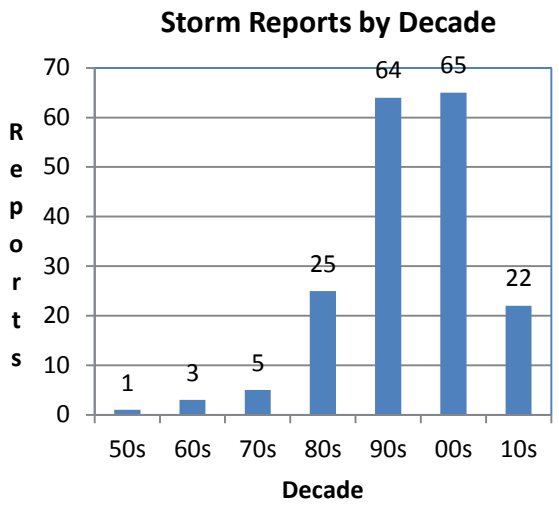
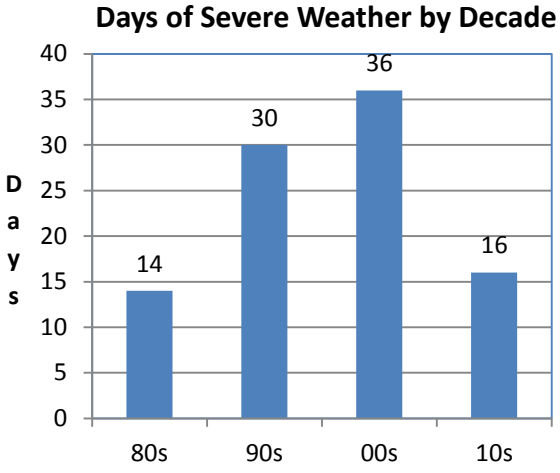
Door County Severe Weather Facts (1950-2015)



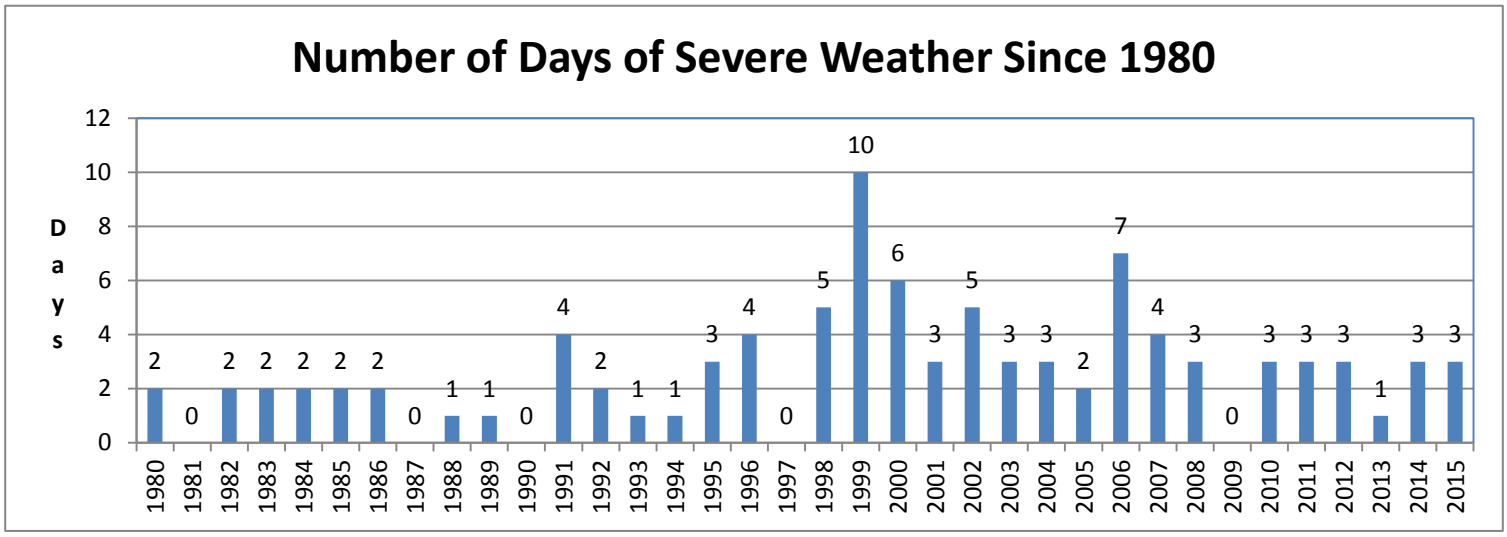
Storm Reports by Decade

Since 1950 there have been 185 documented reports of large hail, damaging winds and tornadoes across Door County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 160 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

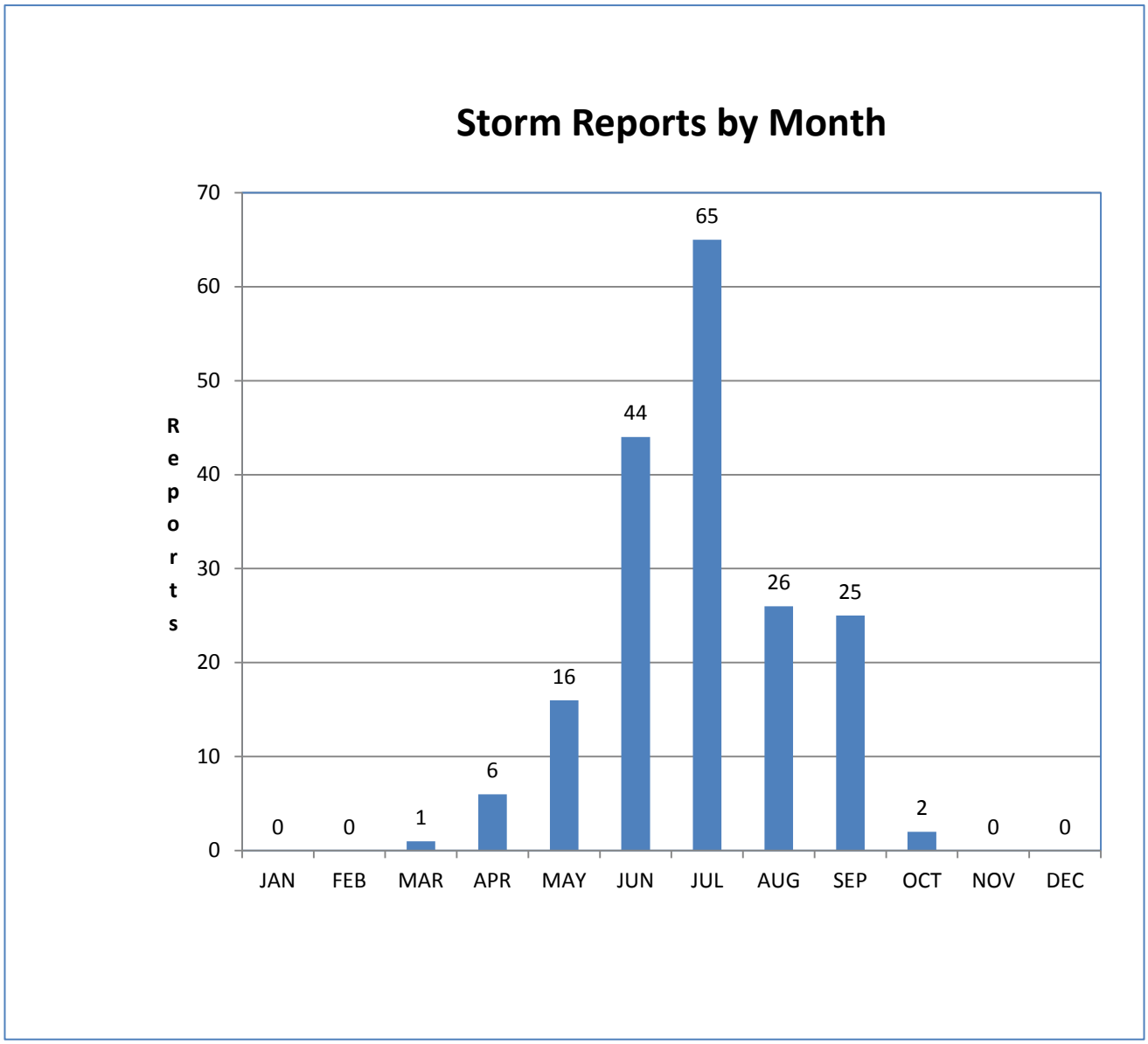
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 157 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather and greater severe weather awareness by the public. Since 2010, Door County averages 2.7 days of severe weather in a given year. The long term average from 1980 to 2015 is 2.7 days. The most active year was 1999 with ten days of severe weather; followed by seven days in 2006 and six days in 2000.



Door County Severe Weather Facts (1950-2015)

Storm Reports by Month

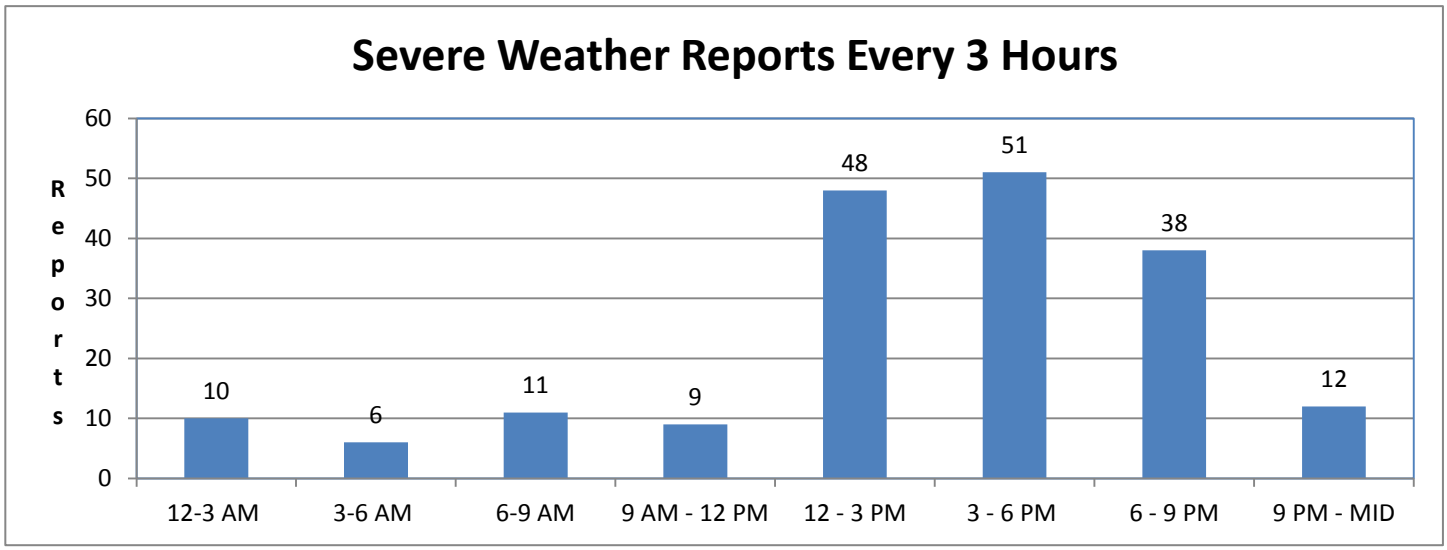
Severe weather has been reported across Door County from March through October. The earliest documented report of large hail or damaging winds during the year occurred on March 29, 1998 when large hail three quarters of an inch was reported at Baileys Harbor. The severe weather season begins in earnest in May, although the stabilizing effects of the colder waters of the Bay of Green Bay and Lake Michigan can weaken severe storms during some events in the spring. Although the colder waters can weaken storms, it should be noted that a tornado outbreak occurred on April 22, 1970 when two F/EF-2 tornadoes touched down across southern Door County. The severe weather season then peaks in July. June and July account for fifty-nine percent of all severe weather reports during the year. Ninety-five percent of all storm reports occurred during the warm season months from May through September. Isolated reports of severe weather were noted in October. The latest report of severe weather during the year occurred on October 17, 1984 when wind damage was reported in Sturgeon Bay.

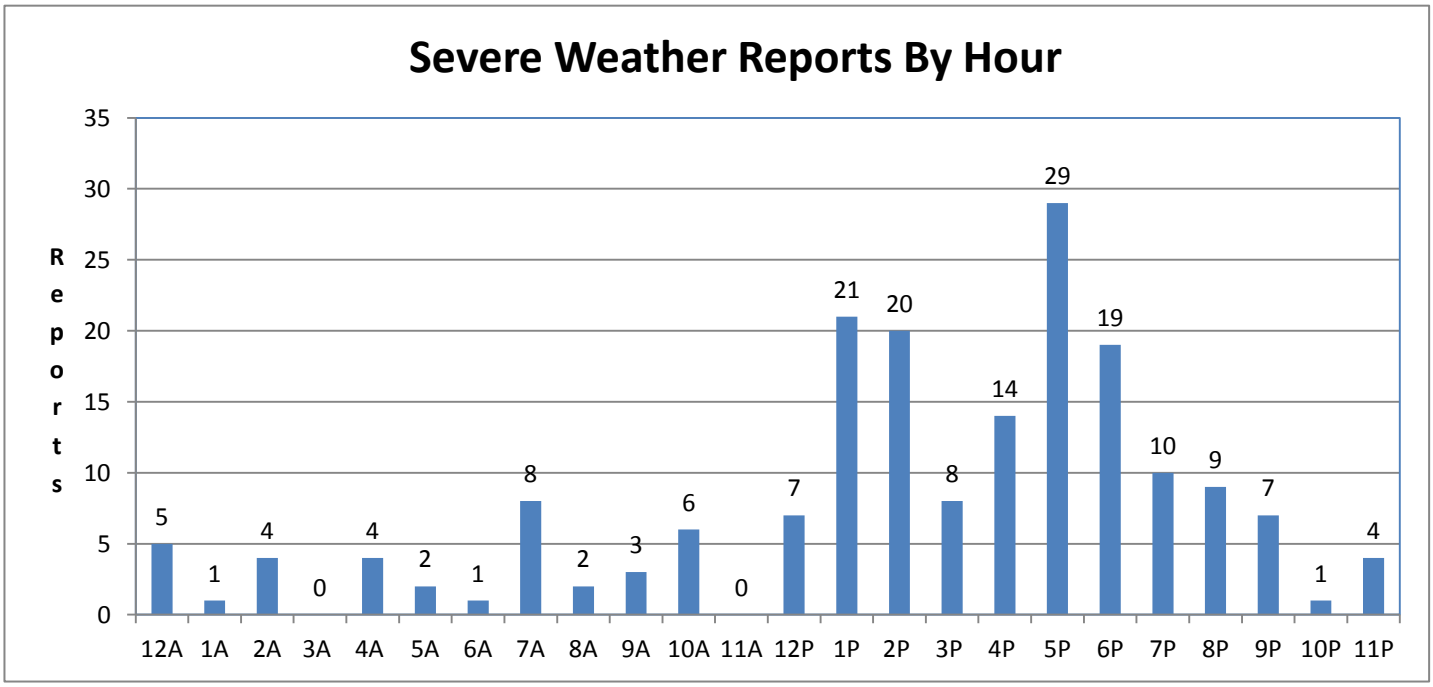


Door County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Door County. Seventy percent of all severe weather reports occur between 1 pm and 9 pm local standard time. Severe weather reports rapidly increased at 1 pm local standard time. In Door County, there were two separate peaks with the first one between 1 pm and 3 pm local standard time while the second peak occurred between 5 pm and 6 pm. The two different peaks in activity correspond to peak afternoon heating when the atmosphere is most unstable and timing of cold fronts moving through northeast Wisconsin. Scattered reports are noted during the evening and overnight hours during the summer months of June, July, and August. Between September and May, it is very rare to get severe weather between 9 pm and 9 am. There have been only seven reports which account for only four percent of the total reports across the county since 1950.

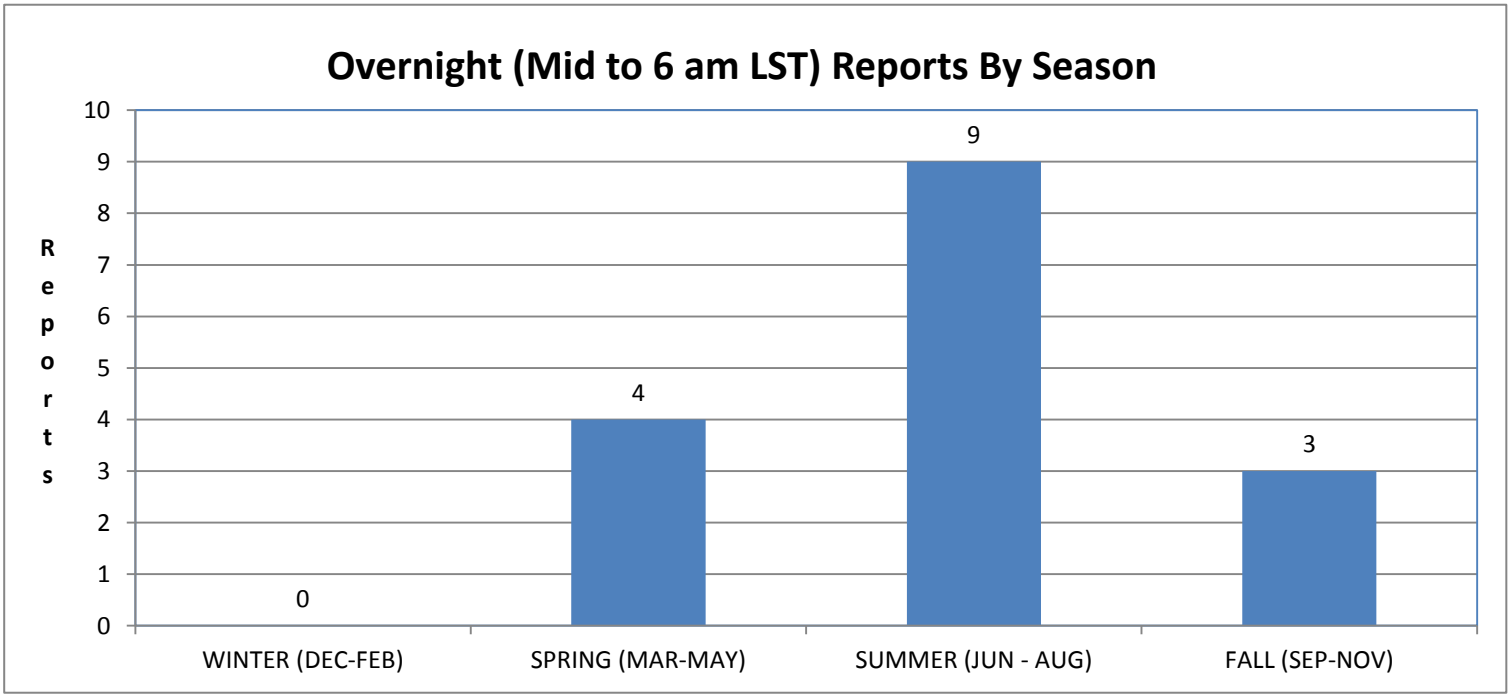




Door County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for fifty-six percent of all overnight reports during the year.



Door County Severe Weather Facts (1950-2015)

Door County Tornadoes and Waterspouts

Since record keeping began in 1950; there have been 19 documented tornadoes and waterspouts in Door County. It should be noted that waterspouts are usually under reported across the region since they may be well offshore and strike the opens waters where they are not seen. One tornado has been rated F/EF-3 or greater intensity while four other tornadoes were rated F/EF-2. The tornado that began as a large waterspout three miles southwest of Egg Harbor and then moved onshore to five miles southeast of Egg Harbor on August 23, 1998. Four-teen documented tornadoes and waterspouts were rated F/EF-0 or F/EF-1. The most documented tornadoes and waterspouts in a single year is 3 in 1999; followed by two in 1970, 1991, 2000 and 2006. Tornadoes were reported in three consecutive years from 1998 to 2000. Tornadoes have struck Door County in thirteen different years since 1950. Of those nine years, two of those years had more than one tornado in a given year. A tornado or waterspout strikes Door County occurs on average every three and a half years. In 2012, a waterspout was reported three miles west of Sister Bay.

Picture by Mel Pfister – F/EF-3 tornado near Egg Harbor 8/23/98

Door County Severe Weather Facts (1950-2015)

Door County Tornadoes and Waterspouts

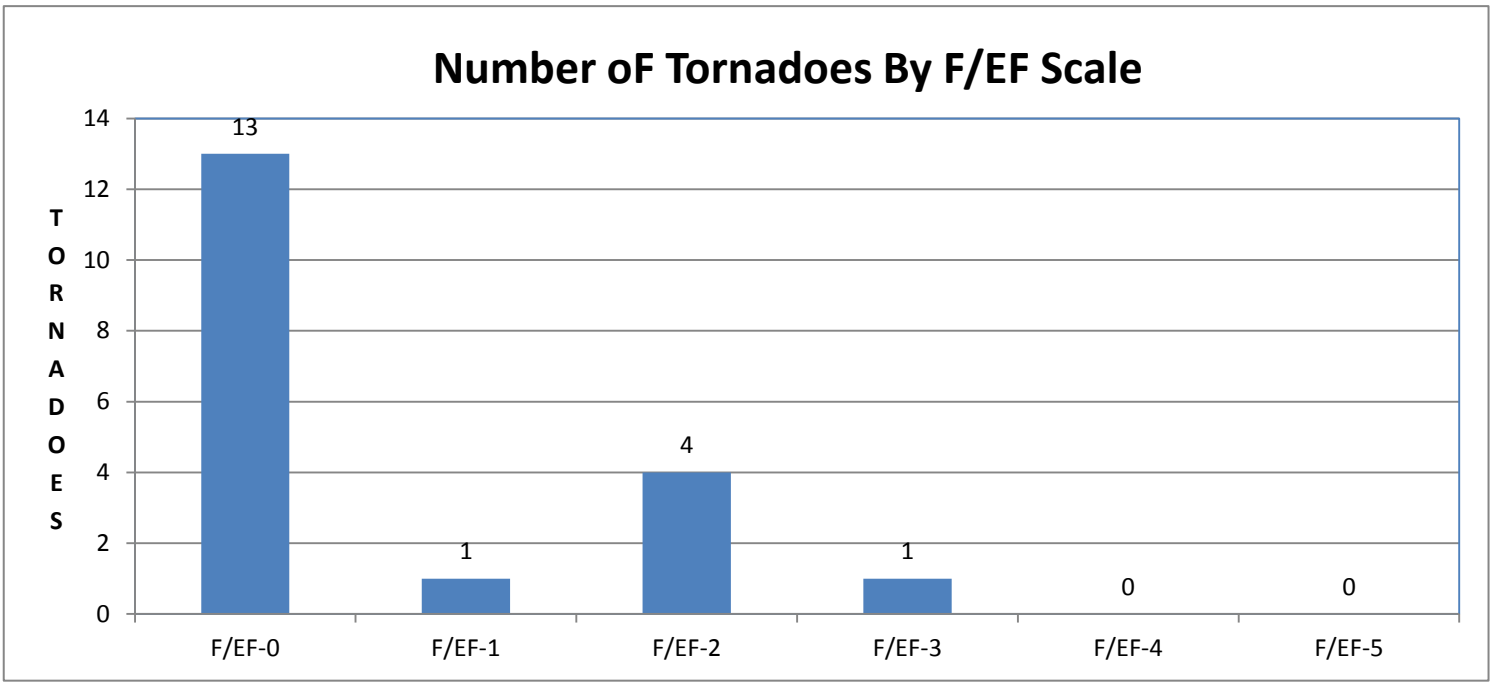
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		7	1	1956	1205	5 E of Maplewood to 4 SE Institute	2
2		7	25	1966	1820	0.5 E Maplewood	0
3		4	22	1970	2100-2110	1 N Casco - Rio Creek	2
4		4	22	1970	2120-2130	7 SE Maplewood	2
5		7	12	1973	0730	Jacksonport	1
6		6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	2
7		7	28	1991	1015	Near Rock Island (waterspout)	0
8		7	28	1991	1015	Near Washington Island (waterspout)	0
9		8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	3
10		8	4	1999	1605-1615	21 ESE Sturgeon Bay (waterspout)	0
11		9	9	1999	1455	3 N Sister Bay	0
12		9	19	1999	1646-1710	8 SE Sturgeon Bay	0
13		7	13	2000	1455	1.5 NE Forestville	0
14		7	20	2000	1258	2 W Sister Bay (waterspout)	0
15		4	23	2001	1326-1346	12 NW - 9 NW Sturgeon Bay (waterspout)	0
16		6	18	2006	1643	3 NW Sister Bay	0
17		9	29	2006	0920-0955	Chambers Is. - 12 SE Cedar River (waterspout)	0
18		6	20	2007	1606	6 NW Ellison Bay (waterspout)	0
19		9	18	2012	1701	3 W Sister Bay	0

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

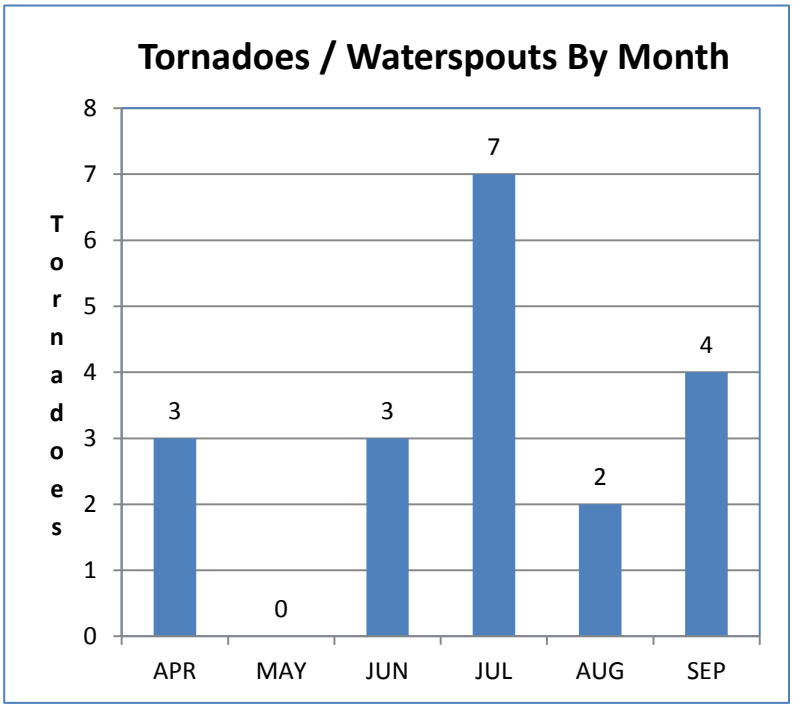
F/EF-2 or Greater Tornadoes in Door County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		7	1	1956	1205	5 E of Maplewood to 4 SE Institute	2
3		4	22	1970	2100-2110	1 N Casco - Rio Creek	2
4		4	22	1970	2120-2130	7 SE Maplewood	2
6		6	8	1985	2000-2030	Sand Bay - Sturgeon Bay	2
7		8	23	1998	1730-1744	3 SW Egg Harbor - 5 SE Egg Harbor	3

Door County Severe Weather Facts (1950-2015)



Tornadoes and Waterspouts by Month

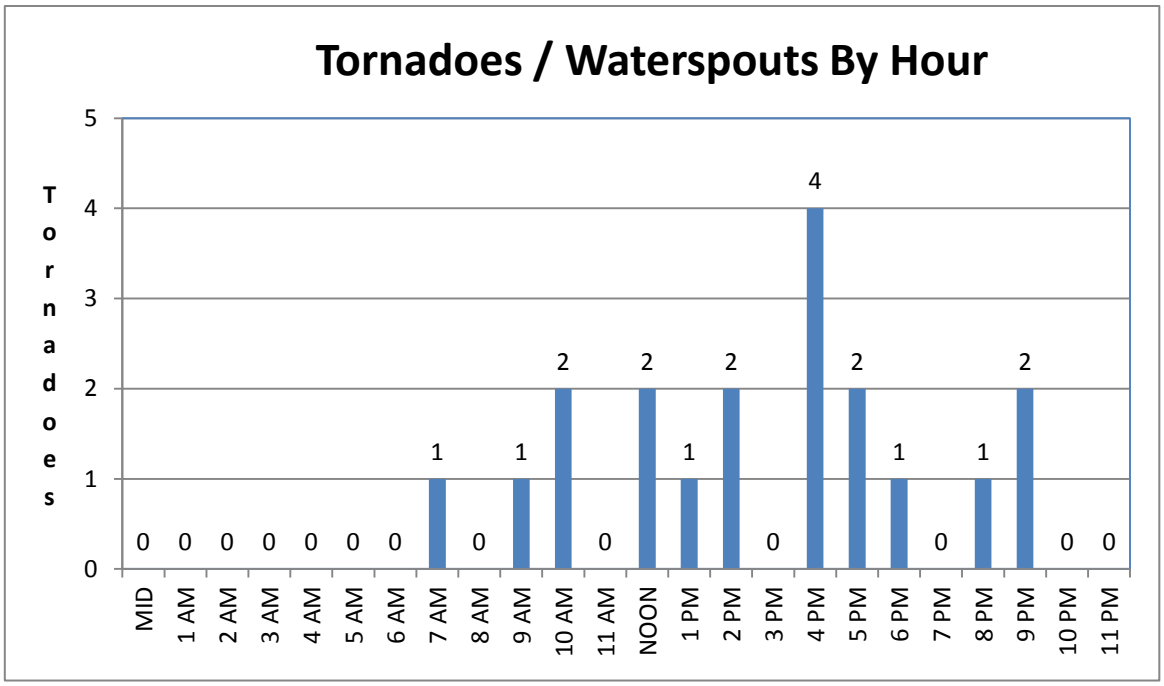


Tornadoes and waterspouts have been documented in Door County in April, June, July, August and September. The earliest documented tornado during the year occurred on April 22, 1970. On this day, two tornadoes were reported across the county. The first tornado moved from one mile north of Casco to Rio Creek. The second tornado touched down seven miles southeast of Maplewood. The tornado season peaks in July, then quickly ends by late September. The warm season, when the majority of tourist visit Door County (May through September), account for eighty-four percent of all tornado reports during the year. The latest documented waterspout on record during the fall occurred on September 29, 2005. A waterspout was reported from near Chambers Island to twelve miles southeast of Cedar River, Michigan. The latest tornado on record during the year occurred on September 19, 1999 when a tornado touched down eight miles southeast of Sturgeon Bay. In 2012, a waterspout was observed three miles west of Sister Bay on September 18.

Door County Severe Weather Facts (1950-2015)

Tornadoes / Waterspouts by Hour

Three out of the four morning reports were waterspouts over the Bay of Green Bay. There was a rare morning F/EF1 tornado that struck Jacksonport at 7:30 am (LST) on July 12, 1973. Overall, fifteen of the nineteen (79%) documented tornadoes and waterspouts occurred between noon and 10 pm local standard time.



Predominant Storm Reports – Wind and Hail Only

During the spring, hail is the dominant weather event that is reported to the National Weather Service. Typically, the atmosphere is cold aloft in the spring to support large hail reaching the ground. For the convective season, nearly six out of ten reports are high winds or wind damage compared to large hail.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	100	Jul	43.1	56.9
Feb	0.0	0.0	Aug	16.7	83.3
Mar	100	0.0	Sep	38.1	61.9
Apr	100	0.0	Oct	50.0	50.0
May	43.8	56.2	Nov	0.0	0.0
Jun	41.5	58.5	Dec	0.0	0.0
			Year	39.8	60.2

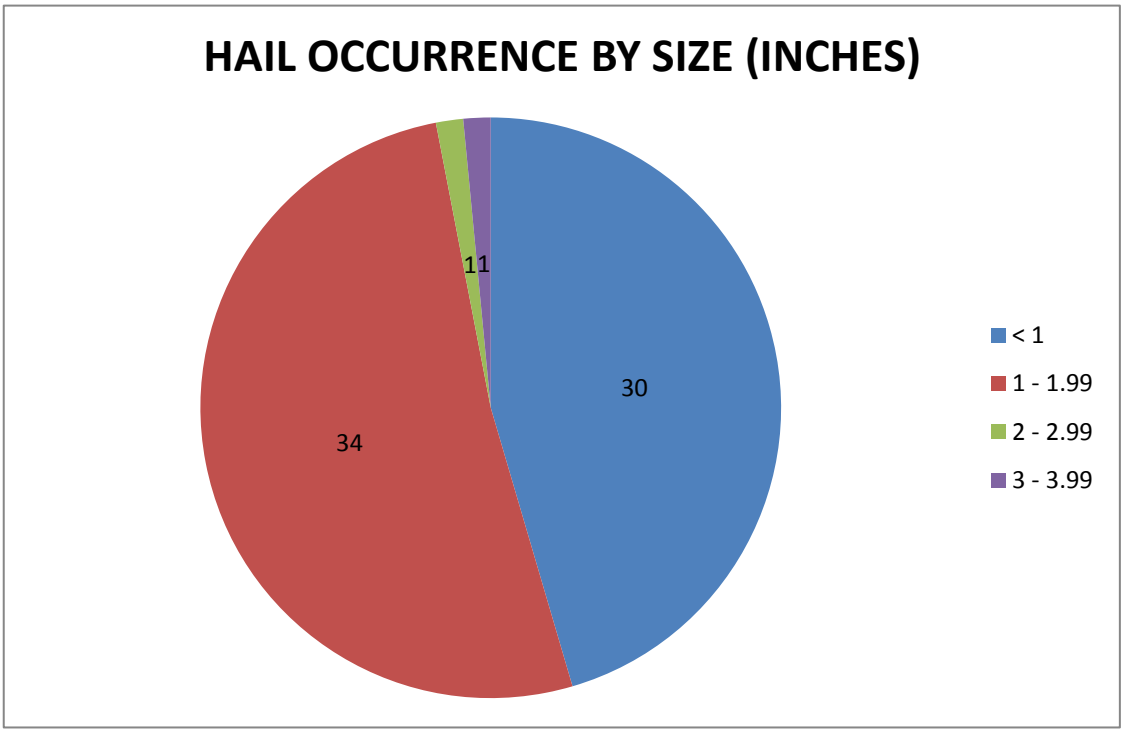
Door County Severe Weather Facts (1950-2015)

Large Hail in Door County

There have only been two documented reports of hail over two inches in diameter across the county. The largest documented hail stone in Door County was 3.0 inches in diameter which occurred at Baileys Harbor on September 26, 1998; and is the most recent report of a hailstone over two inches in diameter reported across the county. Overall, hail ranging in size from three quarters to one inch accounted for eighty-two percent of the documented large hail reports. Hail over two inches in diameter only accounted for three percent of all large hail reports.

Hail over 2 inches

Month	Date	Year	Time	Location	Latitude	Longitude	Size
9	26	1998	0949	Baileys Harbor	45.07	87.13	2.75
8	9	2001	1250	1S Sturgeon Bay	44.82	87.38	3.00



Door County Severe Weather Facts (1950-2015)

Door County Summary

In Door County, the severe weather season begins in earnest May and wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary minor peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring. Wind is the dominant severe weather report from May through September. Although rare, strong tornadoes can hit Door County and produce devastating damage as evidenced by the photograph (below) from the F3 tornado on August 23, 1998. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Door County ranks 15th in the total number of storm reports and tied for 13th in the number of tornado reports since 1950.

Door County Severe Weather Facts (1950-2015)

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which covers twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Door County Severe Weather Facts (1950-2015)

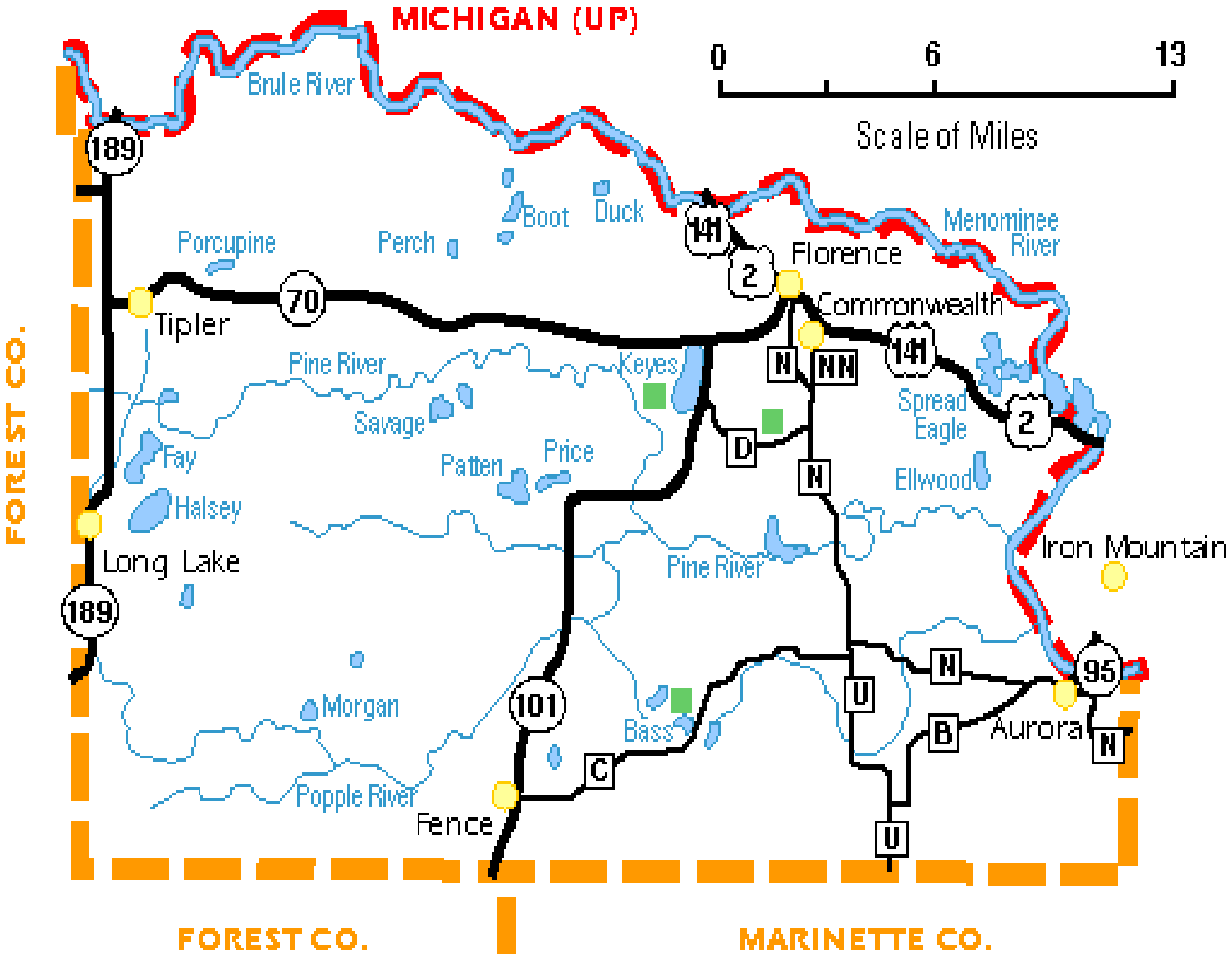
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Florence County Severe Weather Facts (1950-2015)



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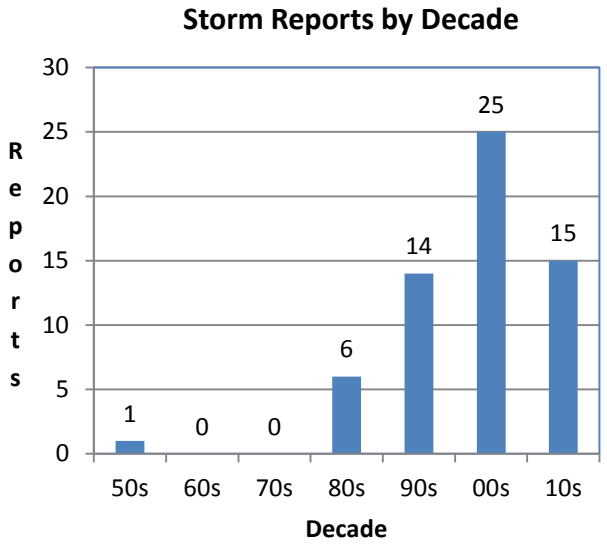
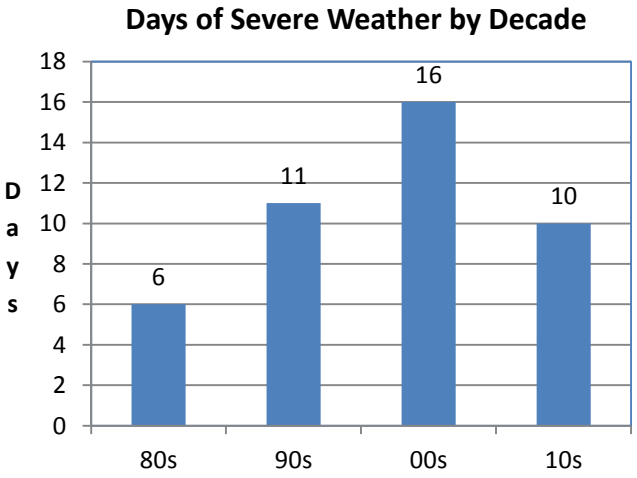
Florence County Severe Weather Facts (1950-2015)



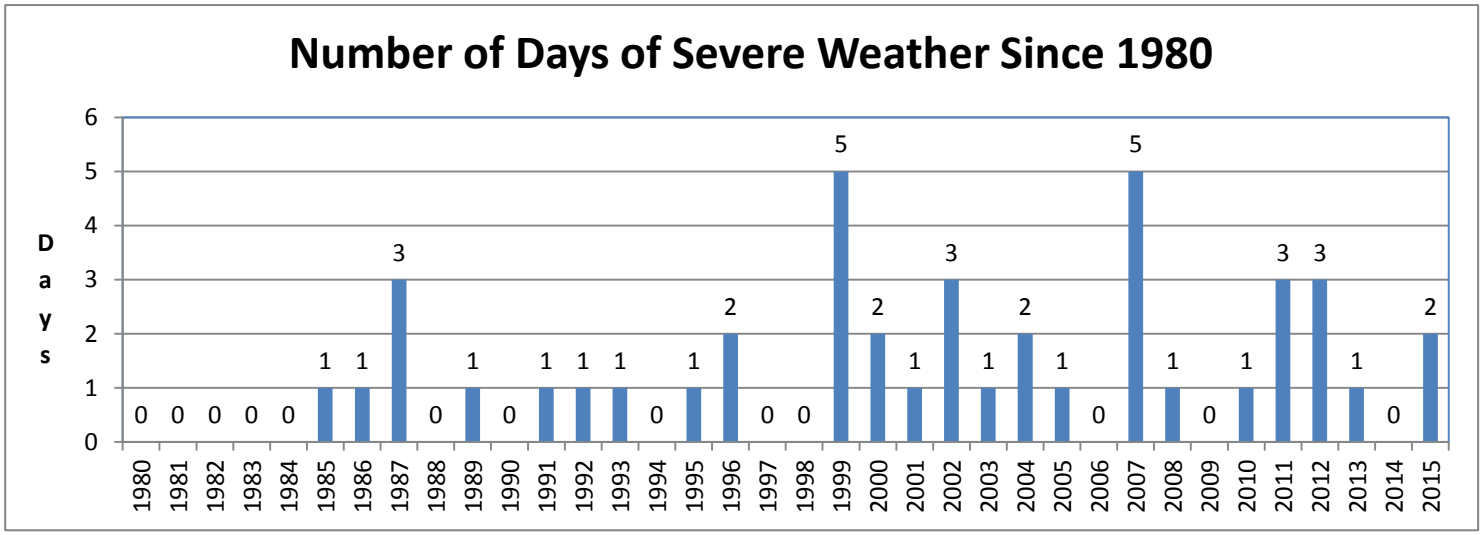
Storm Reports by Decade

Since 1950 there have been 61 documented reports of large hail, damaging winds and tornadoes across Florence County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 316 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

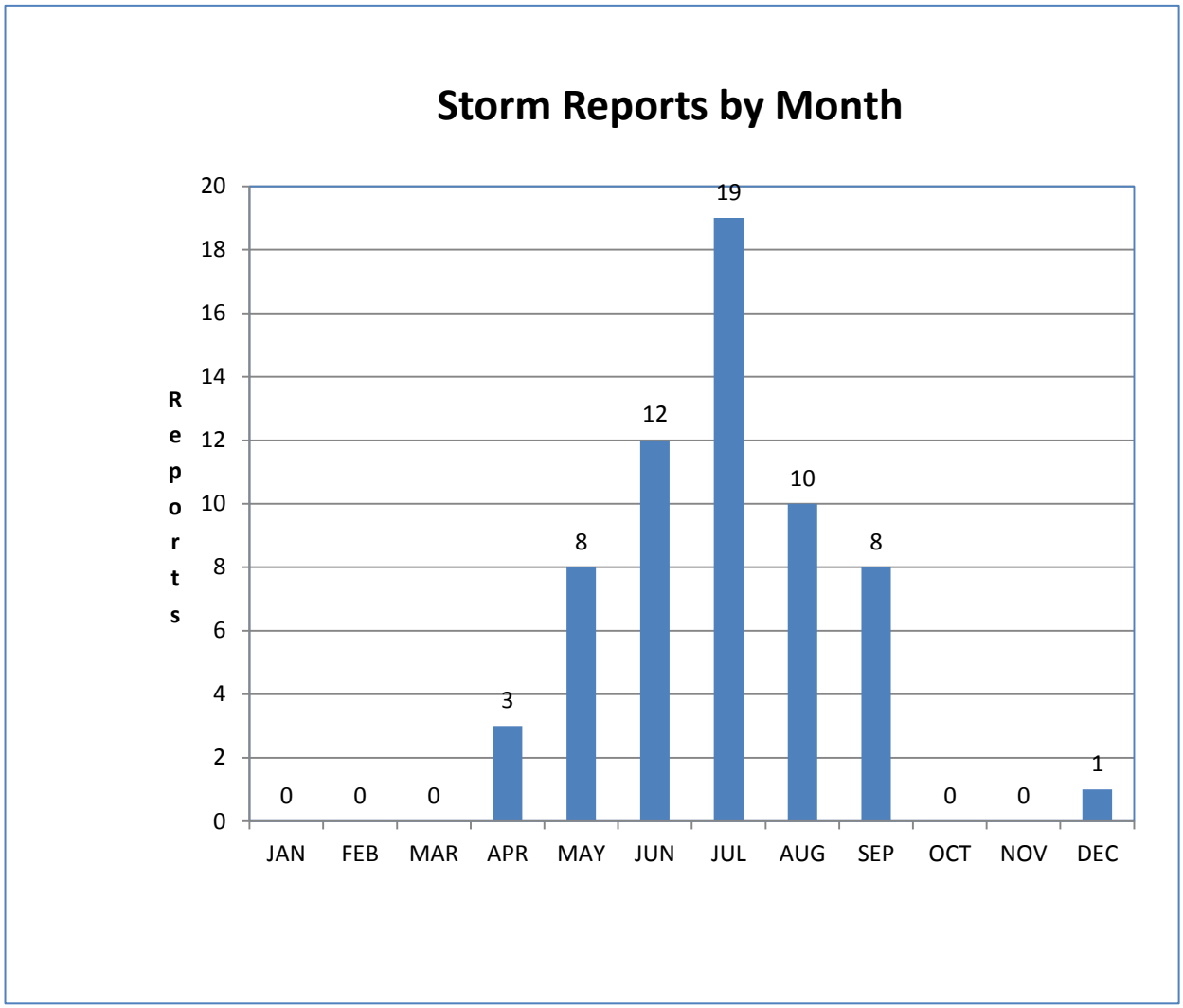
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 166 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances and greater severe weather awareness. Since 2010, Florence County averages 1.7 days of severe weather in a given year. The long term average from 1980-2015 is 1.2 days. The most active years were 1999 and 2007 with 5 days of severe weather; followed by three days of severe weather in 1987, 2002, 2011 and 2012.



Florence County Severe Weather Facts (1950-2015)

Storm Reports by Month

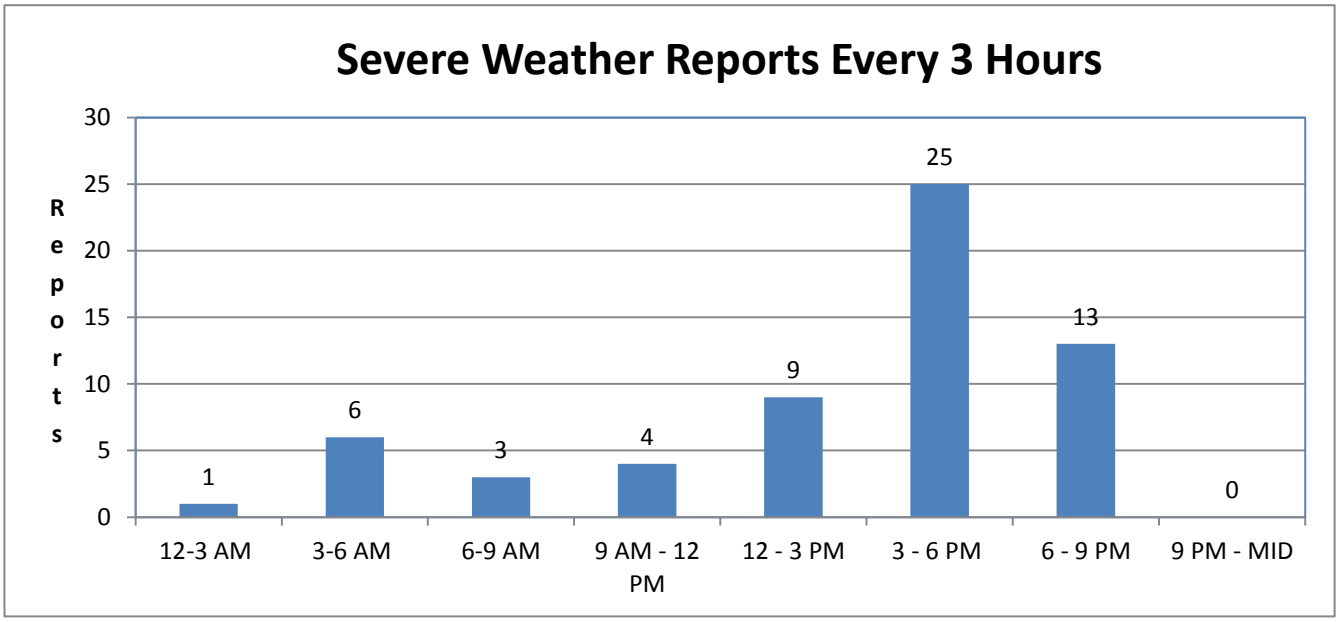
Severe weather reports have occurred in Florence County from April to September with a rare report during December. The earliest report of severe weather during the year occurred on April 18, 2004. On this date, hail the size of three quarters of an inch and winds were estimated at 65 mph two miles southwest of Florence. The convective season begins in earnest in May and peaks during the summer months of June, July, and August. The convective season wanes quickly in September. A rare report of severe weather late in the year occurred on December 5, 2001. It is one thing to get severe weather across southern Wisconsin in early December, but it is unheard of to get thunderstorms that produce severe weather in northern Wisconsin during this time of year. Unseasonably mild temperatures combined with a cold front on this date triggered scattered thunderstorm which produced one inch hail at Florence on this date. The warm season months of May through September account for 93 percent of all reports during the year.

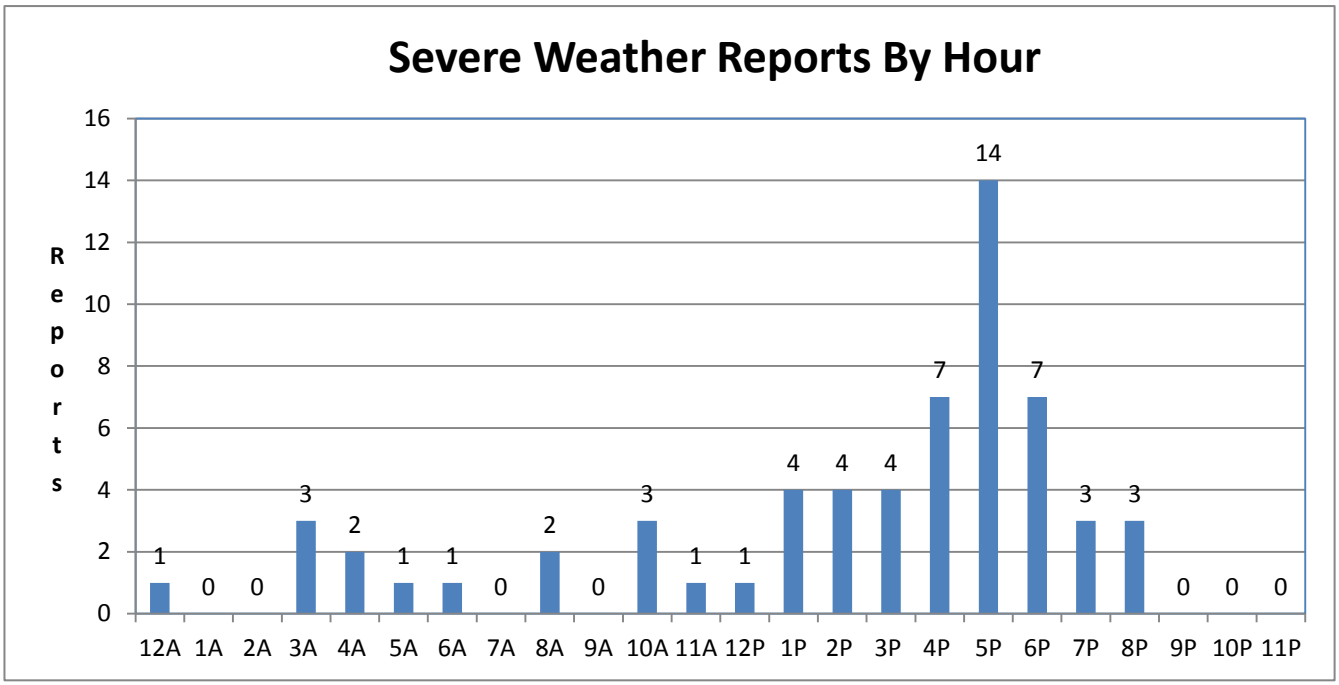


Florence County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Florence County. Seventy-five percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Florence County, reports of severe picked up after 1 pm local standard time with the peak reporting time between 4 and 7 pm. The peak in storm activity during the late afternoon and early evening corresponds to peak afternoon heating when the atmosphere becomes most unstable. During the summer months of July and August, there was another minor peak of severe weather that occurs between midnight and 5 am. In these events, convection that fires up across the Dakotas and Minnesota moves eastward into the county overnight.

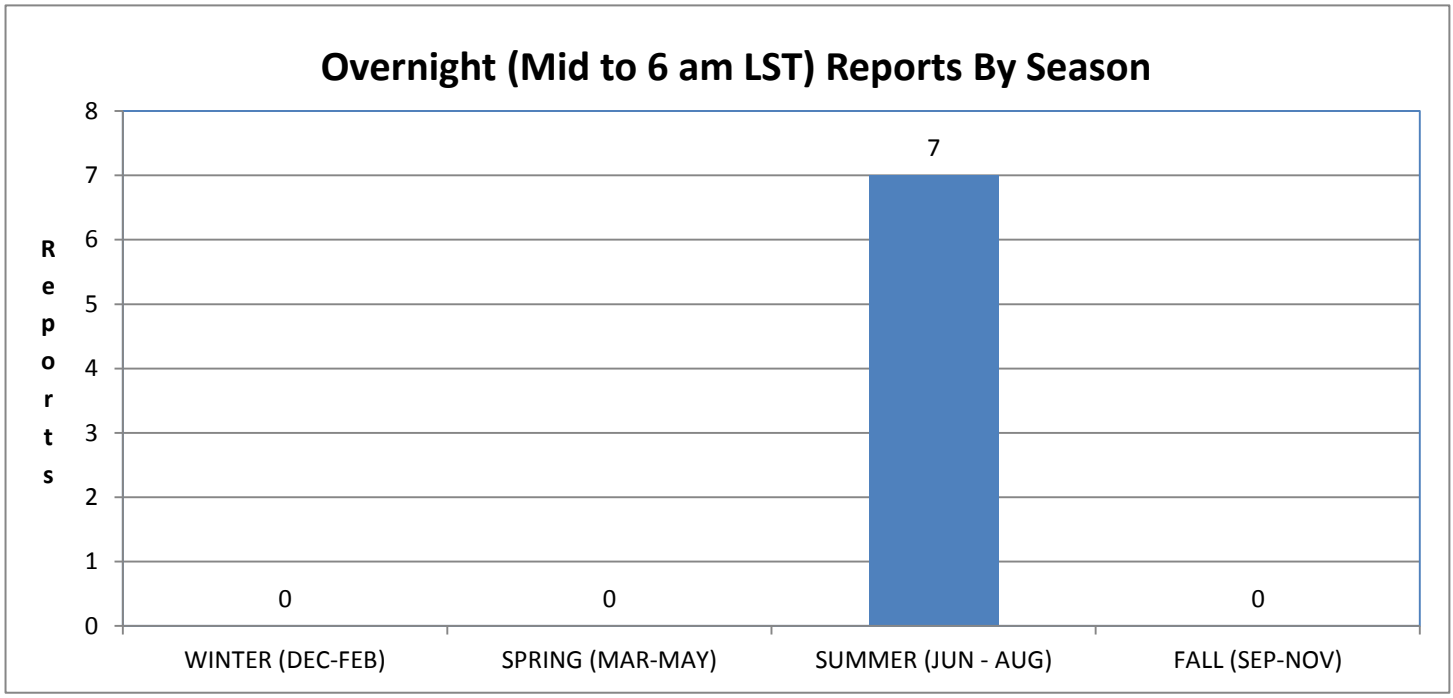




Florence County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for all of the overnight reports during the year.



Florence County Severe Weather Facts (1950-2015)

Florence County Tornadoes

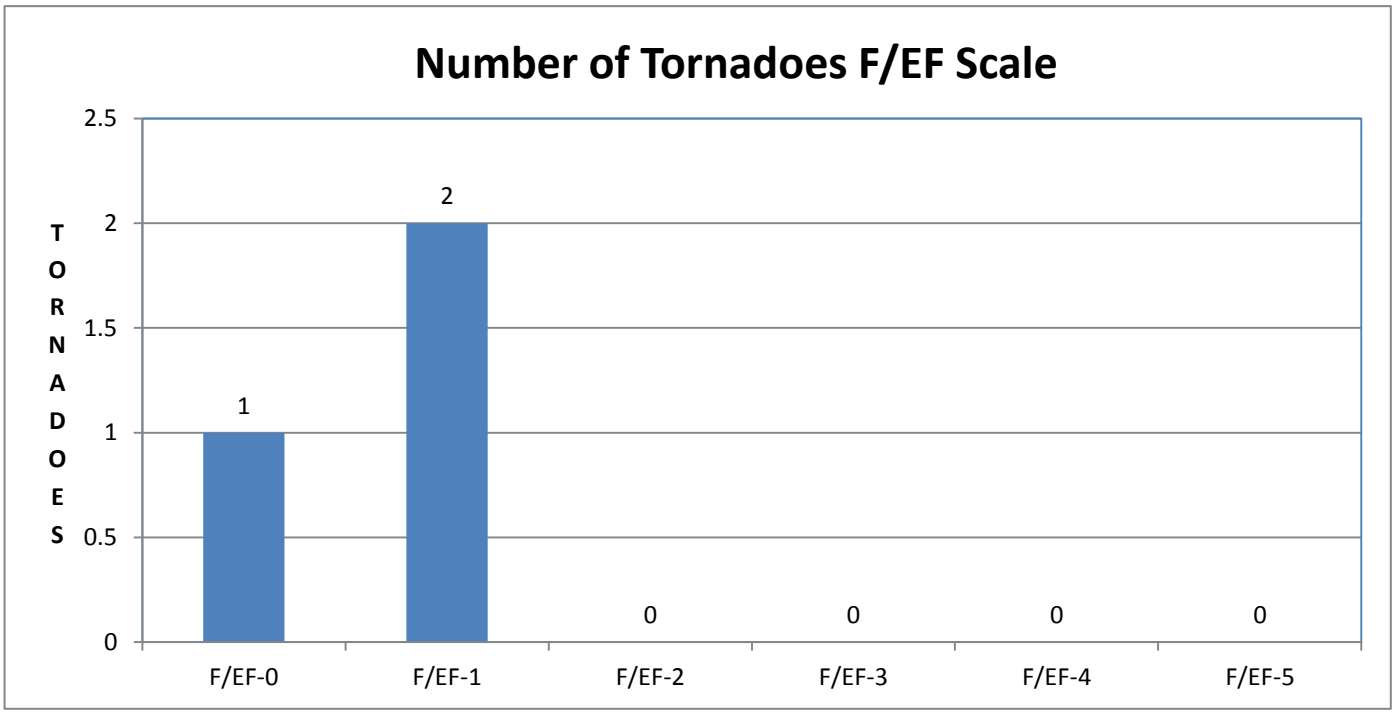
Since record keeping began in 1950, there have been three documented tornadoes in the county. The first tornado occurred on June 14, 1957 which touched down in Florence and traveled eight miles before dissipating. The second tornado touched down about five and a half miles southeast of Spread Eagle and traveled less than a mile. The third tornado touched down three miles southeast of Argonne and then dissipated six miles south-southeast of Long Lake on April 10, 2011. The tornado was one of ten that touched down on April 10th. The ten tornadoes on this date also set a new record for the most tornadoes on any single day across north-central and northeast Wisconsin.

Two tornadoes were rated F/EF-1 and one tornado was rated as an F/EF-0. The most tornadoes documented in a single year occurred in 1957, 2002 and 2011 with one tornado. A tornado strike in Florence County occurs on average every twenty-two years.

Florence County Tornadoes

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	14	1957	1730	Florence	1
2		9	30	2002	1810-1811	5.5 SSE - 5.5 SE Spread Eagle	1
3		4	10	2011	1830-1846	3 SE Argonne – 6 SSE Long Lake	0

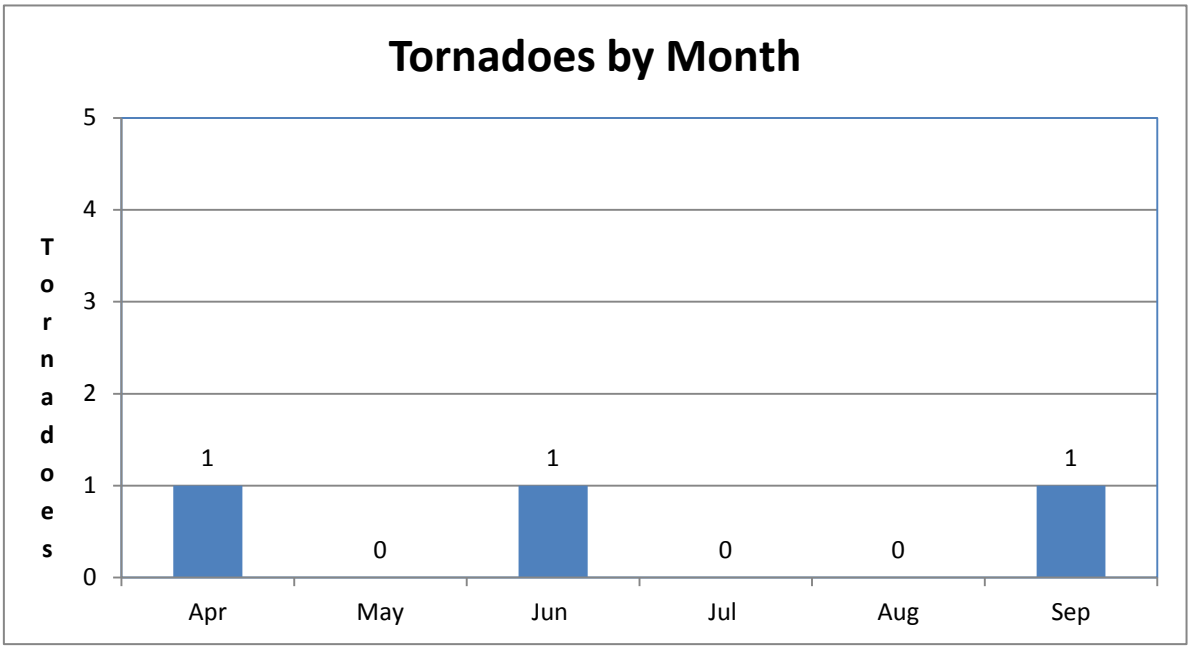
Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate



Florence County Severe Weather Facts (1950-2015)

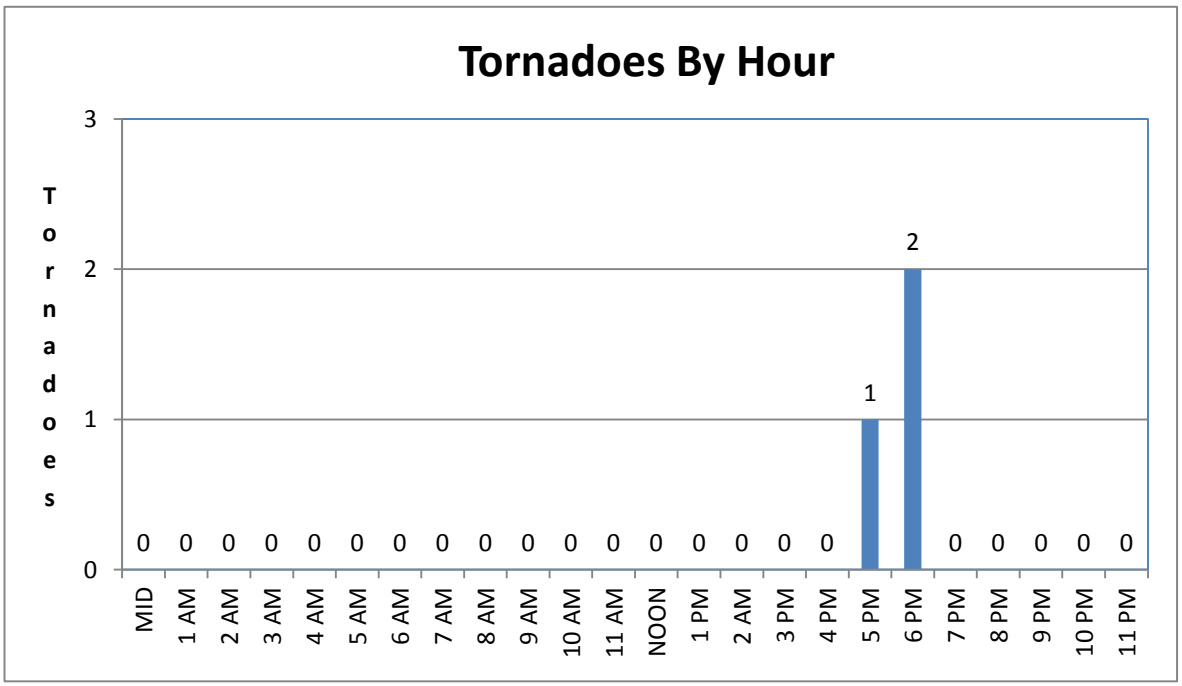
Tornadoes by Month

One tornado has been reported during the months of April, June and September.



Tornadoes by Hour

All three tornadoes have occurred between the hours of 5 pm and 7 pm local standard time.



Florence County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

In the spring, the reports were evenly split between large hail and strong winds / damaging winds while the summer months of July and August was strongly biased towards strong winds or wind damage across the county. Large hail was the predominant type of report during the fall and early winter. Just over six out of ten reports were high winds or wind damage compared to large hail during the year.

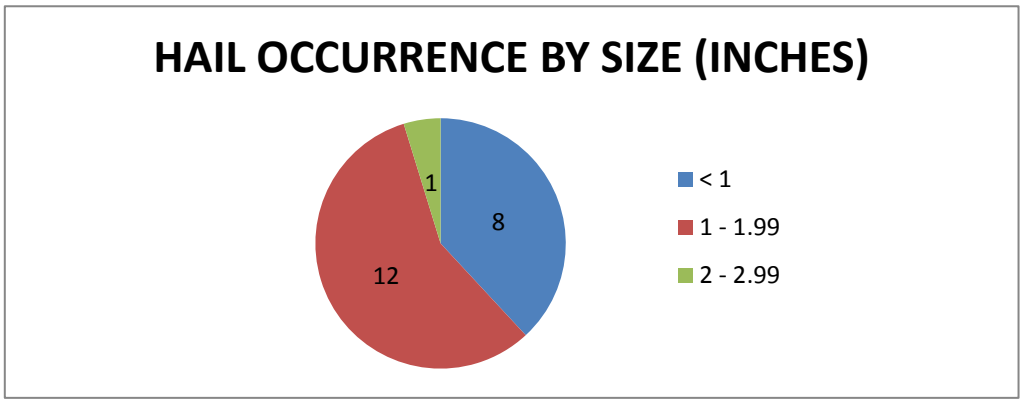
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	21.1	78.9
Feb	0.0	0.0	Aug	30.0	70.0
Mar	0.0	0.0	Sep	57.1	42.9
Apr	50.0	50.0	Oct	0.0	0.0
May	37.5	62.5	Nov	0.0	0.0
Jun	45.5	54.5	Dec	100.0	0.0
			Year	36.2	63.8

Large Hail in Florence County

There have only been three documented reports of hail over one and a half inches in diameter across the county. The largest hail stone of 2.0 inches was documented seven tenths of a mile south of Tipler on May 25, 2008. The most recent report of large hail over an inch and a half was reported two miles west-northwest of Ridgetop on June 7, 2011. Overall, hail ranging from in size from three quarters to one inch accounted for eighty-one percent of the documented large hail reports; while large hail of two inches or greater only accounted for five percent of all large hail reports.

Hail over 1.5 inches

DATE			TIME				HAIL
MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	LATITUDE	LONGITUDE	(INCHES)
9	6	1985	1950	9 SW Florence	45.83	88.40	1.75
9	20	2002	1729	Long Lake to Tipler	45.83	88.67	1.75
5	25	2008	1513	0.7 S Tipler	45.91	88.63	2.00
6	7	2011	0457	2 WNW Ridgetop	45.93	88.31	1.75



Florence County Severe Weather Facts (1950-2015)

Florence County Summary

In Forest County, the severe weather season begins in earnest in May and wanes quickly by September, although 2011 brought a rare tornado outbreak to north-central and far northeast Wisconsin. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or late fall. Wind is the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Florence County ranks 21st in the total number of storm reports and tied for 21st in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Florence County Severe Weather Facts (1950-2015)

Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
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3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
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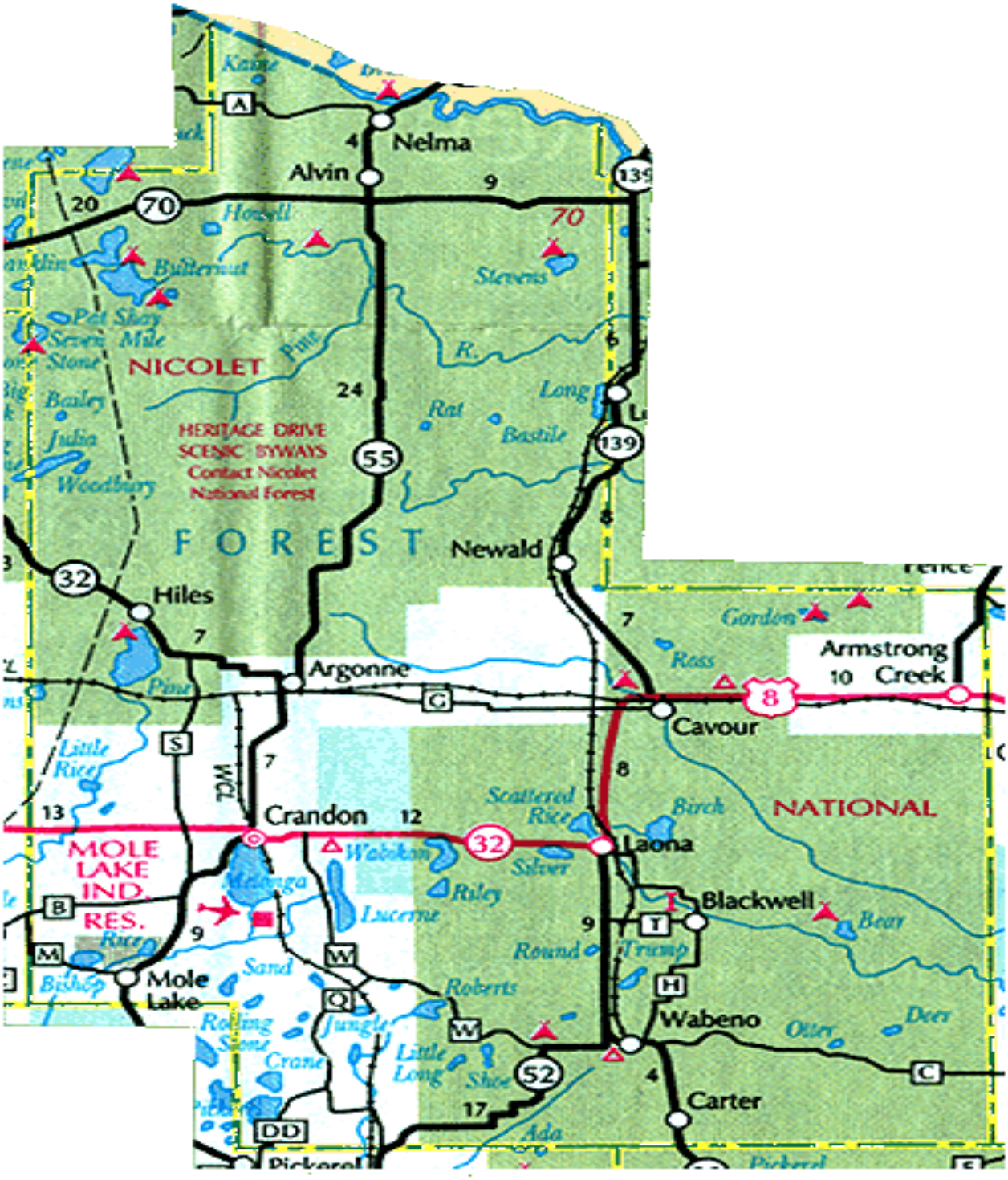
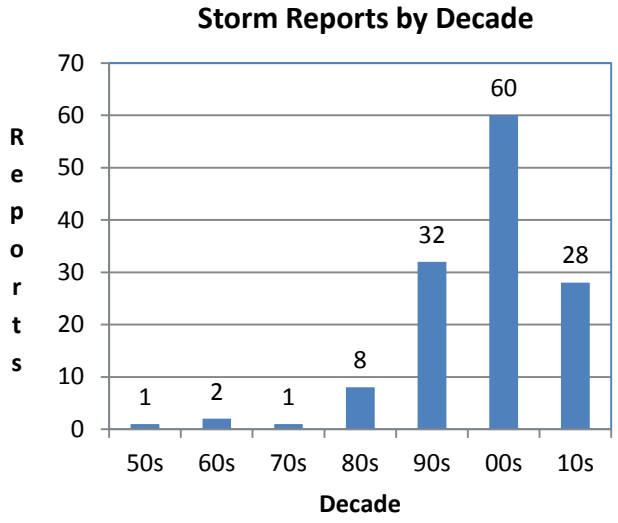
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Forest County Severe Weather Facts (1950-2015)

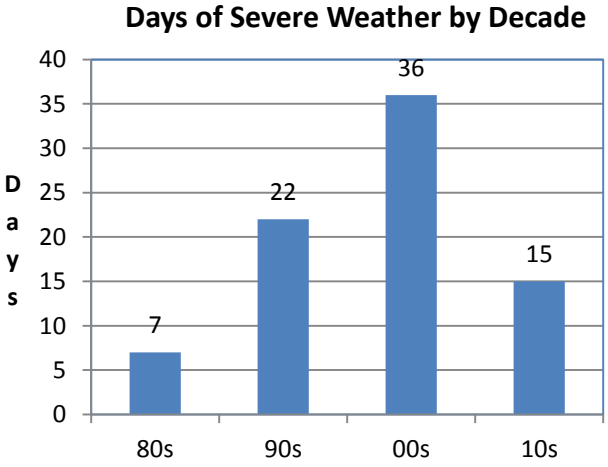


Forest County Severe Weather Facts (1950-2015)



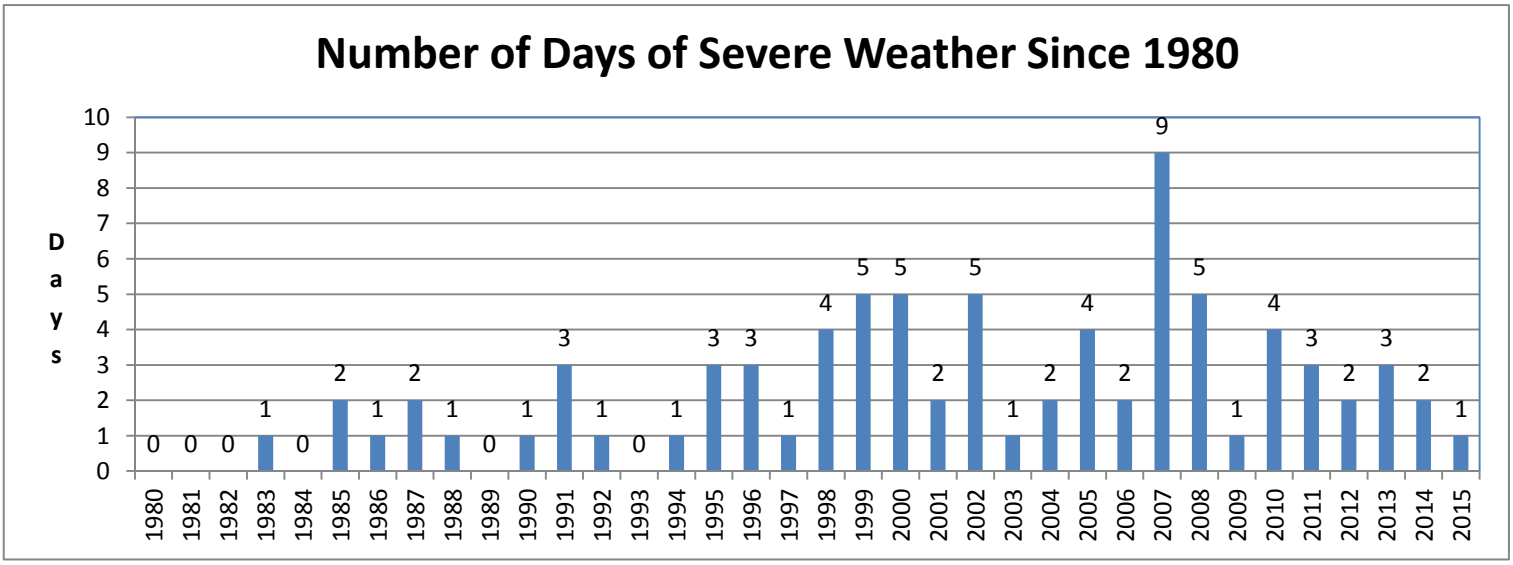
Storm Reports by Decade

Since 1950 there have been 131 documented reports of large hail, damaging winds and tornadoes across Forest County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 650 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

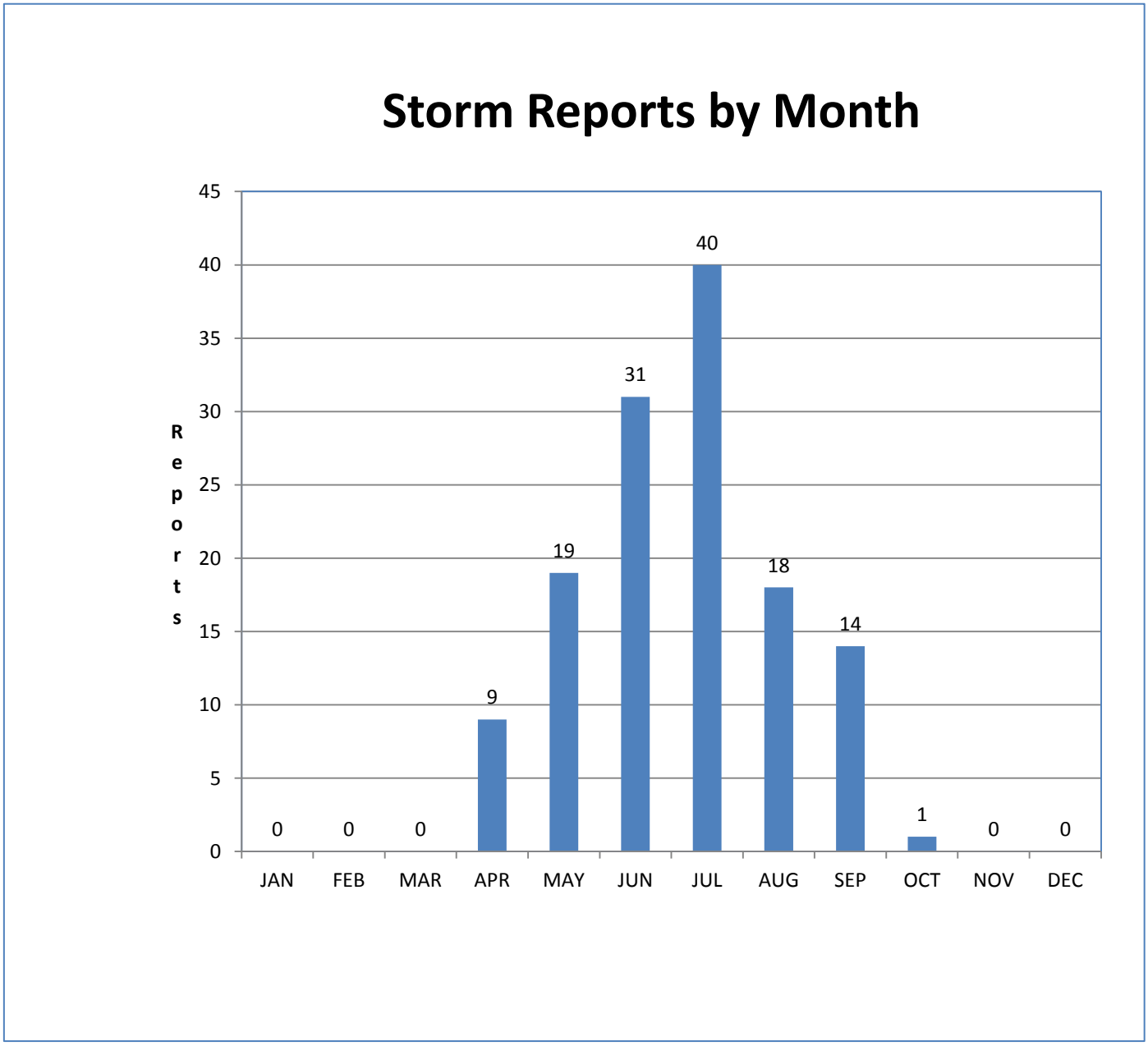
In order to address the impact of multiple reports for the same storm, the data was examined by the number of days of severe weather. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 414 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances and greater severe weather awareness. Since 2010, Forest County averages 2.5 days of severe weather in a given year. The long term average from 1980-2015 is 2.2 days. The most active year was 2007 with 9 days of severe weather; followed by 5 days in 1999, 2000, 2002 and 2008.



Forest County Severe Weather Facts (1950-2015)

Storm Reports by Month

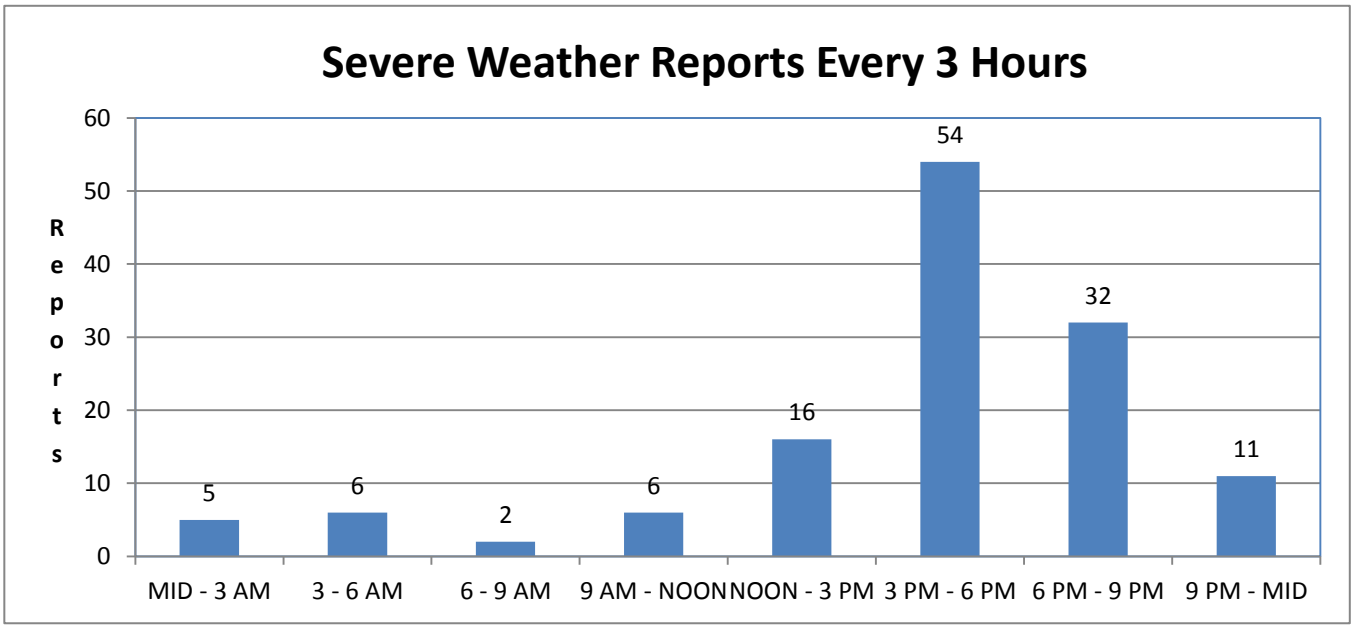
Severe weather has been reported across Forest County from April through October. On a few occasions, severe weather breaks out during the month of April. In 2011, Forest County experienced the earliest severe weather event for so early in the year on April 10. On this date, two tornadoes touched down across the county along with large hail up to two inches in diameter. The previous earliest documented severe weather report during the year occurred on April 11, 1996 when 1.75 inch hail was reported six miles west of Crandon. The severe weather season begins in earnest in May and peaks in June and July. June and July accounted for fifty-four percent of all severe weather reports. The warm season period of May through September accounts for ninety-three percent of all severe weather reports during the year. The severe weather season wanes in August and September. The latest report of large hail during the year occurred on October 20, 2010 when penny size hail (0.75 inches) was reported eight tenths of a mile northeast of Wabeno.

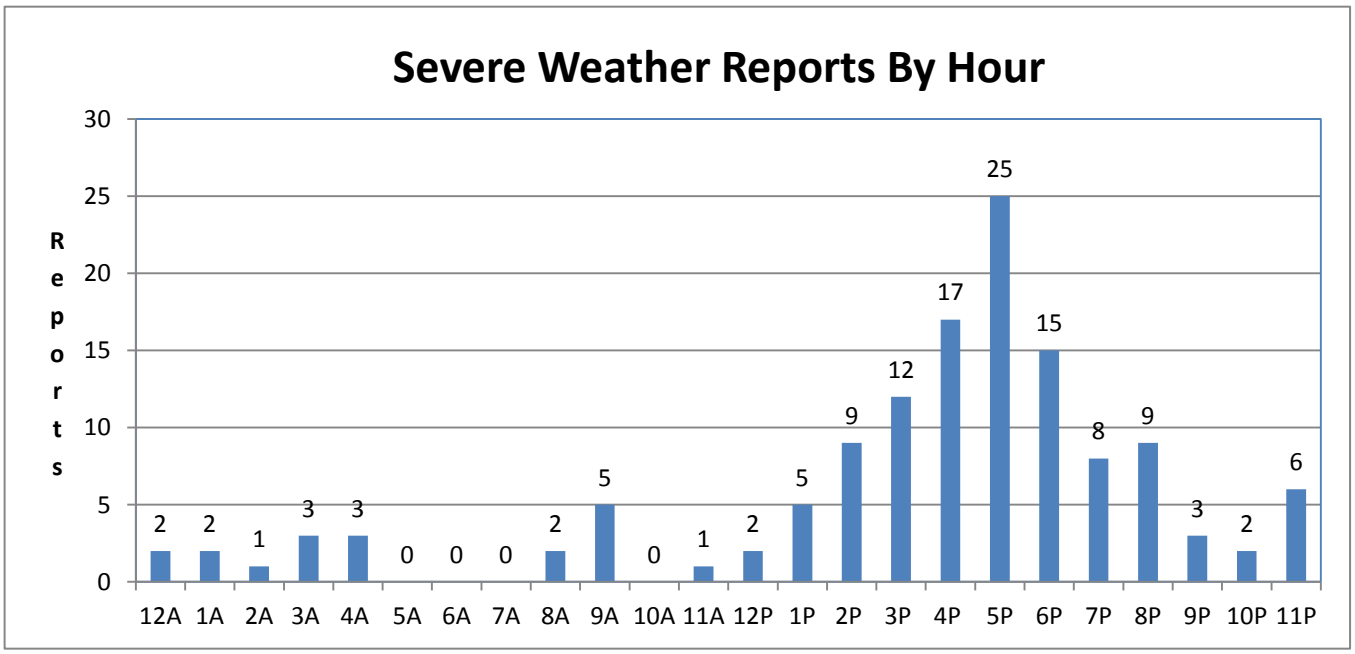


Forest County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Forest County. Seventy-six percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Forest County, severe weather reports increased rapidly after 2 pm local standard time. The peak number of reported occurred between 3 pm and 7 pm. The peak in the number of reports corresponds to peak afternoon heating when the atmosphere is most unstable. During May through August, there are scattered reports of severe weather between midnight and 5 am. In these cases, convection that fires up across the Dakotas and Minnesota works its way into the county overnight.

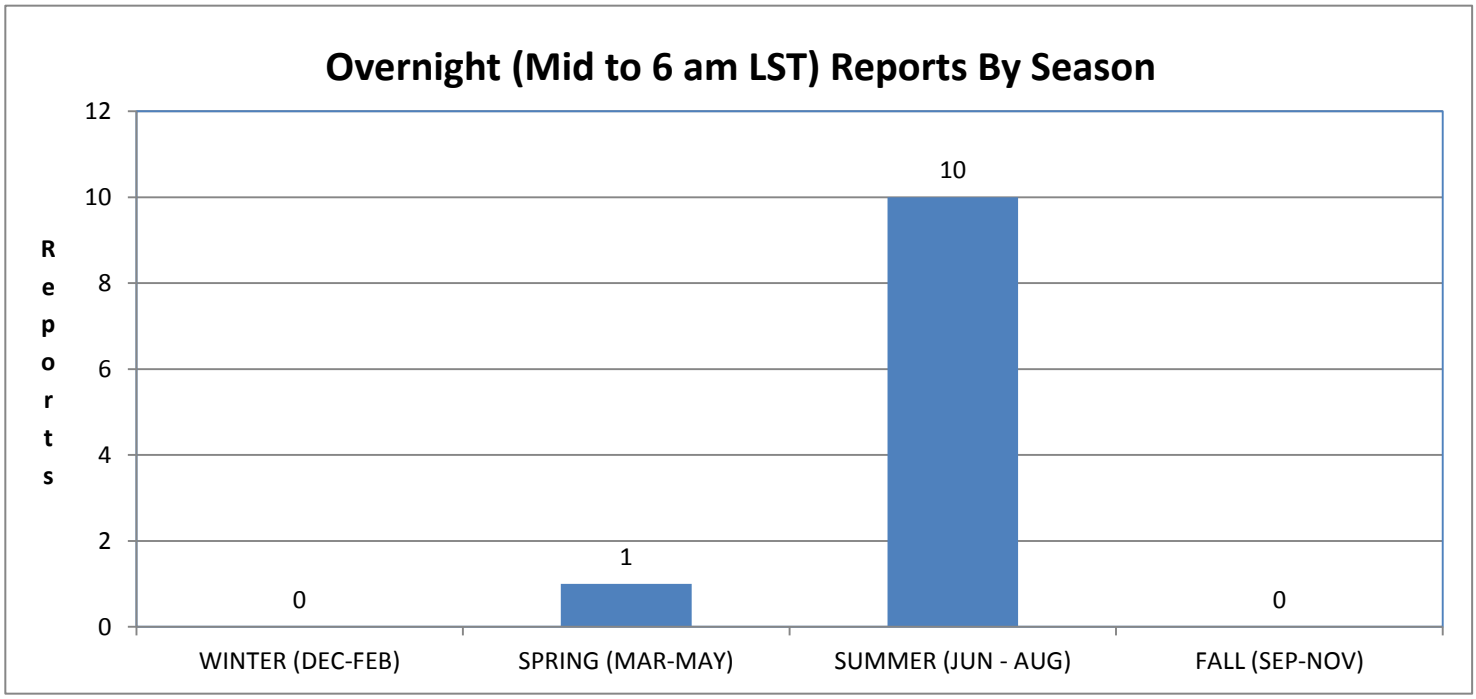




Forest County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for ten out of the eleven (91%) overnight reports during the year.



Forest County Severe Weather Facts (1950-2015)

Forest County Tornadoes

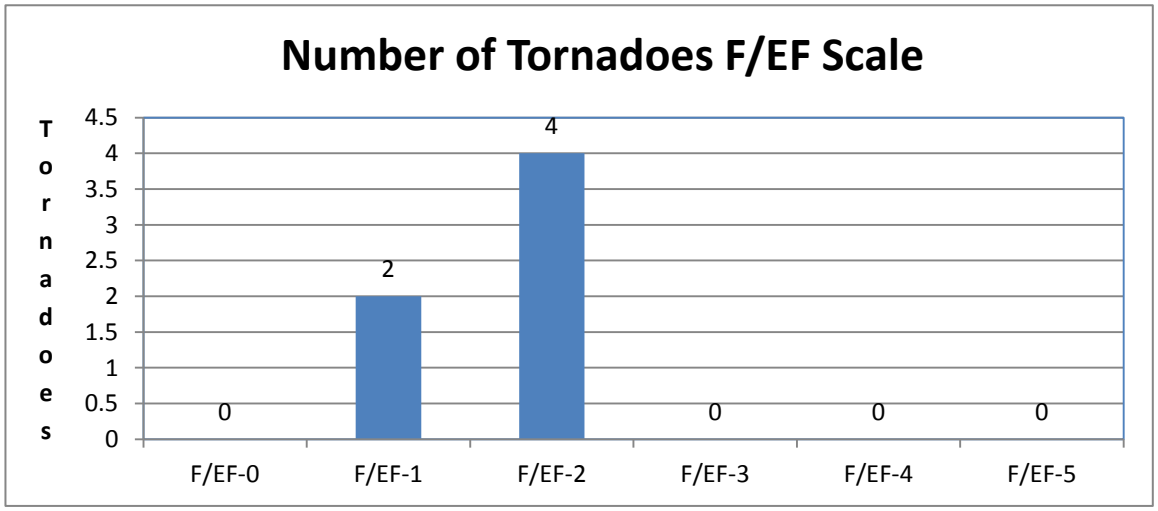
Since record keeping began in 1950, there have been six documented tornadoes in Forest County. Of the six tornadoes, there have been zero documented tornadoes of F/EF-3 or greater intensity. Four out of the six tornadoes (67 percent) have been rated F/EF2 intensity (see table below) with the other two tornadoes rated at F/EF-1. Until 2011 with two tornadoes on April 10th, there had not been more than one documented tornado in a given year. Ten tornadoes touched down across north-central and northeast Wisconsin on April 10th. The ten tornadoes on this date also set a new record for the most tornadoes on any single day across north-central and northeast Wisconsin. Since 1950, tornadoes have touched down in five different years. A tornado strike in Forest County occurs on average every eleven years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	19	1963	1800	Laona	1
2		6	30	1968	0400	3 NW Cavour	2
3		9	16	1972	1605	4 NW Wabeno - 2 N McAllister	2
4		5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	2
5		4	10	2011	1830-1846	3 SE Argonne – 6 SSE Long Lake	2
6		4	10	2011	1903-1908	4.2 WNW – 3.2 N Armstrong Creek	1

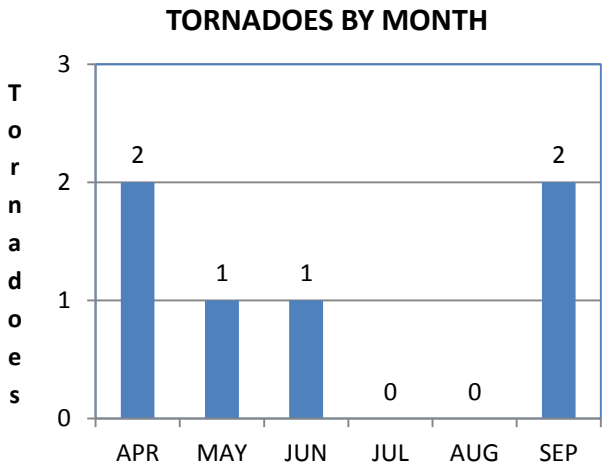
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

F/EF-2 or Greater Tornadoes in Forest County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
2		6	30	1968	0400	3 NW Cavour	2
3		9	16	1972	1605	4 NW Wabeno - 2 N McAllister	2
4		5	30	1994	2050-2116	2 SW Crandon - 1 N Laona	2
6		4	10	2011	1830-1846	3 SE Argonne – 6 SSE Long Lake	2



Forest County Severe Weather Facts (1950-2015)

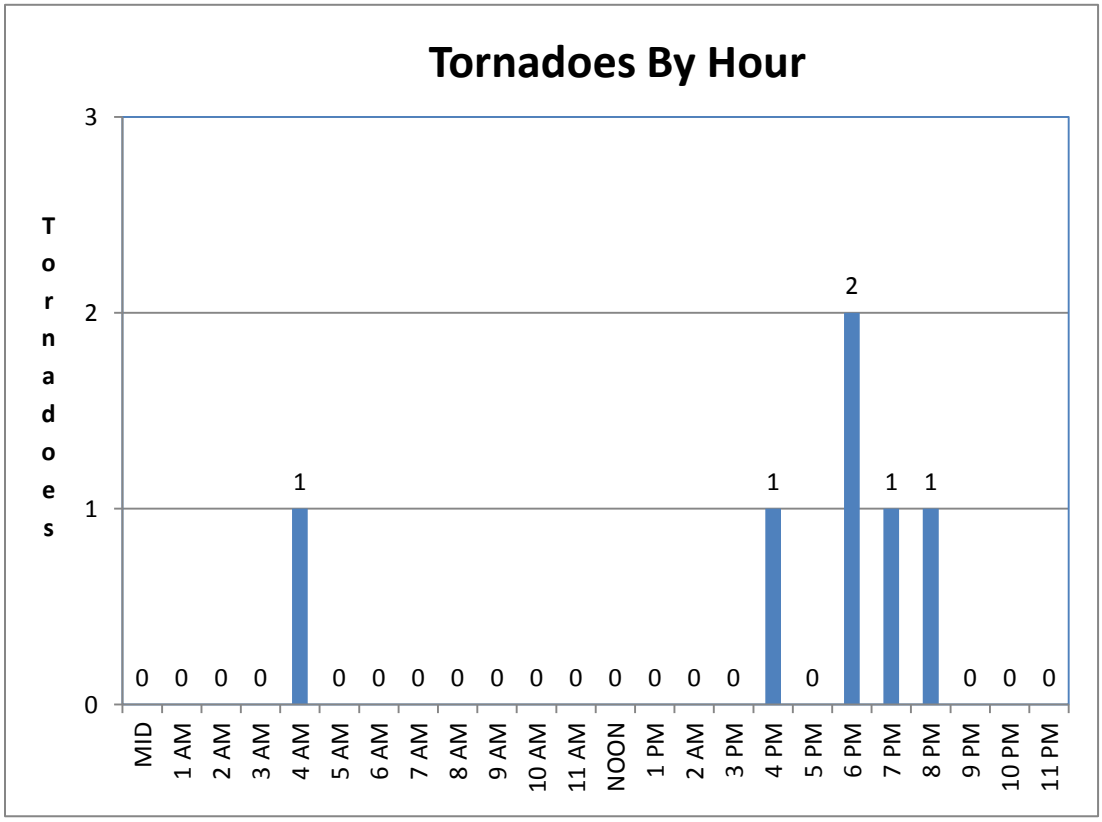


Tornadoes by Month

Documented tornadoes have occurred in Forest County in April, May, June and September. On April 10, 2011, Forest County experienced the greatest tornado outbreak for so early in the year and the greatest single day tornado outbreak on record with two tornadoes. The previous earliest documented tornado during the year occurred on May 30, 1994 when a tornado touched down two miles southwest of Crandon which moved to one mile north of Laona before dissipating. The latest tornado on record during the year occurred on September 19, 1963 when an F/EF-1 tornado touched down near Laona.

Tornadoes by Hour

In Forest County, five out of the six (eighty-three percent) documented tornadoes have occurred between 4 pm and 9 pm local standard time. There was a rare F/EF2 overnight tornado that occurred three miles northwest of Cavour around 4 am on June 30, 1968.



Forest County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During April, September and October, large hail is the dominant type of severe weather across the county. During the remainder of the convective season, around six and a half out of every ten reports are strong winds / wind damage compared to large hail. Wind damage is very prominent during the month of August with over nine out of ten reports are strong winds or wind damage.

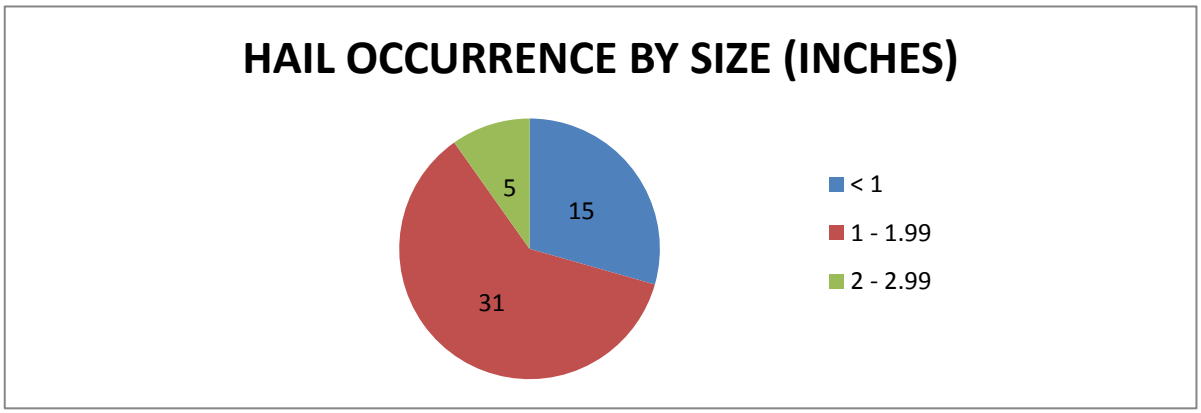
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	45.0	55.0
Feb	0.0	0.0	Aug	16.7	83.3
Mar	0.0	0.0	Sep	50.0	50.0
Apr	71.4	28.6	Oct	100.0	0.0
May	50.0	50.0	Nov	0.0	0.0
Jun	33.3	66.7	Dec	0.0	0.0
			Year	41.3	58.7

Large Hail in Forest County

There have only been five documented reports of large hail over two inches in diameter across the county. The largest hail stone of 2.75 inches in diameter was documented three miles southwest of Blackwell on June 8, 2000 and again at Laona on June 7, 2007. The last report of large hail two inches or greater in diameter occurred 1.4 miles south of Lake Metonga on April 10, 2011 when two inch hail was reported. Overall, hail ranging in size from three quarters to one inch accounted for sixty-one percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for only ten percent of all large hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		9	3	1958	1730	4 S Laona	2.50
2		6	8	2000	2145	3 SW Blackwell	2.75
3		6	7	2005	1741	Laona	2.75
4		6	7	2005	1754	Crandon	2.00
5		4	10	2011	1835	1.4 S Lake Metonga	2.00



Forest County Severe Weather Facts (1950-2015)

Forest County Summary

In Forest County, the severe weather season begins in earnest in May and wanes quickly by September, although 2011 brought the earliest documented reports of tornadoes and large hail to the county. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail or damaging winds in the spring or fall. Strong winds or wind damage are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Forest County ranks 19th in the total number of storm reports and 20th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Forest County Severe Weather Facts (1950-2015)

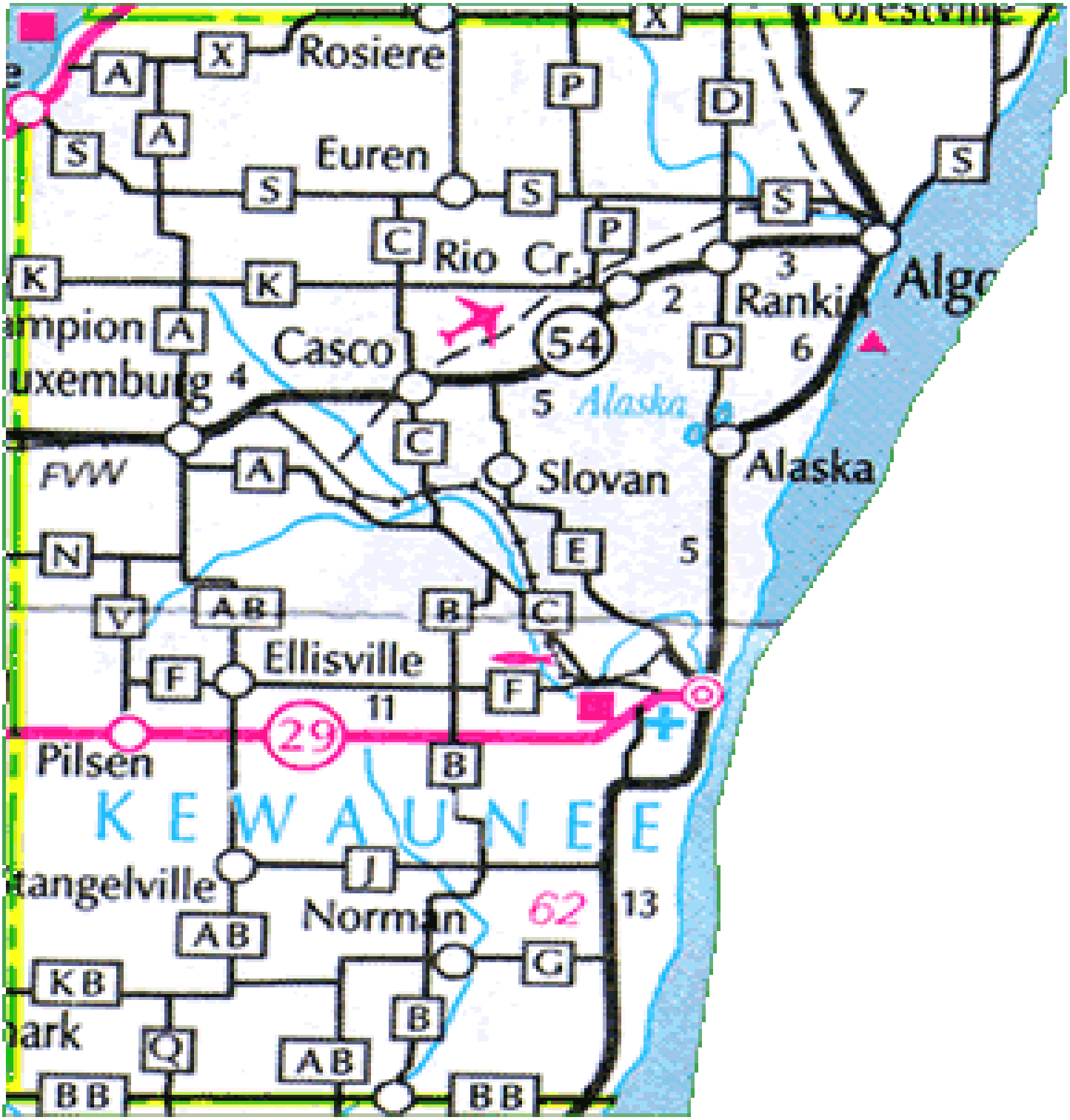
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

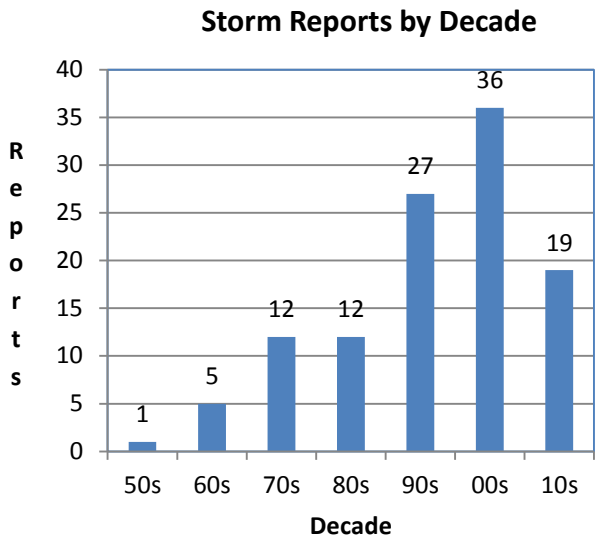
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Kewaunee County Severe Weather Facts (1950-2015)

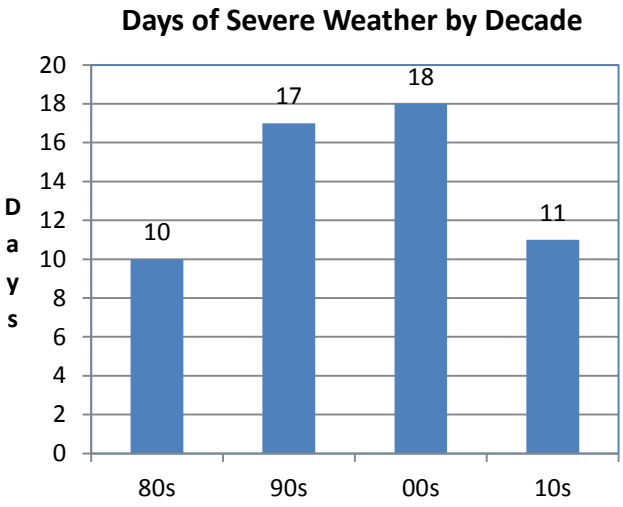


Kewaunee County Severe Weather Facts (1950-2015)



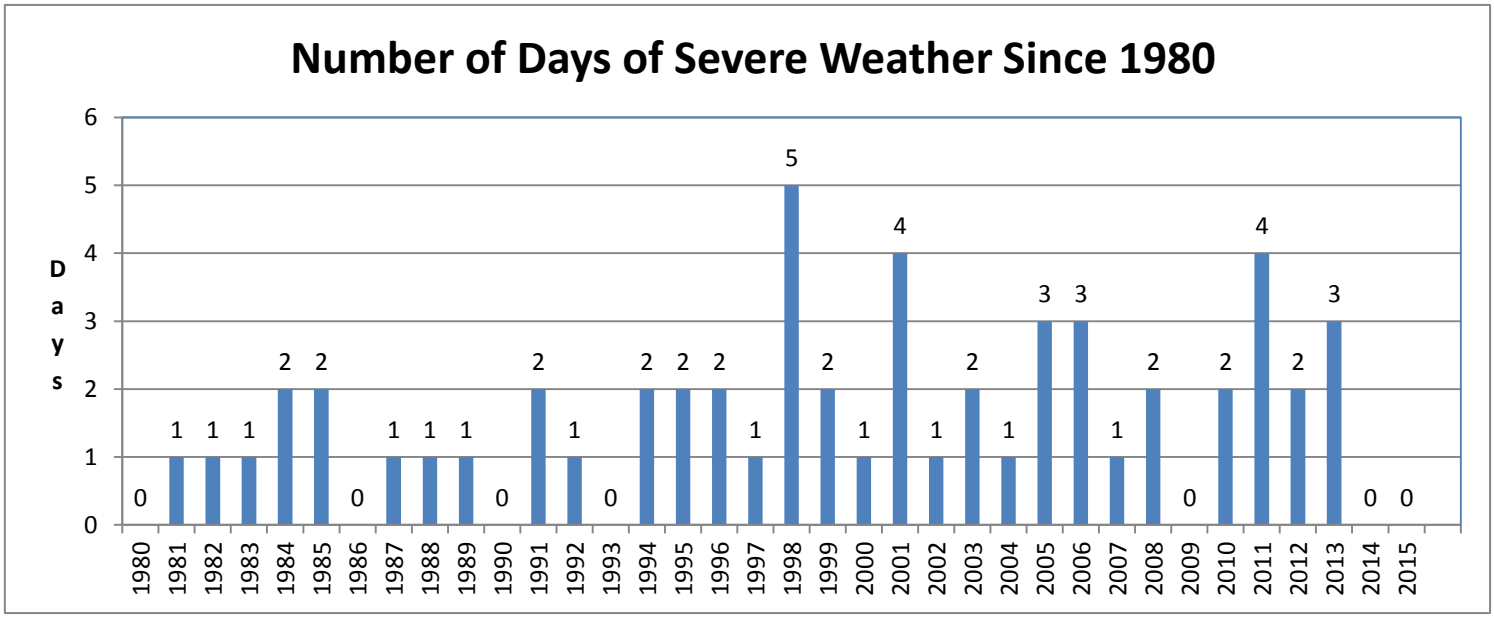
Storm Reports by Decade

Since 1950 there have been 112 documented reports of large hail, damaging winds and tornadoes across Kewaunee County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 200 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

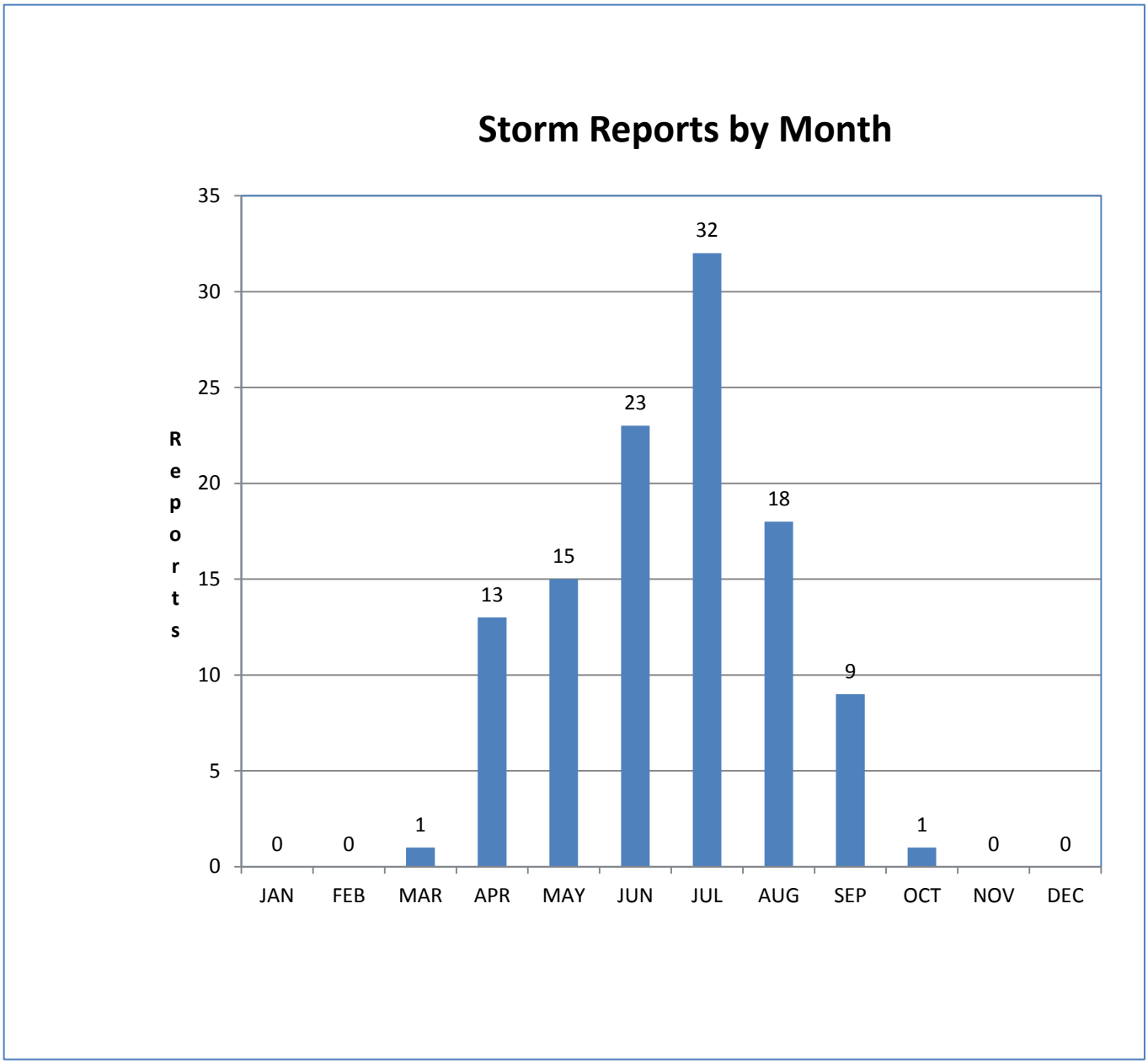
In order to address the impact of multiple reports for the same storm, the data was examined by the number of days of severe weather. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 80 percent in the number of severe weather days from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Kewaunee County averages 2.2 days of severe weather in a given year. The long term average from 1980-2014 is 1.6 days. The most active year was 1998 with five days of severe weather; followed by four days of severe weather in 2001 and 2011; and three days in 2005, 2006 and 2013.



Kewaunee County Severe Weather Facts (1950-2015)

Storm Reports by Month

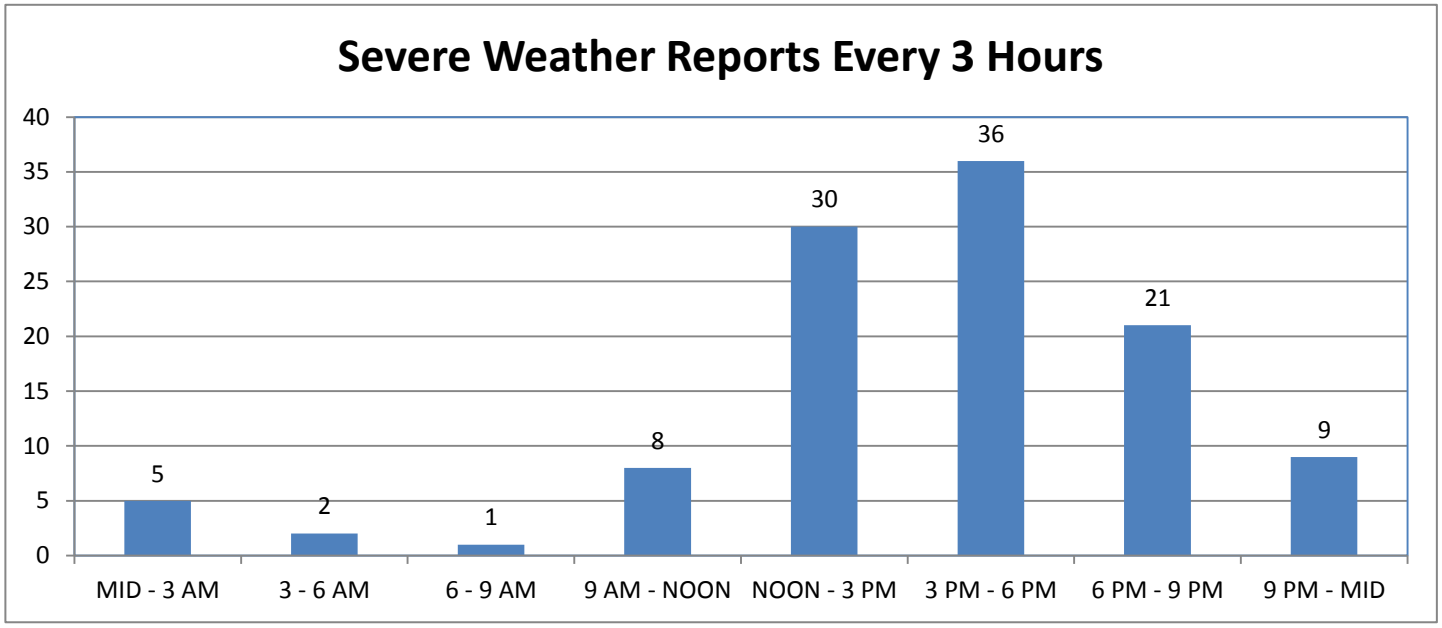
Severe weather has been documented in Kewaunee County from March through October. The earliest (and rare) event during the year occurred on March 29, 1998 when one inch hail was reported at Norman. The severe weather season begins in earnest in April and peaks in July. The warm season months from May through September account for eighty-seven percent of all severe weather reports. The convective season wanes quickly by September. The latest report of severe weather during the year occurred on October 17, 1984 when wind damage was reported one mile north of Algoma at 12:40 am. This report is very unusual considering the month and the time of day when it occurred.

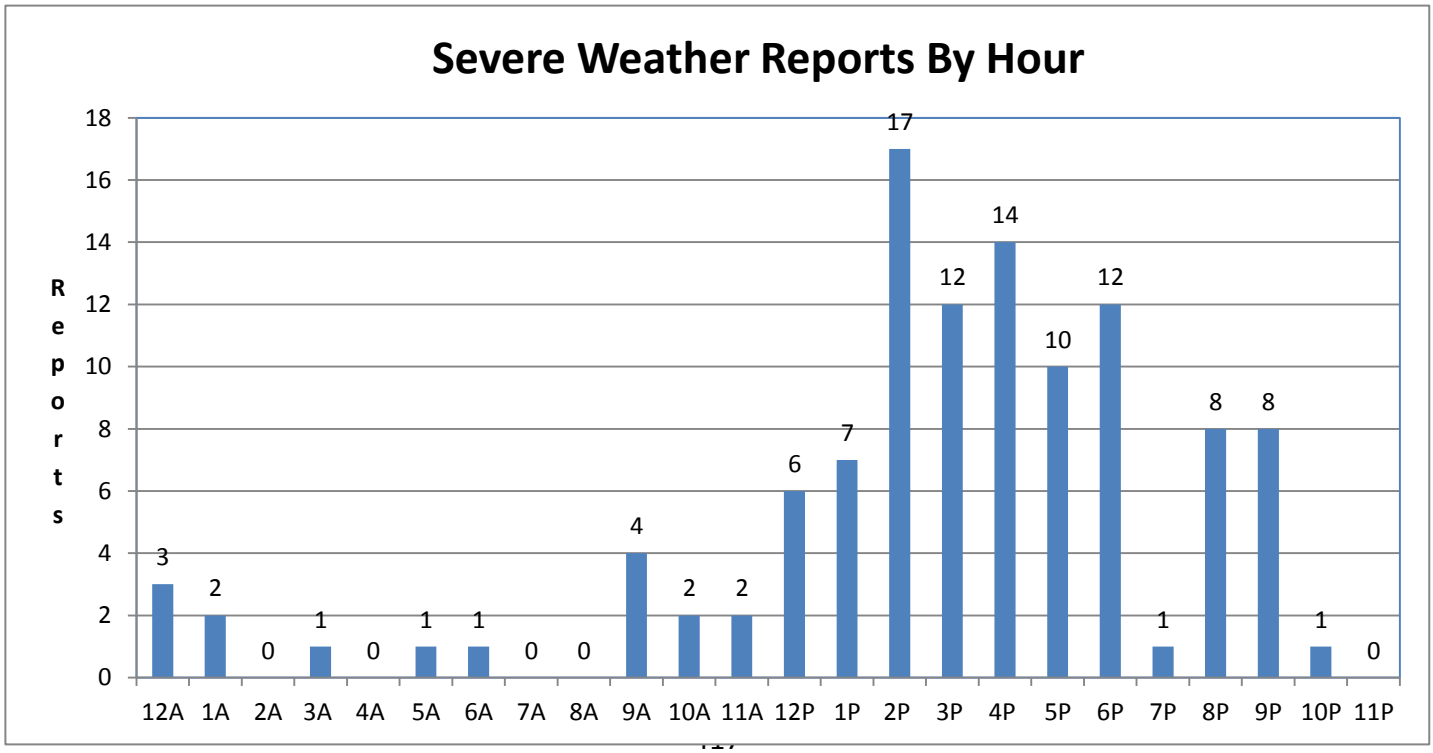


Kewaunee County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Kewaunee County. Seventy-two percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Kewaunee County, severe weather reports increased sharply after 1 pm and peaks between 2 pm and 7 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May through early September, there is another peak of severe weather that occurs between midnight and 6 am. In these events, thunderstorms that develop across the Dakotas and Minnesota move eastward into the county overnight. In 2013, there was a rare tornado that struck the county between 1205 and 1210 am local standard time from a half mile south southeast of Henrysville to one mile northeast of Stangelville.

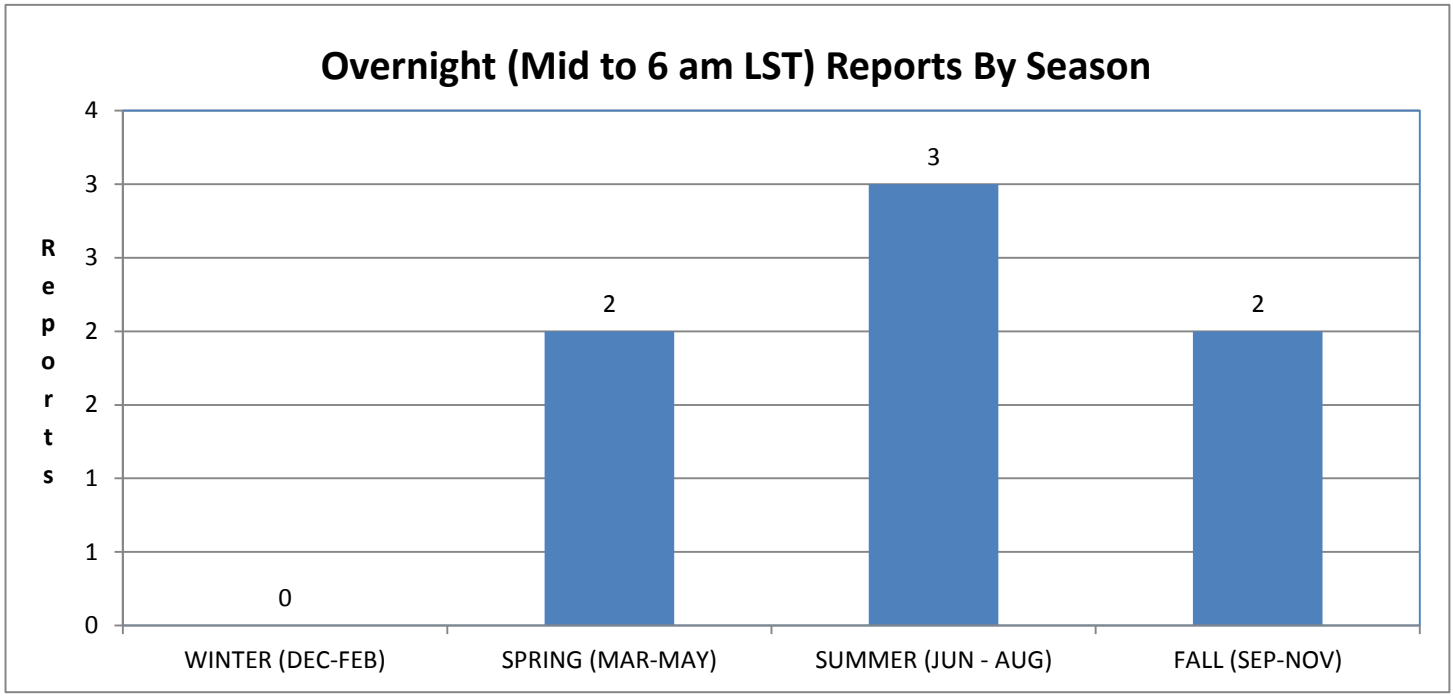




Kewaunee County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months only account for 42 percent of all overnight reports during the year. In most counties across north-central and northeast Wisconsin, the majority of overnight reports occur during the summer months. In 2013, there was a rare tornado that struck the county between 1205 and 1210 am local standard time from a half mile south southeast of Henrysville to one mile northeast of Stangelville.



Kewaunee County Severe Weather Facts (1950-2015)

Kewaunee County Tornadoes and Waterspouts

Since record keeping began in 1950, there have been eight documented tornadoes and four waterspouts in Kewaunee County and the adjacent coastal waters. Of the eight tornadoes and four waterspouts, there have been zero documented tornadoes of F/EF-3 or greater intensity. Two of the seven tornadoes have been rated F/EF-2 intensity (see table below). The other six tornadoes were rated F/EF-0 or F/EF-1. The last F/EF-2 tornado to strike Kewaunee County occurred on April 22, 1970 when the tornado touched down six miles southwest of Algoma. The tornado then travelled to about six miles northeast of Algoma. On this date, two other early season tornadoes were noted across the county. The last documented waterspout was recorded on August 9,
2012. On this date, two separate waterspouts touched down six miles south of Kewaunee between 12:10 pm and 12:35 pm local standard time. The last tornado to strike the county occurred on August 7, 2013 when an F/EF-1 tornado touched down a half mile south southeast of Henrysville to one mile northeast of Stangelville shortly after midnight. The most active year was 1970 with three tornadoes; followed by two waterspouts in 2012. Since 1950, tornadoes or waterspouts have touched down in nine different years. A tornado or waterspout is reported in Kewaunee County occurs on average every five and a half years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		7	2	1969	1620	3 SW Luxemburg - Ellisville	1
2		4	22	1970	2100-2110	1 N Casco - Rio Creek	2
3		4	22	1970	2110	6 SW to 4 SE Luxemburg	1
4		4	22	1970	2120-2130	Algoma - 6 NE Algoma	2
5		5	8	1978	1650	1.5 SW – 2.5 SE Luxemburg	1
6		4	24	1994	1525	3 S Luxemburg	0
7		6	29	1995	1105	10 SW Kewaunee	0
8		6	4	2005	1730	5 E Kewaunee (waterspout)	0
9		5	22	2011	1805	5 NE Algoma (waterspout)	0
10		8	9	2012	1210-1220	6 S Kewaunee (waterspout)	0
11		8	9	2012	1225-1235	6 S Kewaunee (waterspout)	0
12		8	6	2013	0005-0010	0.5 SSE Henrysville – 1 NE Stangelville	1

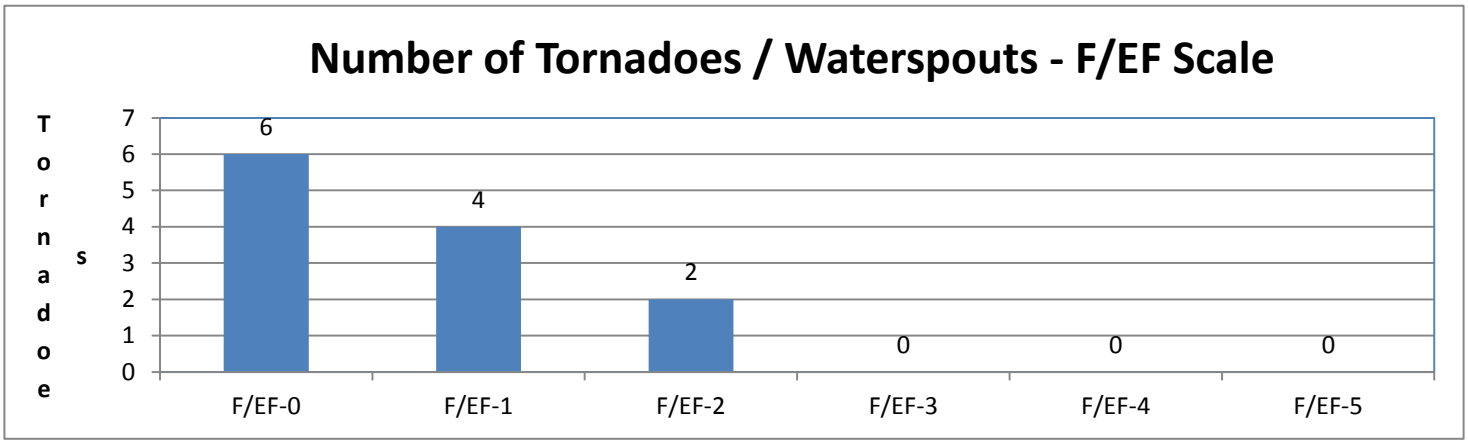
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

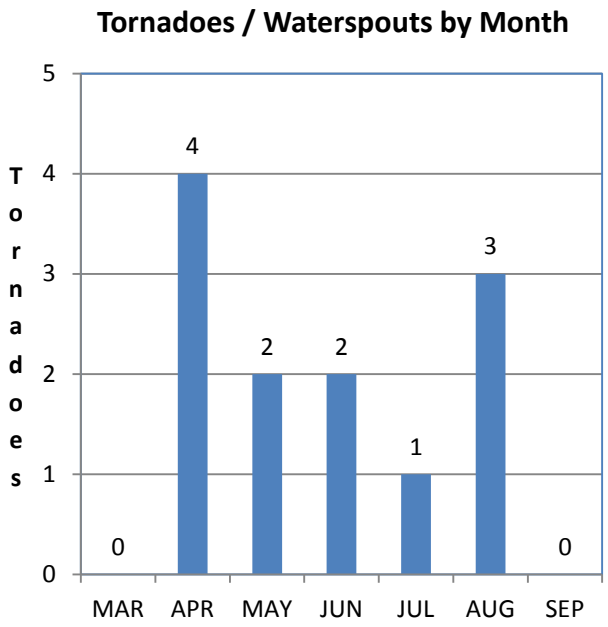
F/EF-2 or Greater Tornadoes in Kewaunee County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		4	22	1970	2100-2110	1 N Casco - Rio Creek	2
2		4	22	1970	2120-2130	Algoma - 6 NE Algoma	2

Additional tornado data can be found on the National Weather Service Green Bay webpage at: www.weather.gov/grb/prepare

Kewaunee County Severe Weather Facts (1950-2015)



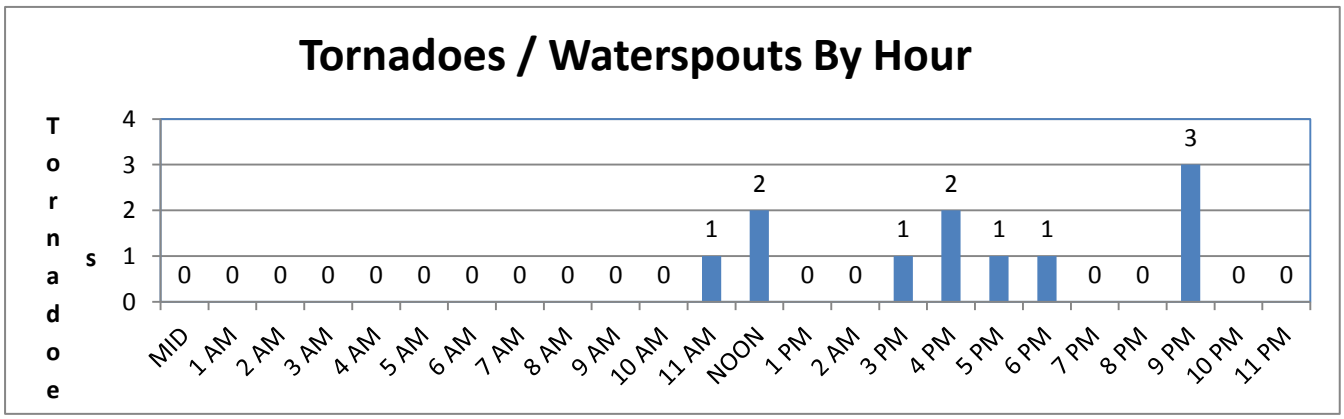


Tornadoes / Waterspouts by Month

Documented tornadoes or waterspouts have occurred in Kewaunee County from April through August. Surprisingly, April has the most document tornadoes of any month with four. The earliest documented tornado during the year occurred on April 22, 1970. On this date, three separate tornadoes touched down across the county. The first tornado touched down one mile north of Casco and moved to Rio Creek; while the second tornado developed in Algoma and moved northeast. The third tornado touched down six miles southwest of Luxemburg and travelled to four miles southeast of Luxemburg. The latest tornado on record during the year occurred on August 7, 2013 when an F/EF-1 tornado briefly touched down a half mile south southeast of Henrysville to one mile northeast of Stangelville shortly after midnight. In 2012, two waterspouts were sighted six miles south of Kewaunee on August 9th. This is the latest report of a waterspout during the year. The warm season months of May through August account for 67% of all tornado or waterspouts during the year.

Tornadoes / Waterspouts by Hour

In Kewaunee County, eight out of the twelve (sixty-seven percent) documented tornadoes and waterspouts have occurred between 3 pm and 10 pm local standard time. There have been no documented tornadoes between the 10 pm and 11 am local standard time.



Kewaunee County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March and April, large hail is the dominant weather event that is reported to the National Weather Service. For the remainder of the convective season, nearly six out of ten reports are high winds / wind damage compared to large hail. The only month that does not show a clear trend in the reports is July; which was nearly evenly split between large hail and strong winds/wind damage.

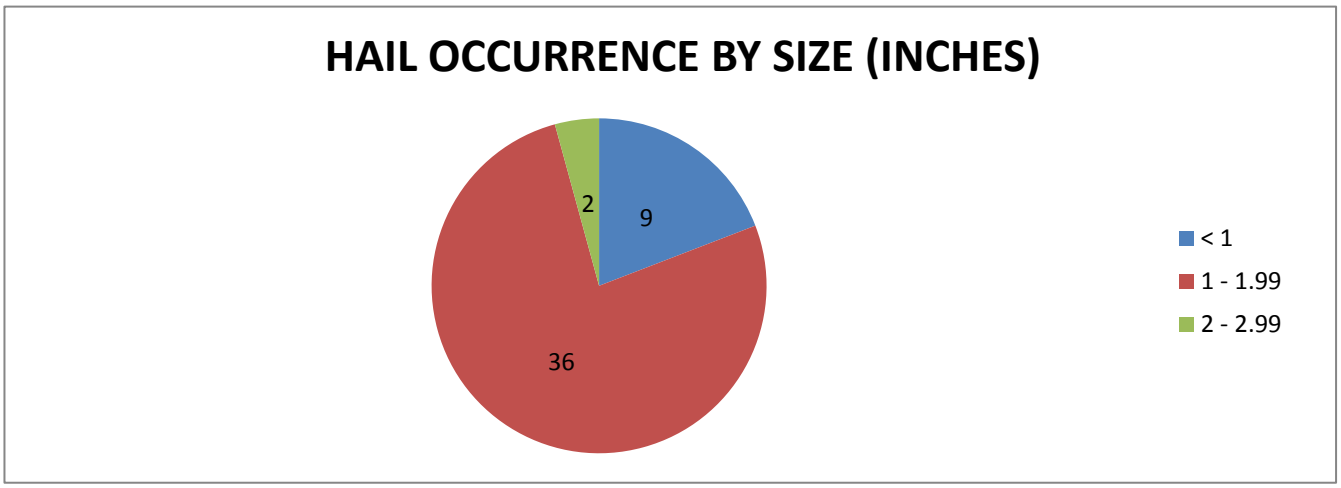
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	100	Jul	51.6	48.4
Feb	0.0	0.0	Aug	33.3	66.7
Mar	100	0.0	Sep	33.3	66.7
Apr	66.7	33.3	Oct	0.0	100.0
May	46.2	53.8	Nov	0.0	0.0
Jun	47.6	52.4	Dec	0.0	0.0
			Year	47.0	53.0

Large Hail in Kewaunee County

There have only been two documented reports of large hail two inches or larger in diameter across the county. The largest documented hail stone was 2.5 inches in diameter (tennis ball size hail) occurred three miles northwest of Algoma on June 17, 1992. The last occurrence of a hail stone two inches in diameter or greater occurred in Kewaunee on April 10, 2011 when two inch hail was reported. Overall, hail ranging in size from three quarters to one inch accounted for seventy-two percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for four percent of the total large hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		6	17	1992	1000	3 NW Algoma	2.50
2		4	10	2011	1537	Kewaunee	2.00



Kewaunee County Severe Weather Facts (1950-2015)

Kewaunee County Summary

In Kewaunee County, the severe weather season begins in earnest in April and wanes quickly by September. An unusual and early season tornado outbreak (3 tornadoes) occurred on April 22, 1970. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 4 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring. Damaging wind or wind damage will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Kewaunee County ranks 20th in the total number of storm reports and tied 17th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Kewaunee County Severe Weather Facts (1950-2015)

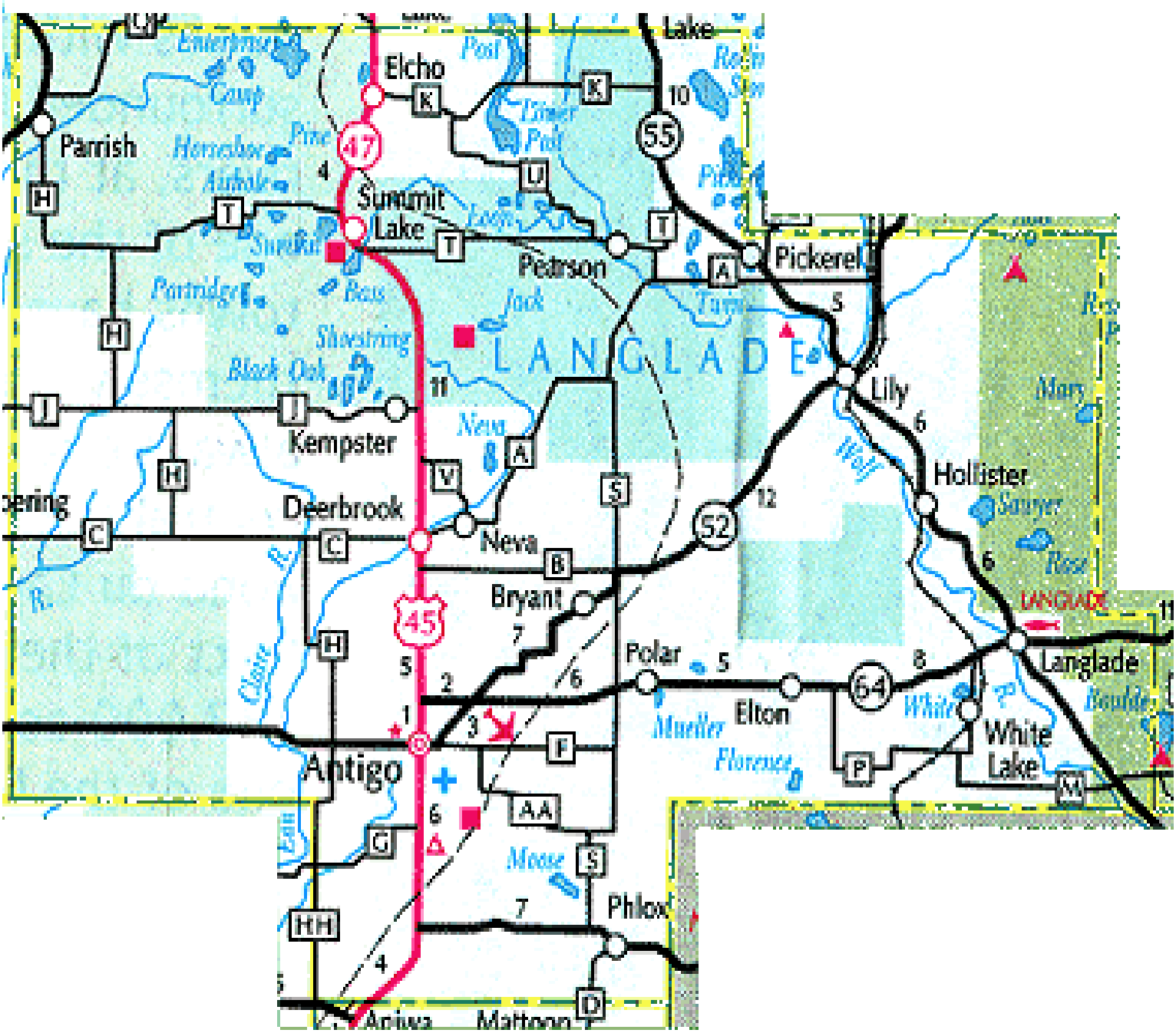
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

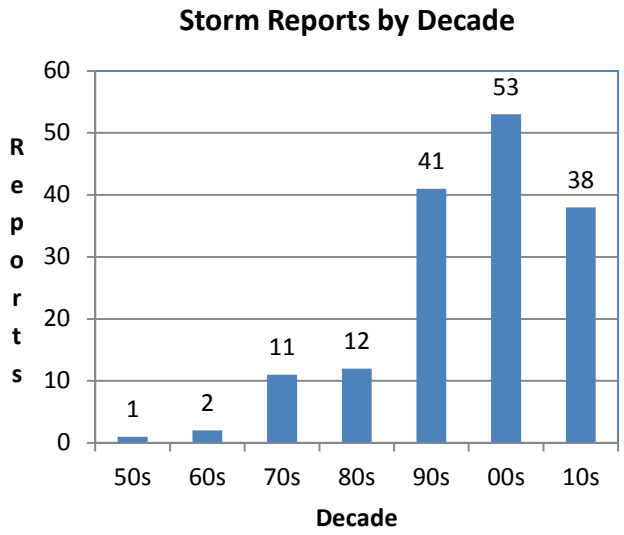
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Langlade County Severe Weather Facts (1950-2015)

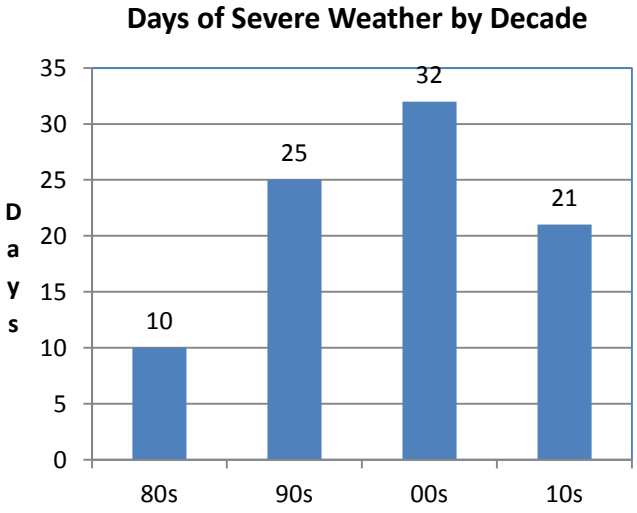


Langlade County Severe Weather Facts (1950-2015)



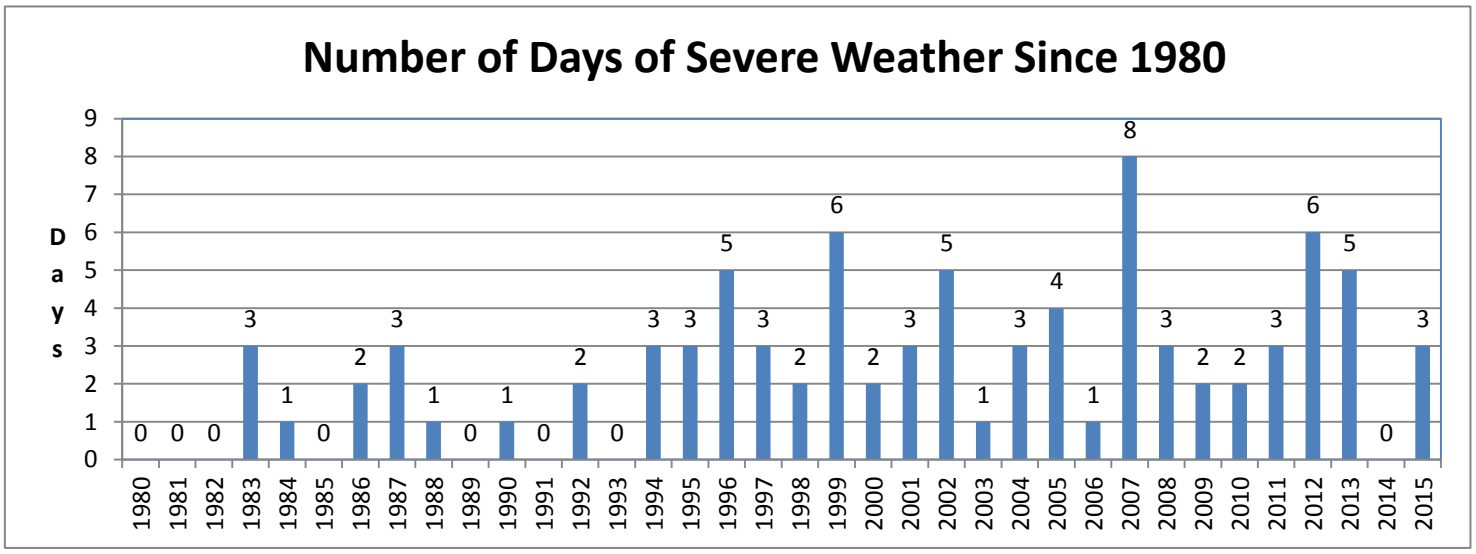
Storm Reports by Decade

Since 1950 there have been 158 documented reports of large hail, damaging winds and tornadoes across Langlade County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 341 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

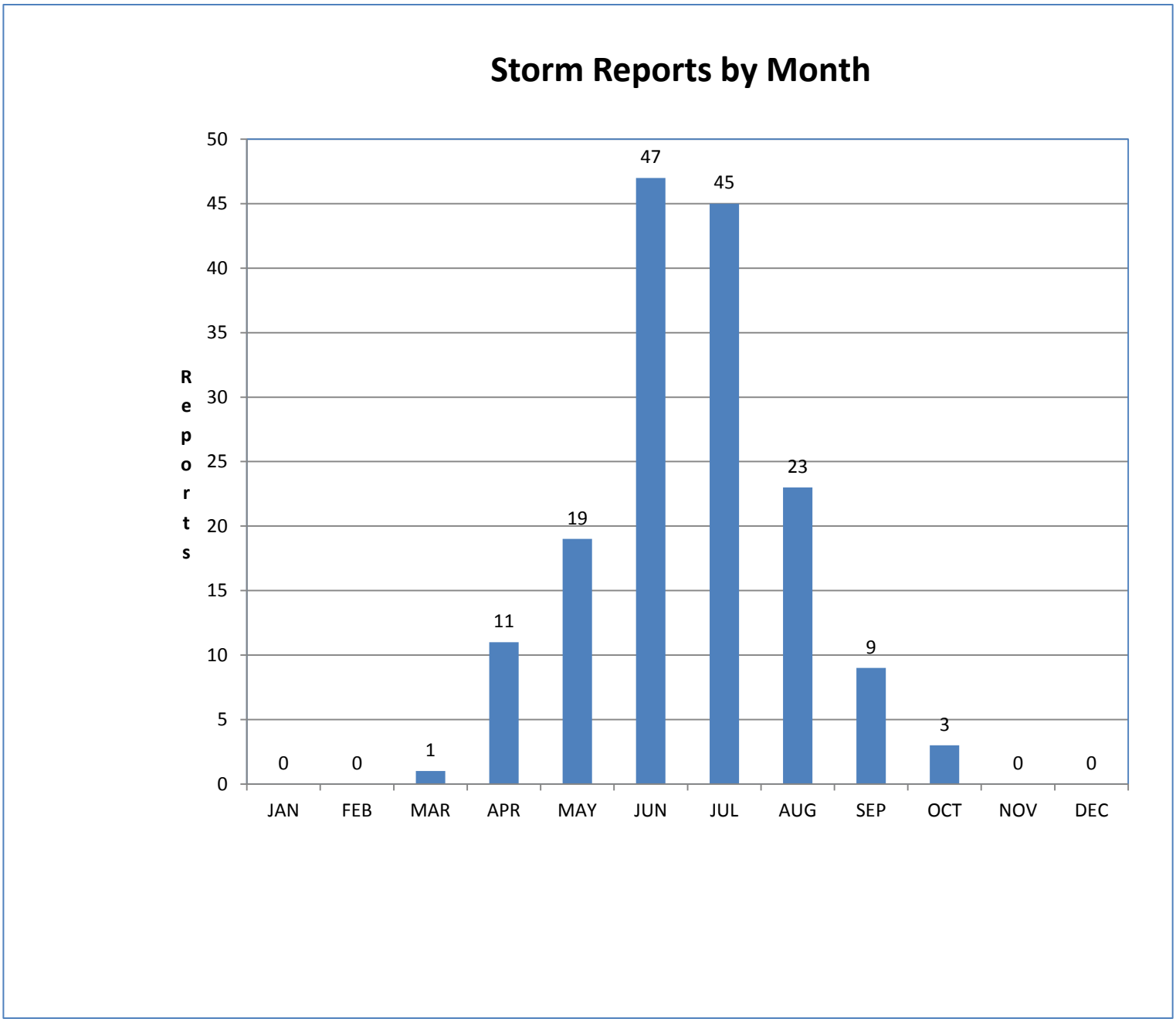
In order to address the impact of multiple reports for the same storm, the data was examined by the number of days of severe weather. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 210 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances and greater severe weather awareness. Since 2010, Langlade County averages 3.5 days of severe weather in a given year. The long term average from 1980-2015 is 2.4 days. The most active year was 2007 with eight days of severe weather; followed by six days of severe weather in 1999 and 2012 and five days in 1996, 2002 and 2013.



Langlade County Severe Weather Facts (1950-2015)

Storm Reports by Month

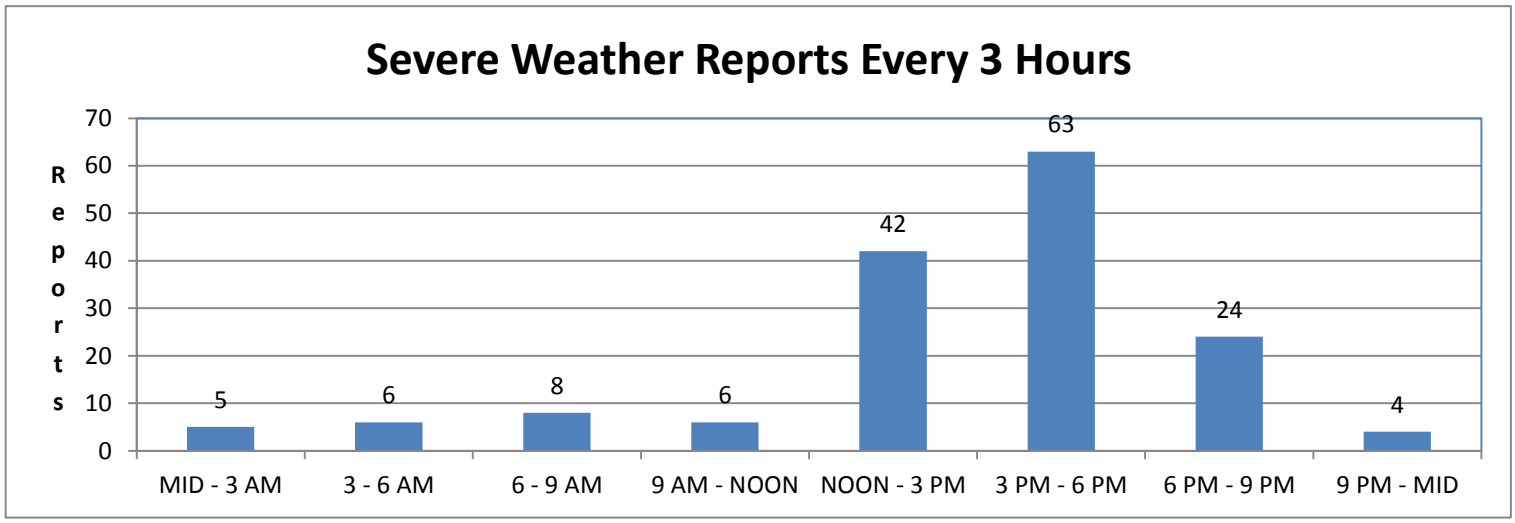
Severe weather has been documented in Langlade County from March through October. The earliest and rare event during the year occurred on March 25, 2007 when one and a half inch hail was reported at White Lake. The severe weather season begins in earnest in April. The convective season peaks during June and July and accounts for fifty-eight percent of all severe weather reports. The convective season wanes quickly in September. The warm season months (May-September) account for ninety-one percent of all severe weather reports during the year. The latest report of severe weather during the year occurred on October 25, 2012 when a gust estimated at 52 knots was reported 0.8 miles southeast of Pickerel.

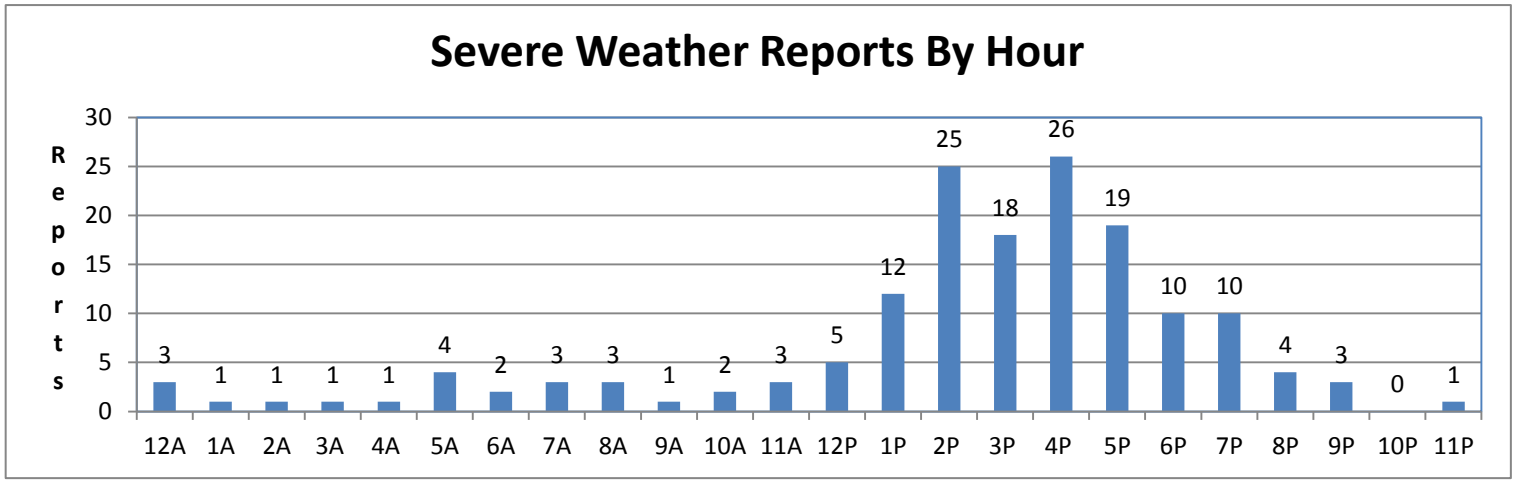


Langlade County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Langlade County. Seventy-nine percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Langlade County, severe weather reports increased sharply after 1 pm. The peak reporting time of severe weather reports were between 2 pm and 5 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May through August, there is another peak of severe weather that occurs around midnight. In these events, thunderstorms that develop across the Dakotas and Minnesota move eastward into the county.

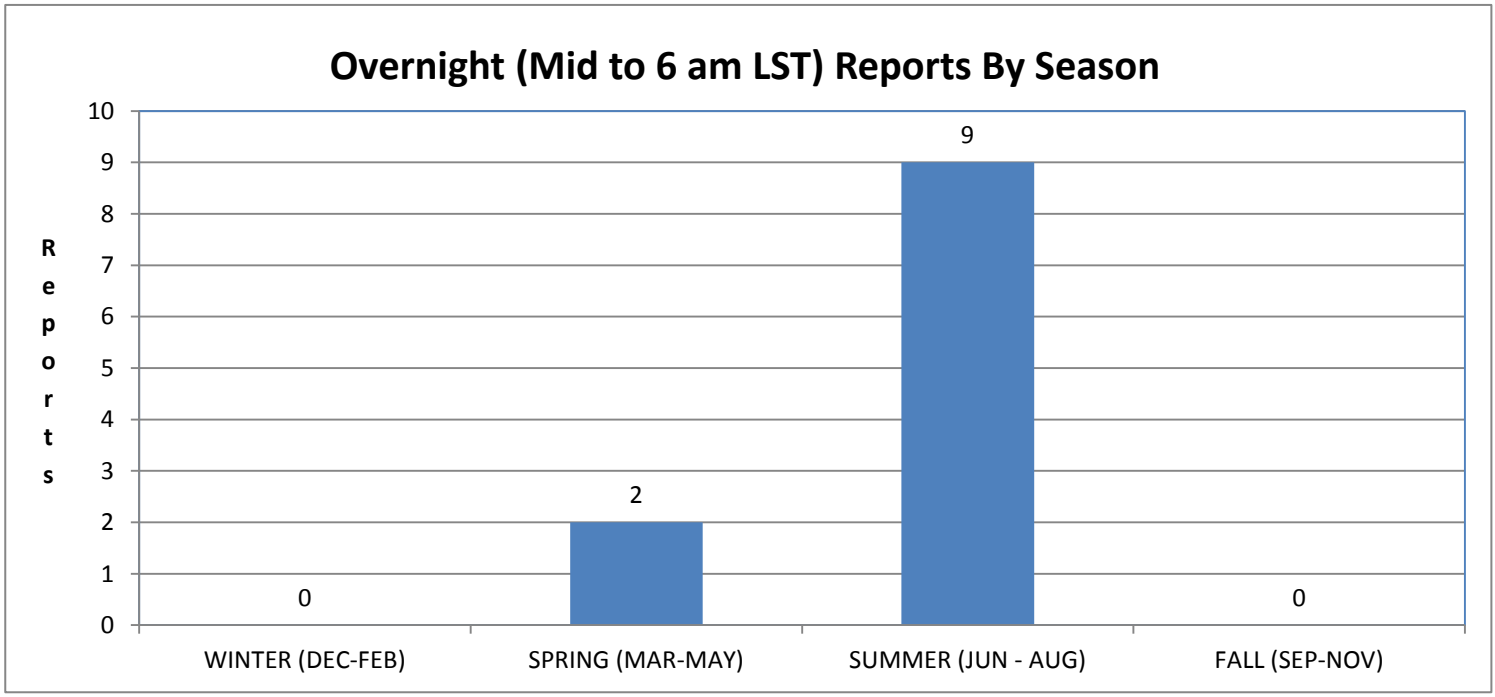




Langlade County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for nine out of eleven overnight reports (82%) during the year.



Langlade County Severe Weather Facts (1950-2015)

Photo taken by: Jerome Wahleithner 06/07/2007

Langlade County Tornadoes

Since record keeping began in 1950, there have been eight documented tornadoes that touched down across the county. Of the seven tornadoes, there have been two tornadoes documented at F/EF-3 or greater intensity. The first documented F/EF-3 to strike the county occurred on September 28, 1971 when a tornado touched down in Hewitt and travelled to near Middle Inlet. The most recent F/EF-3 occurred on June 7, 2007. On June 7th, severe thunderstorms erupted across Wood and Portage Counties and moved northeast in Langlade County. The F/EF-3 tornado was moving rapidly to the northeast at 50 mph, providing little time to take shelter before the storm hit. The most severe structural damage occurred 3.5 miles east of White Lake. The Bear Paw Outdoor Adventure Resort sustained severe damage. Nearly every building was damaged or destroyed, including a three story inn. One of the largest tornado outbreaks in April occurred on April 10, 2011 when an F/EF-1 tornado touched down five miles south of Parrish. The ten tornadoes on this date set a record for the most tornadoes on any single day across north-central and northeast Wisconsin. The last tornado to strike Langlade County occurred on July 9, 2013 when an EF-0 touched down between 10.8 miles south of Parrish to 3.1 miles west of Deerbrook.

Picture above: Satellite picture of the tornado track across northeast Wisconsin.

Picture above of damage at the Bear Paw Outdoor Adventure Resort, Photo by Phil Kurimski

Langlade County Severe Weather Facts (1950-2015)

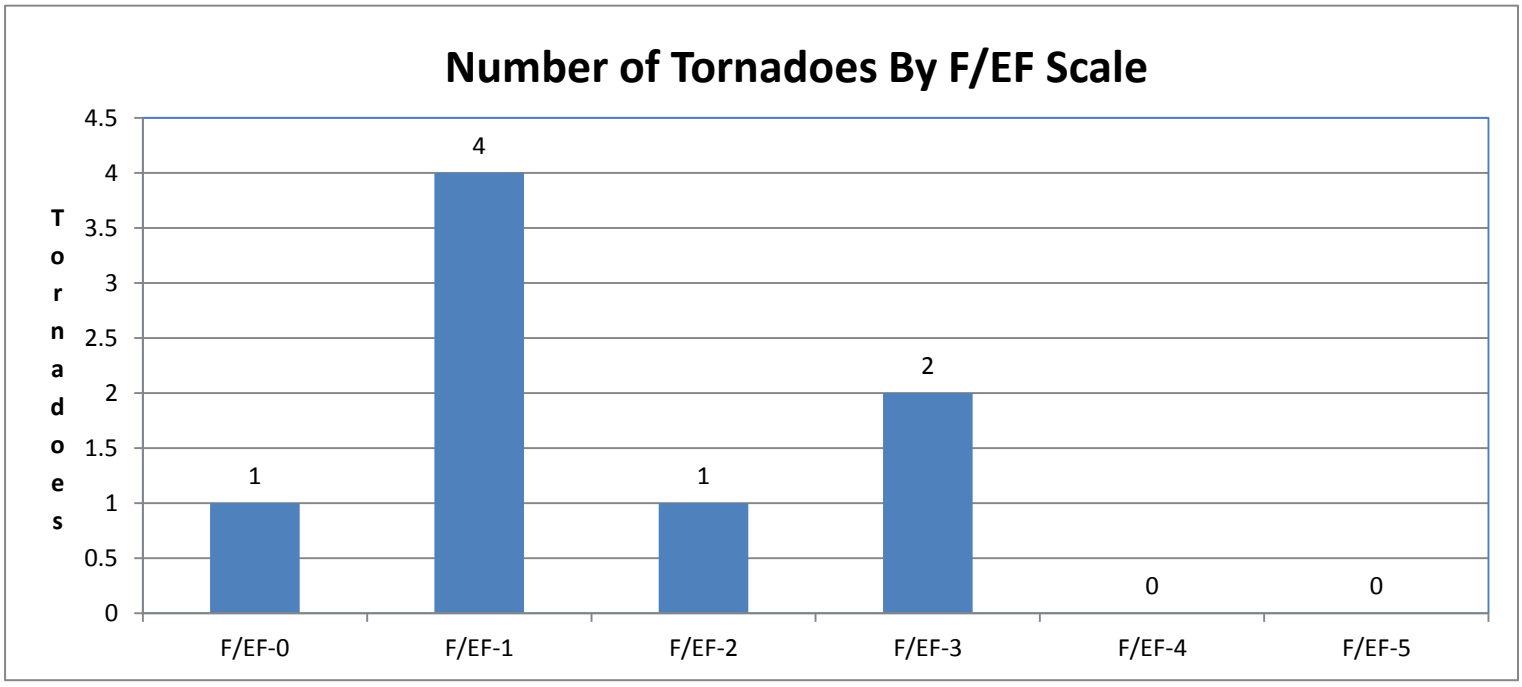
Langlade County Tornadoes

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	4	1959	1145	Deerbrook	1
2		9	28	1971	1600-1720	Hewitt - Middle Inlet	3
3		6	13	1976	2000-2010	2 W Hogarty - Elton	1
4		6	13	1976	2045-2100	Rural Langlade Co - Rural Lincoln County	1
5		4	27	1984	1450	4 NW Antigo	2
6		6	7	2007	1548-1558	3.7 S White Lake to 3.5 NNE Markton	3
7		4	10	2011	1750-1758	5 S Parrish	1
8		7	9	2013	1432-1456	10.8 S Parrish to 3.1 W Deerbrook	0

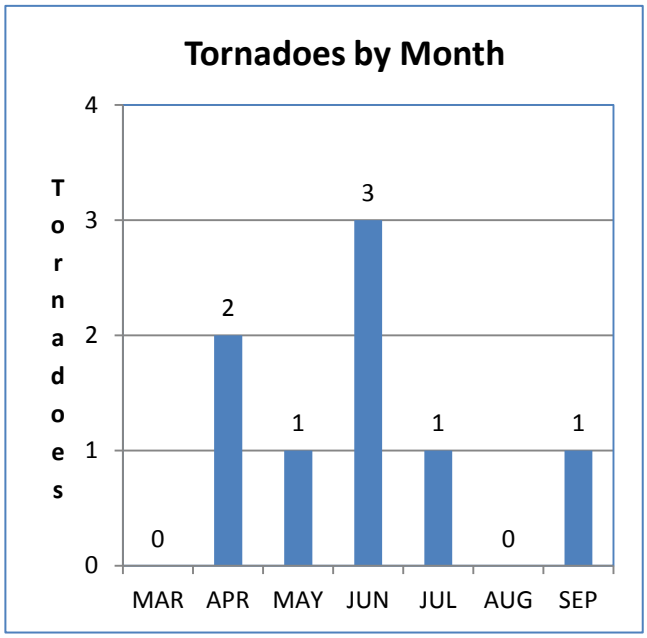
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

F/EF-2 or Greater Tornadoes in Langlade County

		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	28	1971	1600-1720	Hewitt - Middle Inlet	3
2		4	27	1984	1450	4 NW Antigo	2
3		6	7	2007	1548-1558	3.7 S White Lake to 3.5 NNE Markton	3



Langlade County Severe Weather Facts (1950-2015)

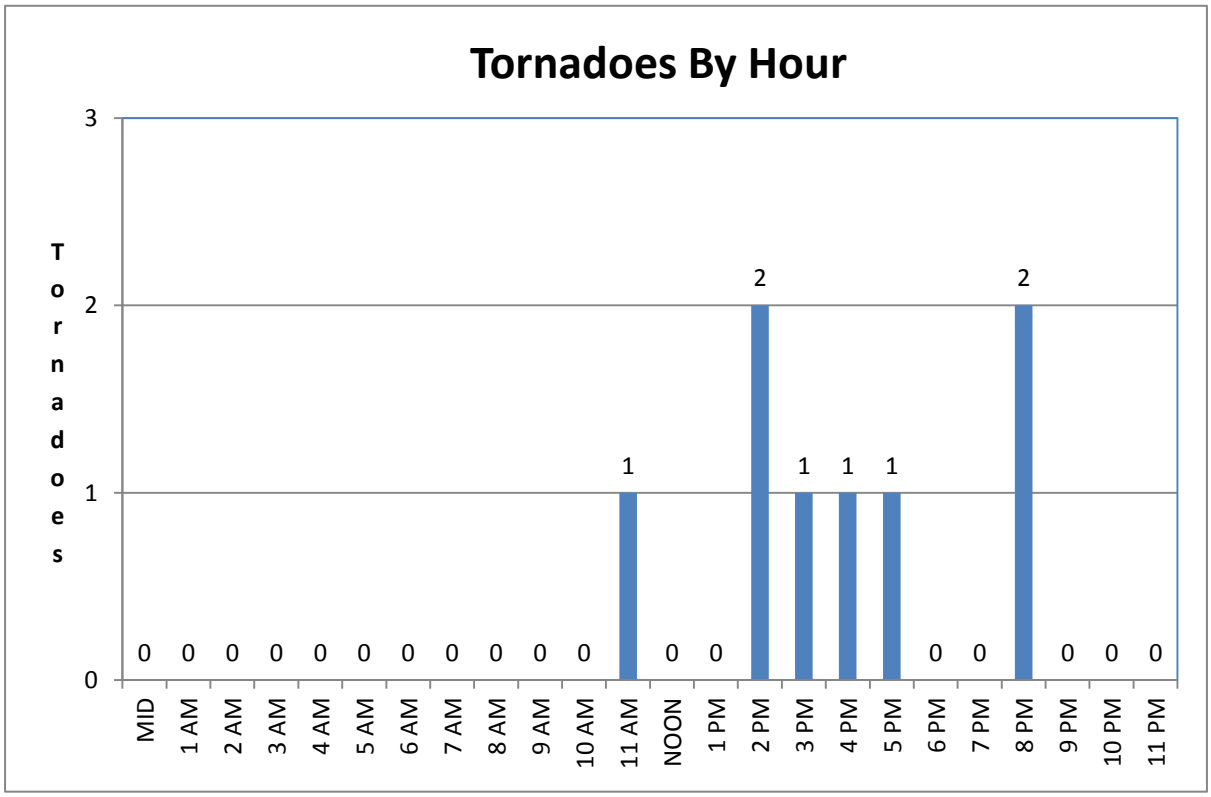


Tornadoes by Month

Documented tornadoes have occurred in April, May, June, July and September. In 2011, Langlade County experienced its earliest documented tornado at the beginning of the year when an F/EF-1 tornado touched down five miles south of Parrish on April 10th. The previous earliest documented tornado on record during the year occurred on April 27, 1984 when an F/EF-2 tornado touched down four miles northwest of Antigo. The months of April, May and June account for six of the eight tornado reports (75%) during the year. June was the most active month with 3 tornadoes while April was the 2nd most active month with two tornadoes. The latest tornado on record during the year occurred on September 28, 1971 when an F/EF-3 tornado touched down near Hewitt and travelled to near Middle Inlet. A tornado has touched down in seven separate years since 1950. On average, a tornado strikes Langlade County every eight years.

Tornadoes by Hour

In Langlade County, seven out of the eight (88%) documented tornadoes have occurred between 2 pm and 9 pm local standard time. There have been no documented tornadoes between the 9 pm to 11 am local standard time.



Langlade County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During the early spring and again later in the fall, large hail is the dominant weather event that is reported to the National Weather Service. During this period, the atmosphere is cold aloft to support large hail reaching the ground. The predominant severe weather type transitions to strong winds/wind damage by June. The month of July has the strongest ratio of over eight out of ten reports being strong winds/wind damage compared to large hail. Over the course of the year, nearly seven out of ten reports are strong winds/wind damage compared to nearly three out of ten reports of large hail.

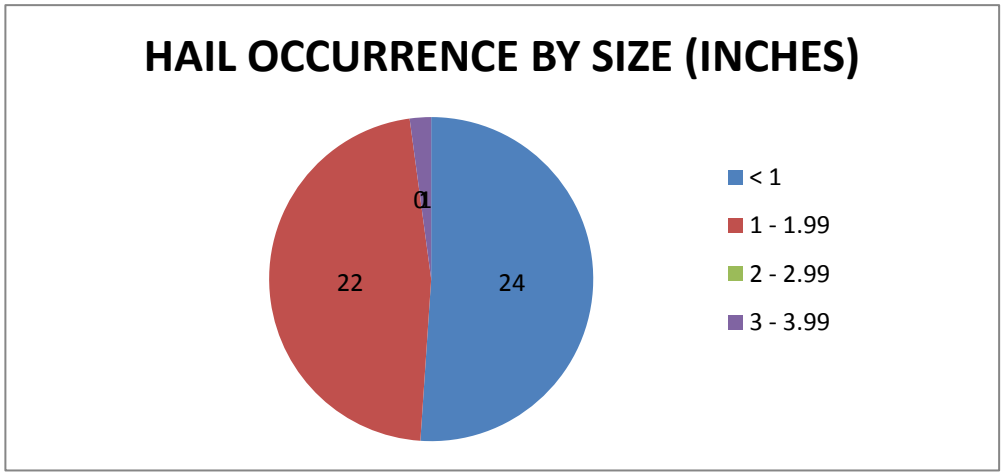
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	20.5	79.5
Feb	0.0	0.0	Aug	39.1	60.9
Mar	100	0.0	Sep	50.0	50.0
Apr	66.7	33.3	Oct	66.7	33.3
May	38.9	61.1	Nov	0.0	0.0
Jun	34.1	65.9	Dec	0.0	0.0
			Year	35.3	64.7

Large Hail in Langlade County

There has been one documented report of large hail over two inches in diameter across the county. The largest hail stone of three inches in diameter was documented five miles west of Langlade on June 7, 2007. Overall, hail ranging in size from three quarters to one inch accounted for sixty-six percent of the documented hail reports. Large hail reports of two inches or greater only accounted for two percent of the total hail reports.

Hail over 2 inches

Event		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		6	7	2007	1550	5 W Langlade	3.00



Langlade County Severe Weather Facts (1950-2015)

Langlade County Summary

In Langlade County, the severe weather season begins in earnest in May and wanes quickly by September. Early season tornadoes are possible in April and May, but the peak of the tornado season is in June. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 4 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or later in the fall. Damaging wind or wind damage will be the dominant severe weather report during the remainder of the convective season by a two to one margin over large hail. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Langlade County ranks 17th in the total number of storm reports and 19th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

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Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Langlade County Severe Weather Facts (1950-2015)

Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
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3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
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3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
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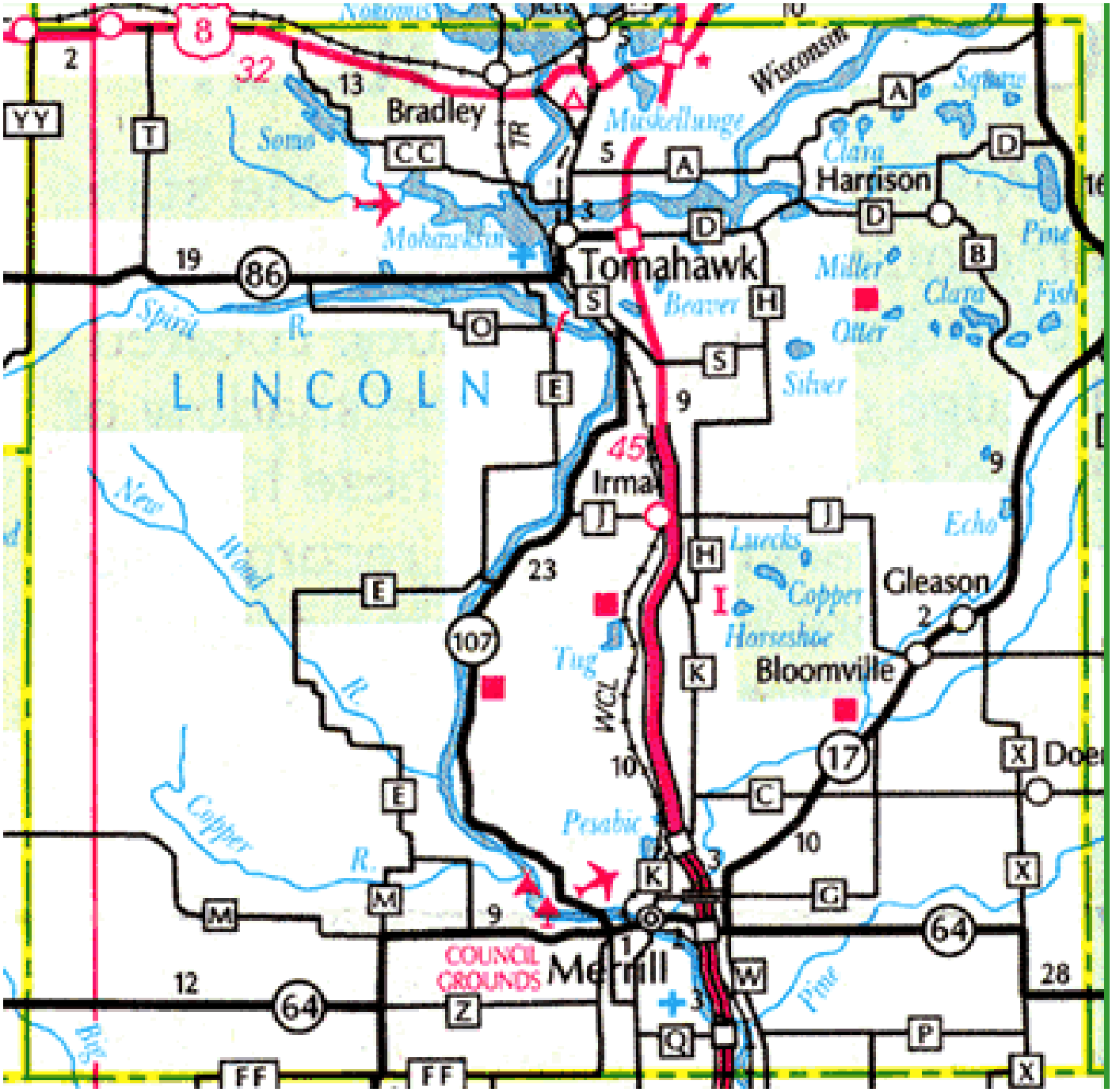
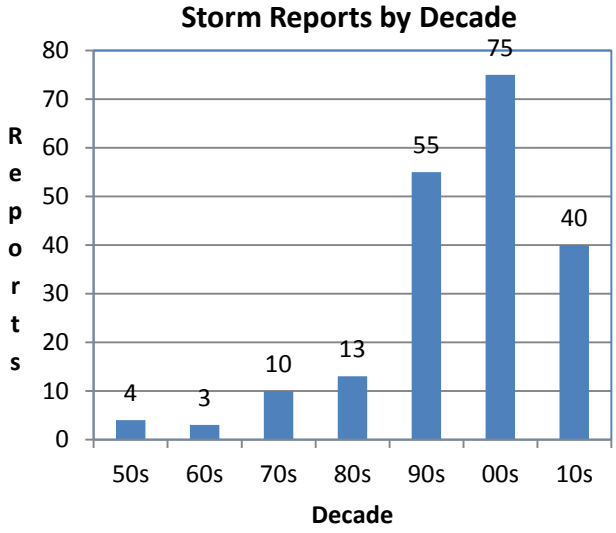
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Lincoln County Severe Weather Facts (1950-2015)

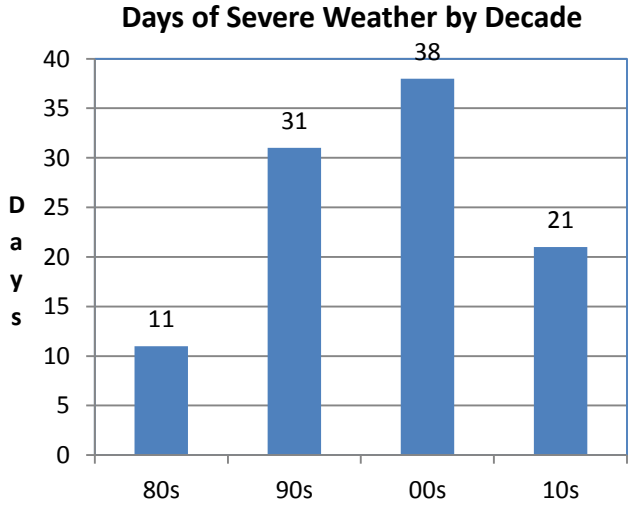


Lincoln County Severe Weather Facts (1950-2015)



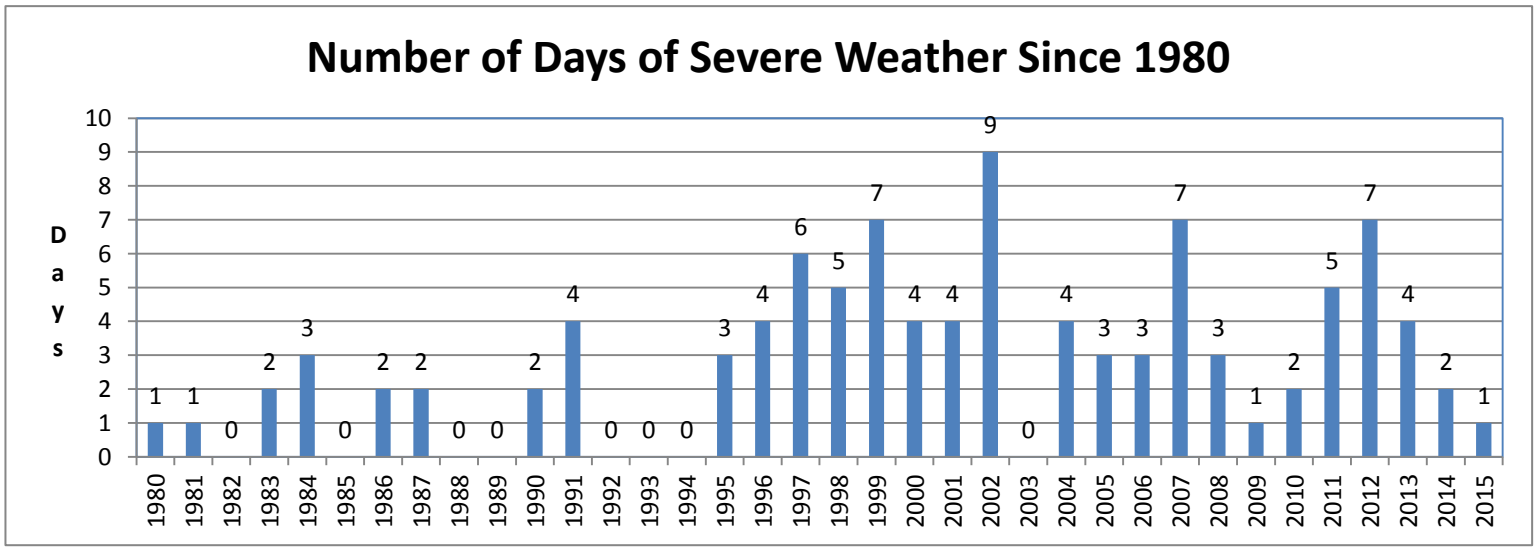
Storm Reports by Decade

Since 1950 there have been 200 documented reports of large hail, damaging winds and tornadoes across Lincoln County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 476 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

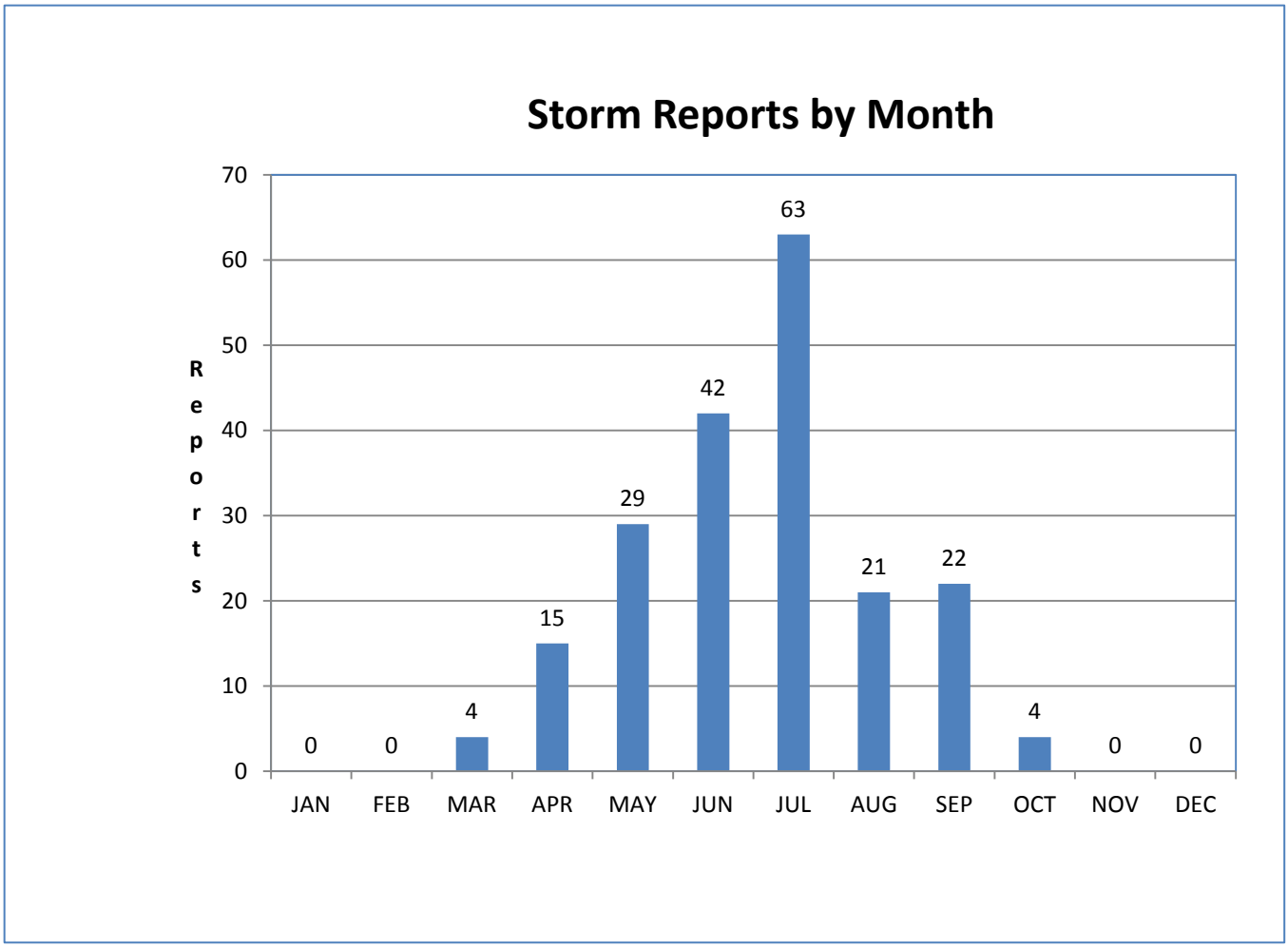
In order to address the impact of multiple reports for the same storm, the data was examined by the number of days of severe weather. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 245 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Lincoln County averages 3.5 severe weather days in a given year. The long term average from 1980-2015 is 2.8 days. The most active year was 2002 with nine days of severe weather; followed by seven days in 1999, 2007 and 2012 and six days in 1997.



Lincoln County Severe Weather Facts (1950-2015)

Storm Reports by Month

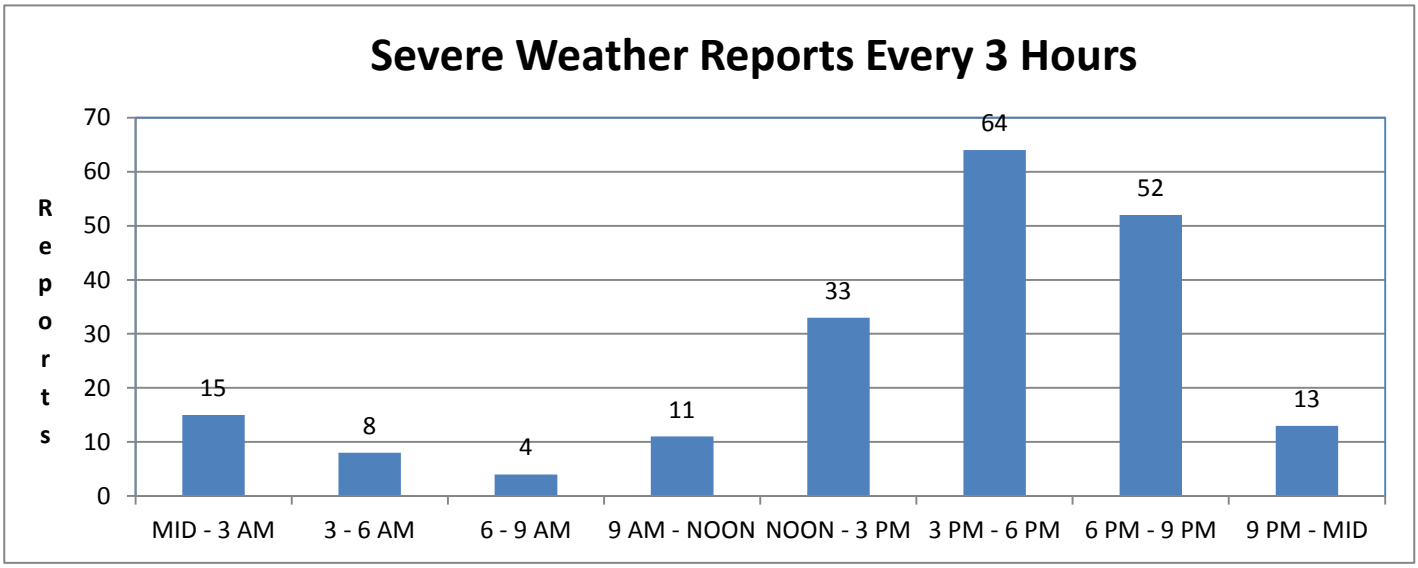
Severe weather has been reported in Lincoln County from March through October. The earliest severe weather report during the year occurred on March 29, 1998. On this date, one and a quarter inch hail fell and winds were estimated over 60 mph at Tomahawk; while a rare March tornado was reported three miles northwest of Tomahawk. The severe weather season begins in earnest in April. The convective season peaks in June and July and wanes quickly in September. The warm season months of May to September account for eighty-nine percent of all severe weather reports during the year. The latest report of severe weather during the year occurred on October 29, 2004 when wind damage was reported at Heafford Junction. In 2012, there was a late season report of wind damage on October 25th in the city of Merrill.

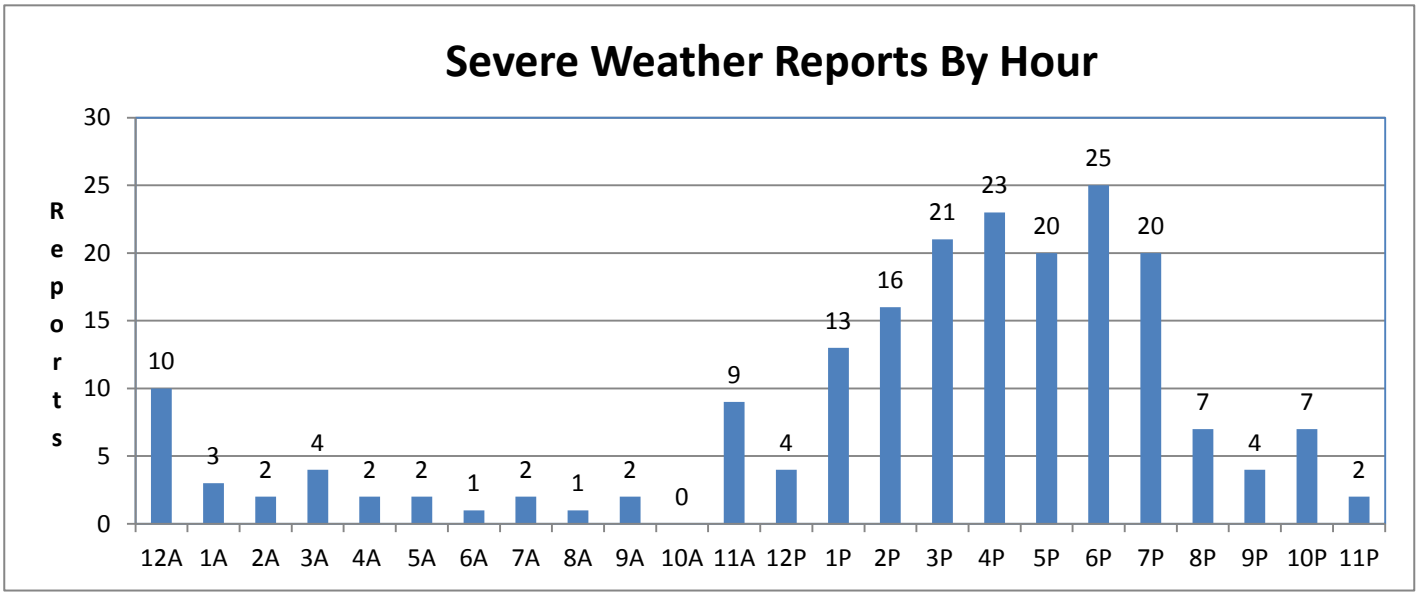


Lincoln County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Lincoln County. Seventy-three percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Lincoln County, severe weather reports increased sharply after 1 pm with activity peaking between 3 pm and 8 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May through August, there is another minor peak of severe weather that occurs between midnight and 5 am. The peak months for overnight convection are July and August when thunderstorms that develop across the Dakotas and Minnesota moves eastward into the county overnight.

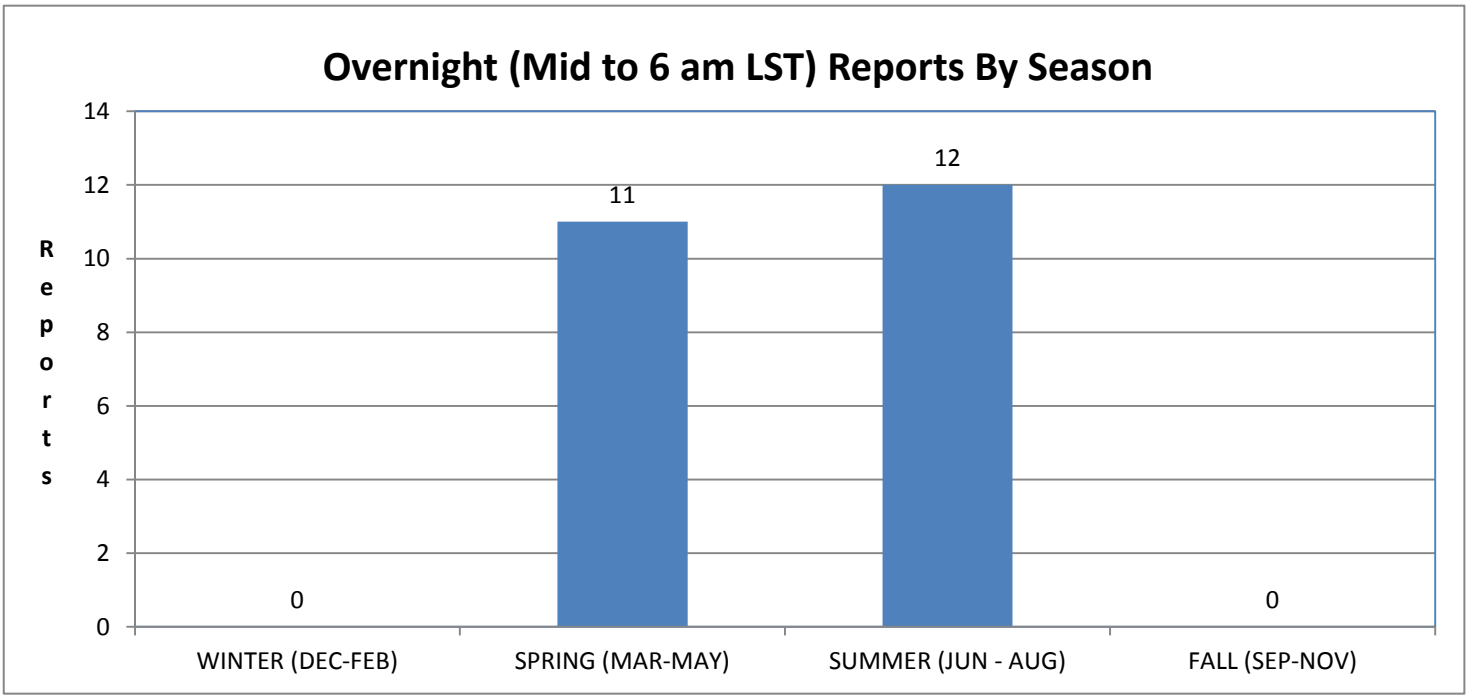




Lincoln County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The spring and summer months of May through August account for all of the overnight severe weather reports during the year.



Lincoln County Severe Weather Facts (1950-2015)

Lincoln County Tornadoes

Since record keeping began in 1950, there have been twenty-four documented tornadoes in Lincoln County. Of the twenty-four tornadoes, only one tornado has been documented F/EF-3 or greater intensity. On April 10, 2011, an F/EF-3 tornado (see images below) developed about 2 miles north of Hamburg at 5:08 CST pm and moved northeast into Lincoln County at 5:10 pm CST. Pine trees were uprooted and large branches were broken in the path of the storm. One house sustained damage to its siding and several barns were blown down or lost their roofs in Marathon County. The tornado was rated an F/EF-0 in Marathon County. The average width of the tornado in Marathon County was 100 yards. The tornado reached F/EF-3 intensity on the north side of Merrill in Lincoln County at approximately 5:22 pm CST where 22 homes and 7 businesses were destroyed. Several homes lost nearly all exterior and some interior walls. In addition, 22 homes and one business sustained major damage, and 20 homes and four businesses sustained minor damage. A 67 year old male was thrown over 200 feet from his bedroom and suffered broken ribs, a ruptured spleen and a bruised lung. Another person sustained minor injuries. The tornado tore a path over 20 miles long in Lincoln County before dissipating. The maximum width of the tornado was six tenths of a mile (1050 yards) wide. The average width was about 400 yards. The tornado was one of ten tornadoes across north-central and northeast Wisconsin on this date. The April 10th outbreak was the largest tornado outbreak for a single day during the year across north-central and northeast Wisconsin.

Five tornadoes have been rated F/EF-2 intensity while eighteen tornadoes were rated an F/EF-0 or F/EF-1 intensity. The most active year was 2002 with five weak EF0 tornadoes and four tornadoes in 2004. Tornadoes were recorded in the county in four consecutive years between 1996 and 1999. There also have been zero tornado related deaths in the county. Since 1950, tornadoes have touched down in seventeen different years. A tornado strike in Lincoln County occurs on average about every two and a half years.

Photo by Julia Berg

Photo by Samual L Hall

Lincoln County Severe Weather Facts (1950-2015)

All Lincoln County Tornadoes

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	3	1955	1800	Irma	1
2		6	30	1958	1730	1 NW Gleason	2
3		9	3	1961	1700	12 W Merrill	1
4		7	24	1962	1700	Corning	2
5		6	26	1969	1700	2 SE Tomahawk - Pelican Lake	1
6		9	28	1971	1415-1605	19 W Merrill - Merrill	2
7		6	13	1976	2045-2100	9 E Merrill to 11 NW Antigo	1
8		6	16	1979	1530-1545	0.5 S Irma	1
9		6	14	1991	1155	8 WNW Merrill	1
10		7	18	1996	1620-1630	1.5 SW - 3 SSE Tomahawk	1
11		7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	2
12		3	29	1998	1928-1935	3 W - 3 N Tomahawk	0
13		5	5	1999	1630-1631	1 WNW Tomahawk	0
14		4	18	2002	1549	2 W Bradley	0
15		7	30	2002	1747-1750	10.5- 9.5 NW Merrill	0
16		7	30	2002	1808-1828	5 N - 9.5 NE Merrill	0
17		7	30	2002	1825	8.5 NE Merrill	0
18		9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	2
19		7	11	2004	1545	Irma	0
20		7	11	2004	1613	6 W Tomahawk	0
21		7	11	2004	1613	6 W Tomahawk	0
22		7	11	2004	1640	4 W Tomahawk	0
23		4	10	2011	1706-1741	2 N Hamburg – 1 SW Bloomville	3
24		7	9	2013	1359-1404	0.5 NE Schultz – 3.9 W Bloomville	0

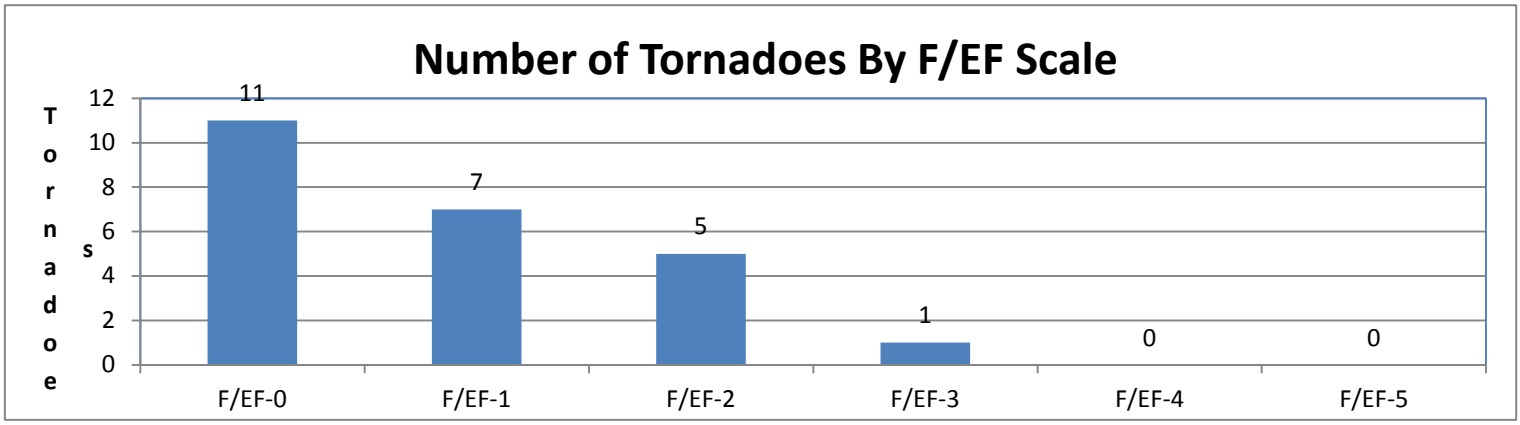
:

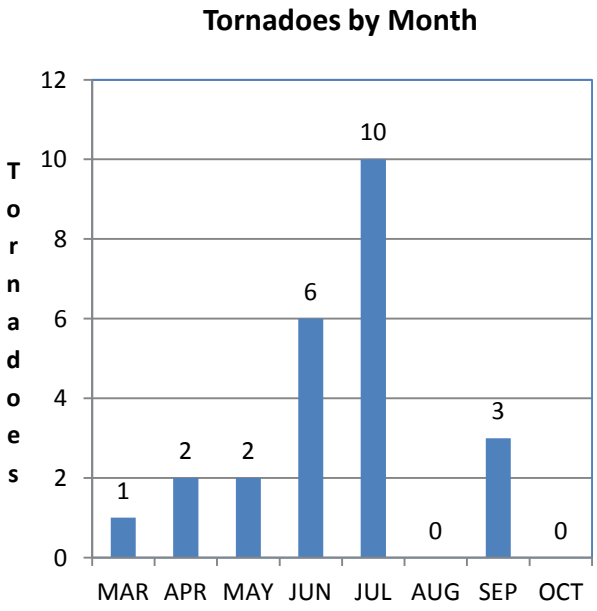
F/EF-2 or Greater Tornadoes in Lincoln County

		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
2		6	30	1958	1730	1 NW Gleason	2
4		7	24	1962	1700	Corning	2
6		9	28	1971	1415-1605	19 W Merrill - Merrill	2
11		7	16	1997	1438-1440	11.5 ESE - 12 SE Merrill	2
18		9	30	2002	1830-1835	8 W - 4.5 WNW Tomahawk	2
23		4	10	2011	1706-1741	2 N Hamburg – 1 SW Bloomville	3

Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate

Lincoln County Severe Weather Facts (1950-2015)

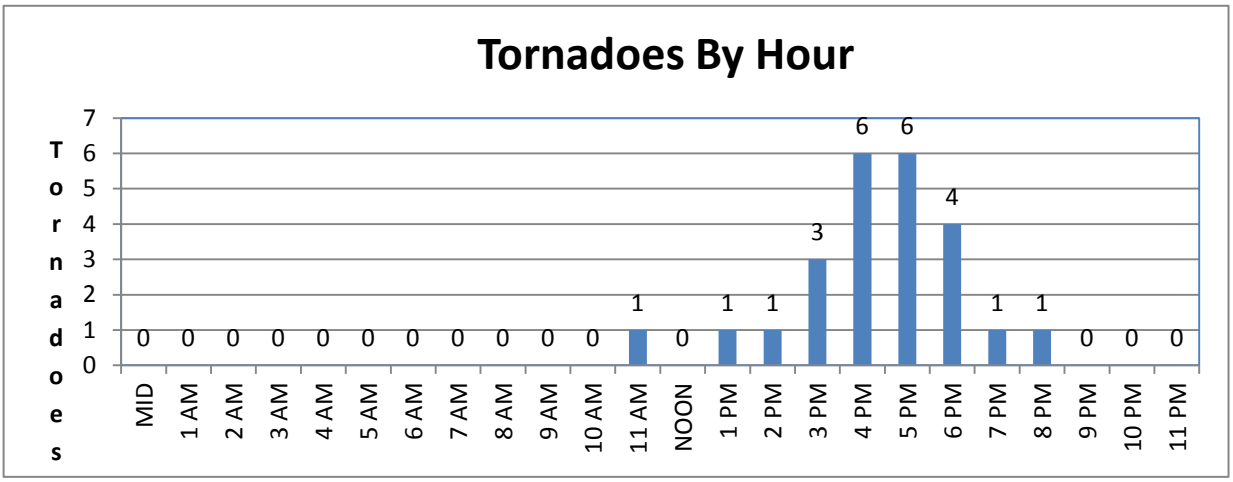




Tornadoes by Month

Documented tornadoes have occurred in Lincoln County in March, April, May, June, July and September. The earliest documented tornado during the year occurred on March 29, 1998 when a weak F/EF-0 tornado was noted three miles west and north of Tomahawk. Isolated tornadoes have been reported in April and May, but the peak of the tornado season is June and July. These two months account for sixty-seven percent of all tornado reports. The tornado season drops off sharply in August and September. The warm season months of May through September account for eighty-eight percent of the documented tornadoes during the year. Stronger cold fronts moving across the region is the most probable explanation for the increase in the number of tornadoes in September compared to August. The latest documented tornado during the year occurred on September 30, 2002. An F/EF-2 tornado touched down eight miles west of Tomahawk and then travelled northeast to four and a half miles west northwest of Tomahawk.

Twenty-three of the twenty-four tornadoes have occurred between 1 pm and 9 pm local standard time. No tornadoes have been documented between 9 pm and 11 am.



Lincoln County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During April, large hail is the dominant weather event that is reported to the National Weather Service. The atmosphere is very cold aloft to support large hail reaching the ground. For most of the remainder of the convective season, nearly six out of every ten reports are high winds and wind damage compared to large hail. Only June and September did not show any clear trends to which type of report was the dominant event.

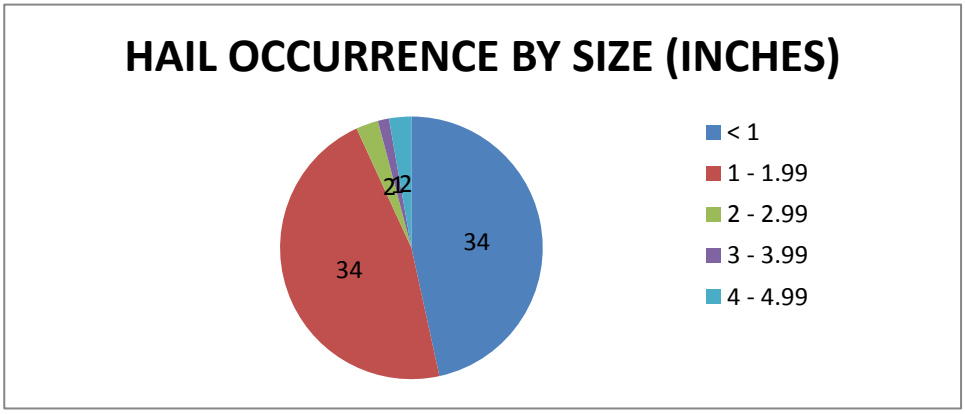
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	30.2	69.8
Feb	0.0	0.0	Aug	28.6	71.4
Mar	33.3	66.7	Sep	47.4	52.6
Apr	69.2	30.8	Oct	0.0	100.0
May	48.1	51.9	Nov	0.0	0.0
Jun	51.4	48.6	Dec	0.0	0.0
			Year	41.2	58.8

Large Hail in Lincoln County

There have been five documented reports of large hail over two inches in diameter across the county. The largest hail stone reported was four and a half inches in diameter, which occurred eight miles northeast of Merrill on July 16, 1997. Another hailstone four inches in diameter was reported just southwest of Kings on April 25, 2008. Overall, hail ranging in size from three quarters to one inch accounted for sixty-six percent of the documented reports. Large hail reports of two inches or greater only accounted for seven percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		6	29	1974	1935	Tomahawk	2.50
2		7	16	1997	1415	8 NE Merrill	4.50
3		4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	3.00
4		4	25	2008	1750	0.8 SW Kings	4.00
5		8	2	2015	0005	8.8 WNW Corning	2.00



Lincoln County Severe Weather Facts (1950-2015)

Lincoln County Summary

In Lincoln County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring. Damaging wind or wind damage will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Lincoln County ranks 13th in the total number of storm reports and 5th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

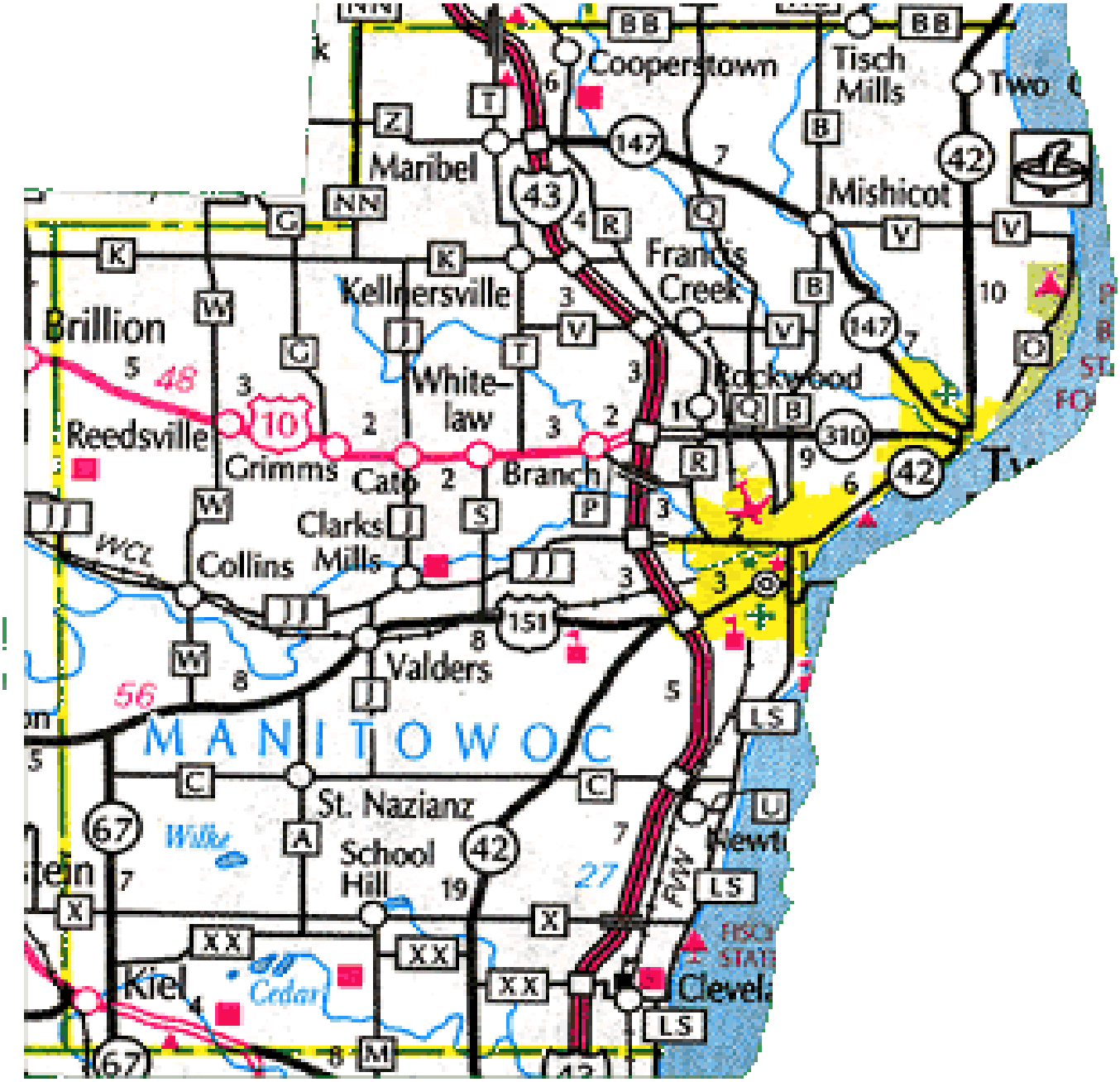
Lincoln County Severe Weather Facts (1950-2015)

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

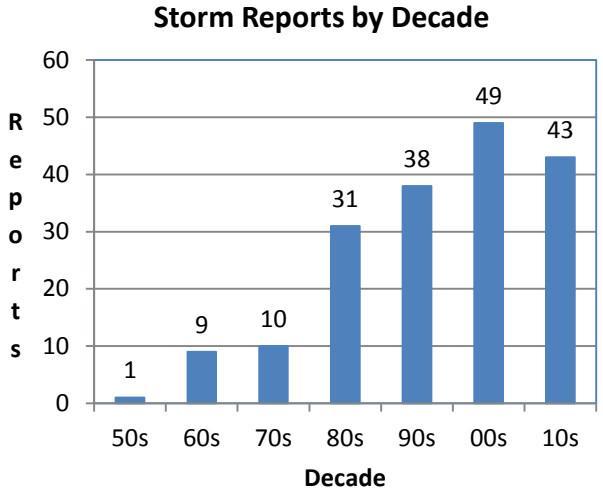
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Manitowoc County Severe Weather Facts (1950-2015)

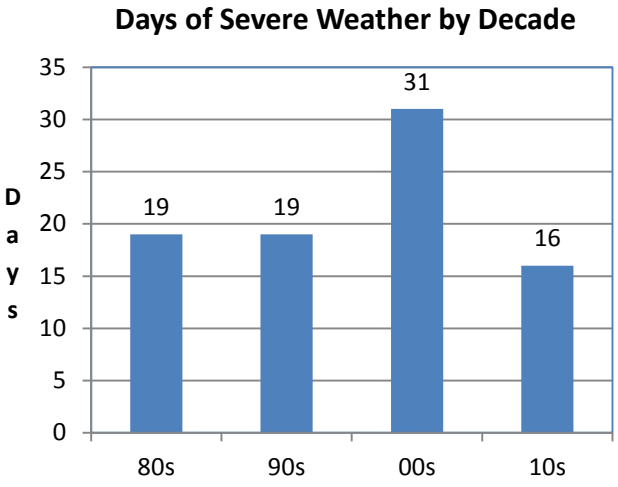


Manitowoc County Severe Weather Facts (1950-2015)



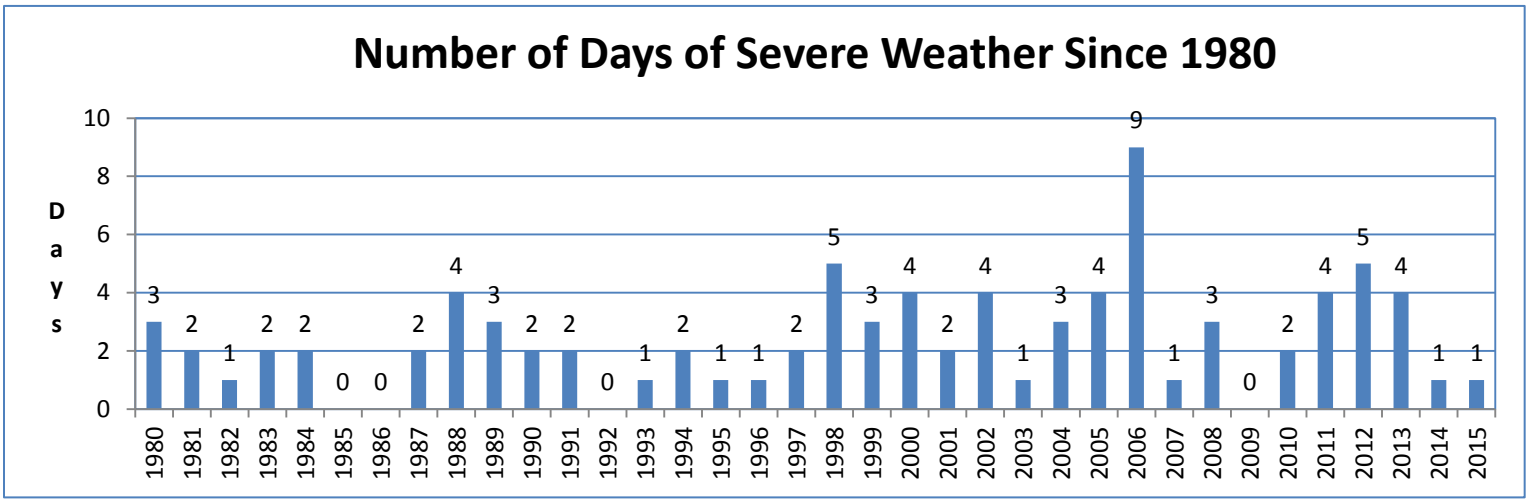
Storm Reports by Decade

Since 1950 there have been 181 reports of large hail, damaging winds and tornadoes across Manitowoc County (see graph to the left). The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 58 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Severe Weather Days by Decade

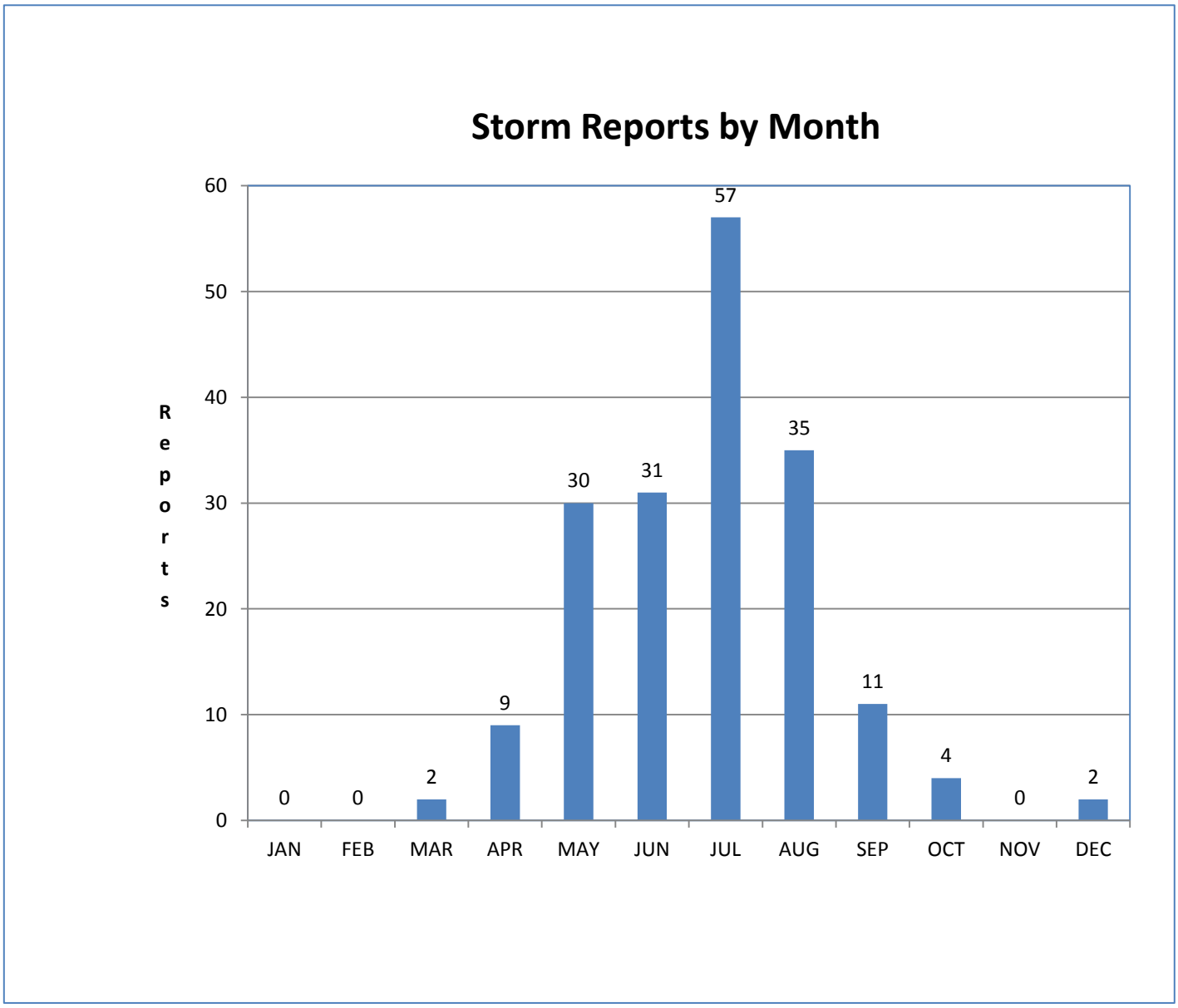
In order to address the impact of multiple reports for the same storm, the data was examined by the number of days of weather. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 63 percent in the number of days of severe weather from the 1980s to the 2000s (see graph to the left). This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Manitowoc County averages 2.7 days of severe weather in a given year. The long term average from 1980-2015 is 2.4 days. The most active year was 2006 with nine days of severe weather; followed by five days in 1998 and 2012.



Manitowoc County Severe Weather Facts (1950-2015)

Storm Reports by Month

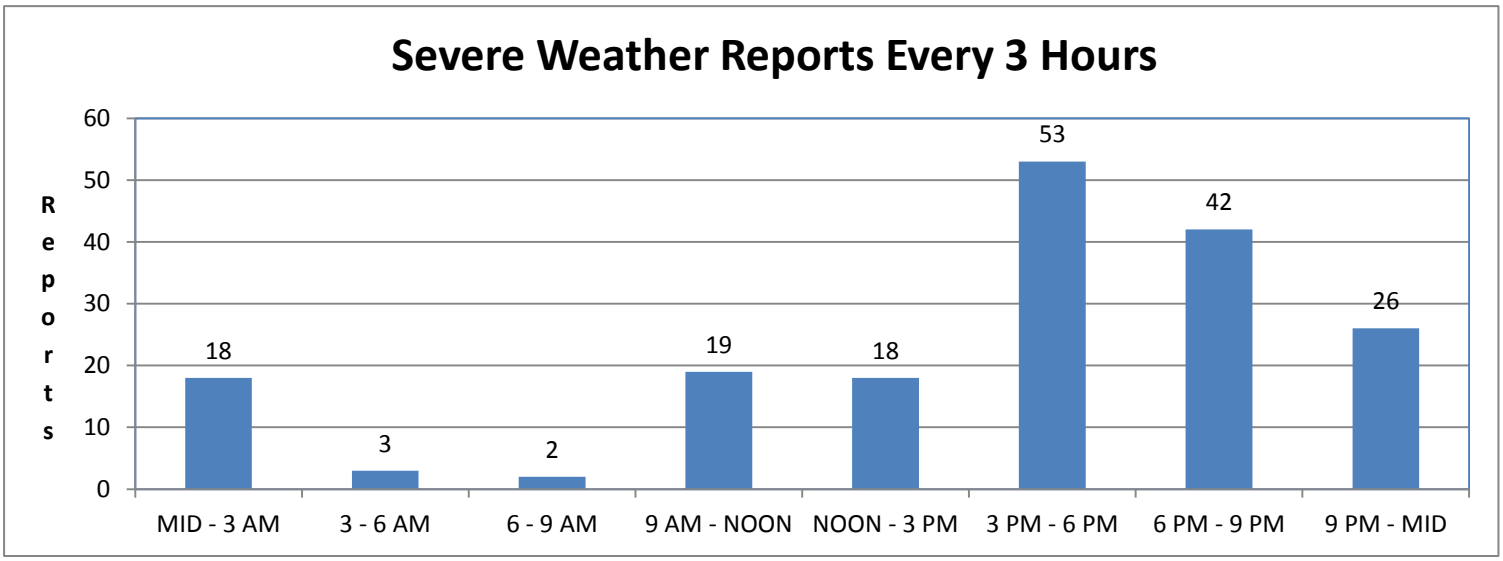
Severe weather has been documented in Manitowoc County from March through October with a rare out of season report in December. The earliest documented report of large hail during the year occurred on March 29, 1998 when three quarter inch hail was reported at Cooperstown. The severe weather season begins in earnest in May, which is about a month later than central Wisconsin. In most instances the colder waters of Lake Michigan produces a stable layer, which weaken storms as they approach the county during the early spring. The heart of the convective season is June through August, which accounts for sixty-five percent of all severe weather reports. July is the peak month for severe weather and then quickly wanes by September. The warm season months from May through September accounted for 91 percent of all severe weather reports during the year. Isolated reports have been noted in September and October. The latest and very rare report during the year occurred on December 20, 1967. One inch hail was reported four miles west of St. Nazianz on this date.

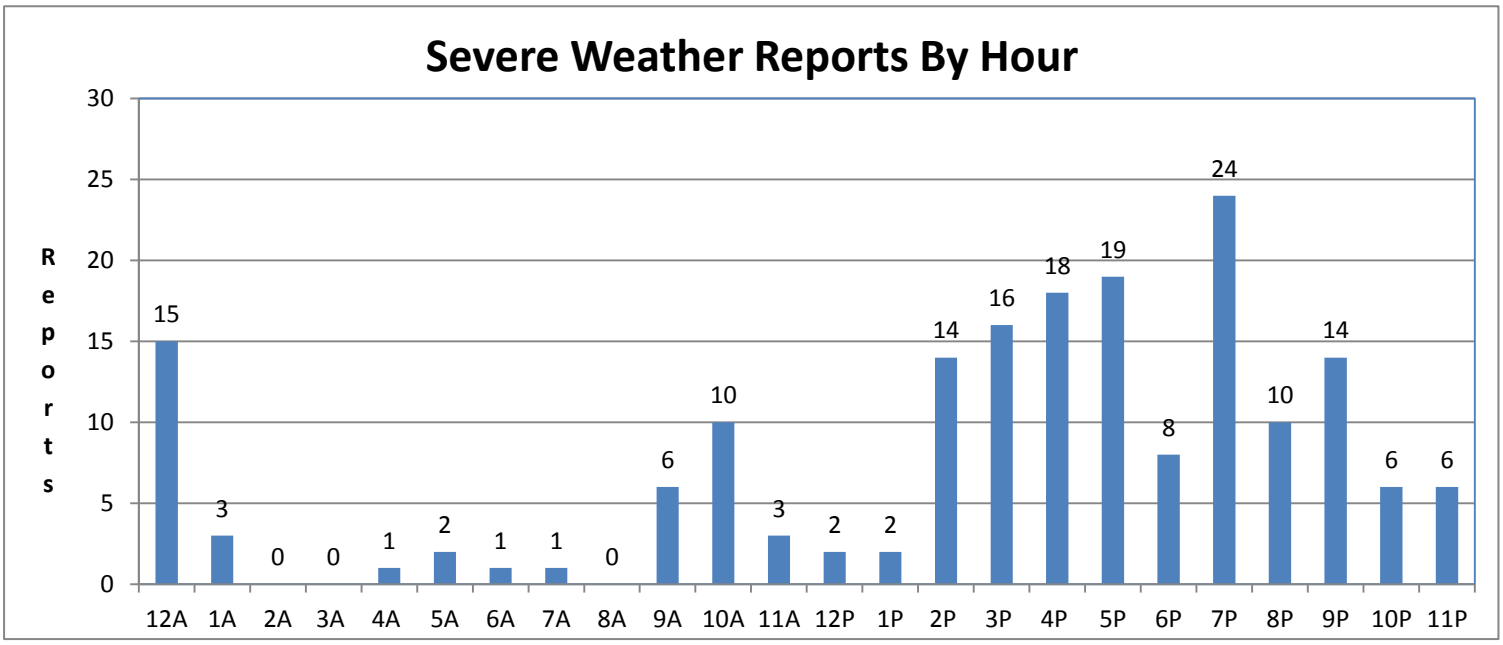


Manitowoc County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Manitowoc County. Sixty-one percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Manitowoc County, severe weather reports increased sharply after 2 pm with a peak between 3 pm and 5 pm another peak between 7 pm to 8 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May through August, there was another minor peak in activity around midnight. In these events, severe thunderstorms develop across Minnesota and western Wisconsin move eastward into the county around midnight.

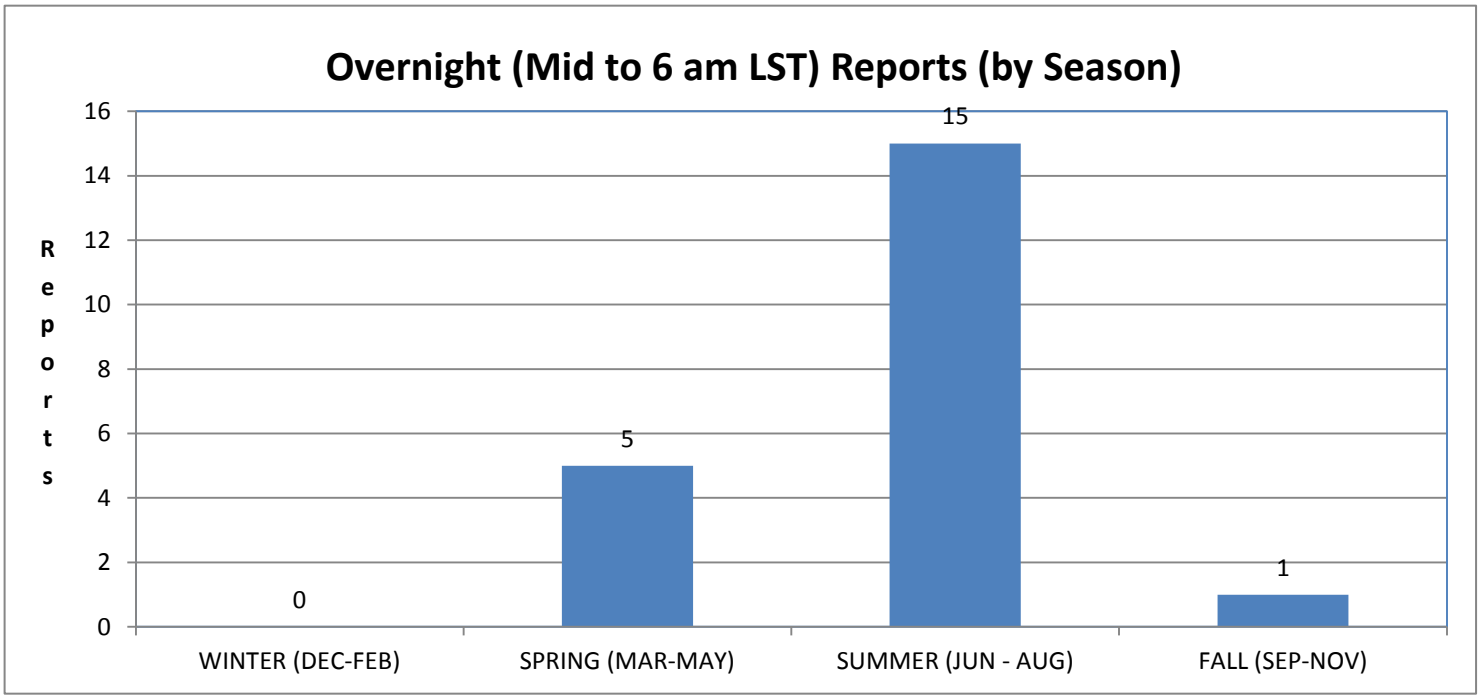




Manitowoc County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months (June through August) account for 71 percent off all overnight reports of severe weather during the year.



Manitowoc County Severe Weather Facts (1950-2015)

Manitowoc County Tornadoes

Since record keeping began in 1950, there have been twenty documented tornadoes in the county. Of the twenty tornadoes, only one tornado has been rated F/EF-3 or greater. An F/EF-4 tornado touched down three miles northwest of Maribel and moved to a half mile west of Cooperstown on July 5, 1994. Four tornadoes were rated F/EF-2 intensity see table below with fifteen tornadoes rated at F/EF-0 or F/EF-1. The most active years were 1967, 1980, 1994 and again in 2004 with two tornadoes. A tornado was reported in the county in three consecutive years from 1978 to 1980 and again from 1987 to 1989. Since 1950, tornadoes have touched down in sixteen different years. A tornado strike in Manitowoc County occurs on average about every three years.

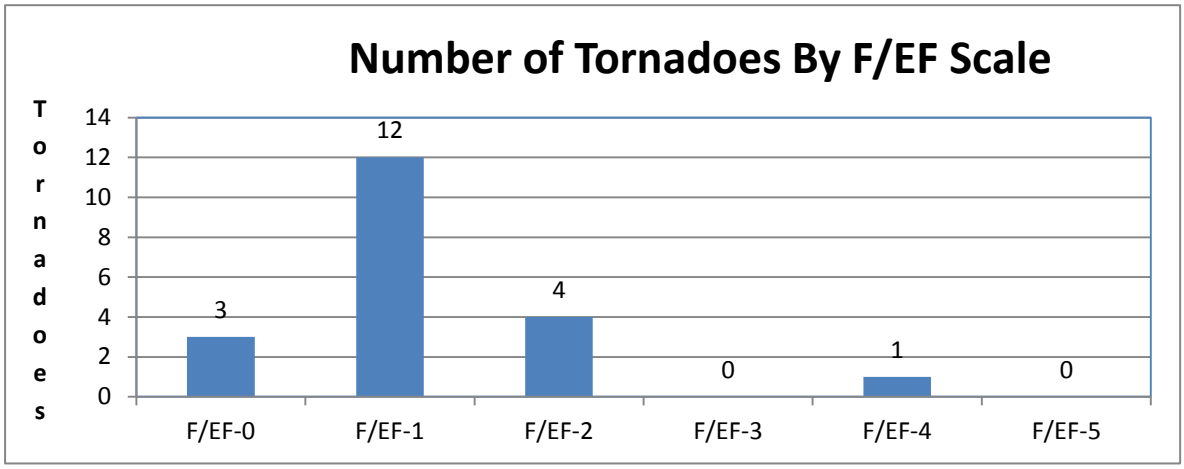
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		7	11	1957	1400	Whitelaw	1
2		4	24	1960	1600	7 SW Valders	1
3		6	30	1967	2349-2359	Chilton - 7 SW Valders	2
4		7	1	1967	0045	3 E Kiel	1
5		8	21	1972	1510	Goodwin - Two Rivers	1
6		5	9	1973	1550	2 N Reedsville	1
7		6	7	1978	1515	2 NW Francis Creek	2
8		8	4	1979	1000	Manitowoc	1
9		6	7	1980	0020	Valders	2
10		7	5	1980	0030	Valders	1
11		7	12	1987	1127-1130	1 S Francis Creek	1
12		8	4	1988	1435	1 E Reedsville - 2 N Cato	1
13		5	24	1989	2115	1 E Cooperstown	0
14		7	5	1994	1543-1555	3 NW Maribel - 0.5 W Cooperstown	4
15		7	5	1994	1553	2 SW Cooperstown	2
16		5	12	2000	1043	5 WNW St. Nazianz	0
17		5	23	2004	1747	2.7 E Reedsville	0
18		7	13	2004	1440-1452	1.4 NW Clark Mills to 2.8 SE Clark Mills	1
19		8	18	2005	2035-2039	6.5 SSW - 5.7 S Manitowoc	1
20		8	6-7	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larabee	1

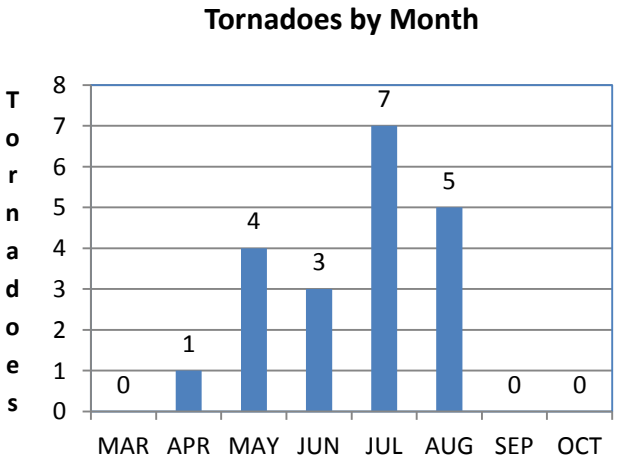
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

F/EF-2 or Greater Tornadoes in Manitowoc County

Event		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	30	1967	2349-2359	Chilton - 7 SW Valders	2
2		6	7	1978	1515	2 NW Francis Creek	2
3		6	7	1980	0020	Valders	2
4		7	5	1994	1543-1555	3 NW Maribel - 0.5 W Cooperstown	4
5		7	5	1994	1553	2 SW Cooperstown	2

Manitowoc County Severe Weather Facts (1950-2015)



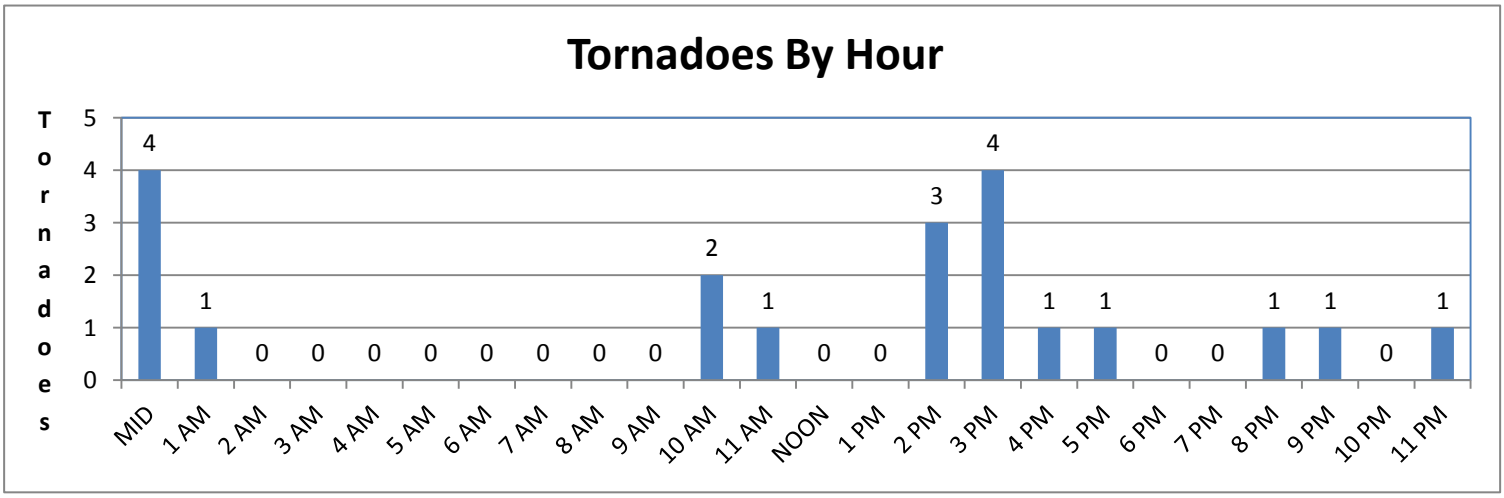


Tornadoes by Month

Documented tornadoes have occurred from April through August. The earliest documented tornado during the year occurred on April 24, 1960 when an F/EF-1 tornado touched down seven miles southwest of Valders. The tornado season peaks in July, then quickly wanes by September. The warm season months of May through August account for ninety-five percent of all tornadoes during the year. The latest documented tornado on record during the year occurred on August 21, 1972 when an F/EF-1 tornado touched down three miles east of Kiel.

Tornadoes by Hour

In Manitowoc County, eleven out of the twenty (fifty-five percent) documented tornadoes have occurred between 2 pm and 9 pm local standard time. There have been no documented tornadoes between the 2 am and 10 am local standard time. It is interesting to note there was another peak between 11 pm and 1 am. Checking the records, the four tornadoes between midnight and 1 am local standard time occurred in four different years.



Manitowoc County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March, October and December, large hail is the dominant weather event that is reported to the National Weather Service. During the spring and fall into early winter, the atmosphere is cold aloft to support large hail. For the remainder of the convective season, seven out of ten reports are high winds or wind damage compared to large hail reports.

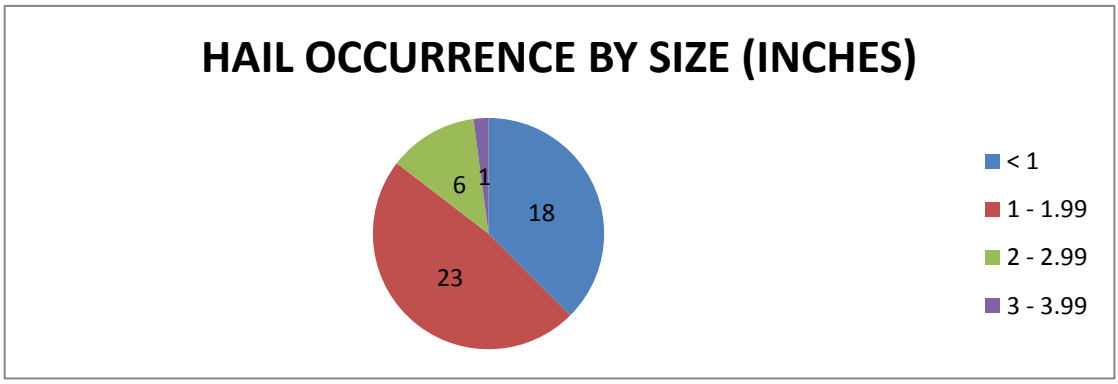
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	24.0	76.0
Feb	0.0	0.0	Aug	16.7	83.3
Mar	100.0	0.0	Sep	27.3	72.7
Apr	25.0	75.0	Oct	75.0	25.0
May	46.2	53.8	Nov	0.0	0.0
Jun	25.0	75.0	Dec	100.0	0.0
			Year	29.8	70.2

Large Hail in Manitowoc County

There have only been seven documented reports of hail two inches or greater in diameter across the county. The largest hail stone 3 inches in diameter was recorded from Branch to Manitowoc on July 1, 2006. The last documented hailstone of two inches or greater occurred a half mile east of downtown Manitowoc on June 27, 2013. Overall, hail ranging in size from three quarters to one inch accounted for fifty-eight percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for fifteen percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		5	12	2000	1047	3 W St. Nazianz to 1 SW Manitowoc	2.50
2		7	13	2004	1430	Reedsville to 1 N Whitelaw	2.50
3		7	1	2006	1929	Branch to Manitowoc	3.00
4		7	17	2006	1649	Manitowoc	2.00
5		7	30	2012	1900-1903	0.7 S Maribel	2.00
6		6	27	2013	1708	1 SE Manitowoc	2.00
7		6	27	2013	1703-1710	0.5 E Manitowoc	2.50



Manitowoc County Severe Weather Facts (1950-2015)

Manitowoc County Summary

In Manitowoc County, the severe weather season begins in earnest in May, peaks in June and July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak around midnight during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or late fall. Damaging wind or large hail will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Manitowoc County ranks 16th in the total number of storm reports and tied 11th in the number of tornado reports since 1950.

One of the most severe storms to hit Manitowoc County (pictures below of homes damaged in St. Nazianz) occurred during the late morning of May 12, 2000 when a single "high-precipitation" supercell thunderstorm developed in west-central Wisconsin, and moved east across the Waushara, Winnebago, Calumet and Manitowoc Counties. Hail up to the size of baseballs, driven by winds in excess of 60 mph, produced incredible damage in Waushara, Winnebago, Calumet, and Manitowoc counties. Chilton and St. Nazianz were particularly hard-hit by very large hail and hurricane force wind gusts well over 75 mph. Total damage from the storm in Wisconsin was nearly $122 million.

Manitowoc County Severe Weather Facts (1950-2015)

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Manitowoc County Severe Weather Facts (1950-2015)

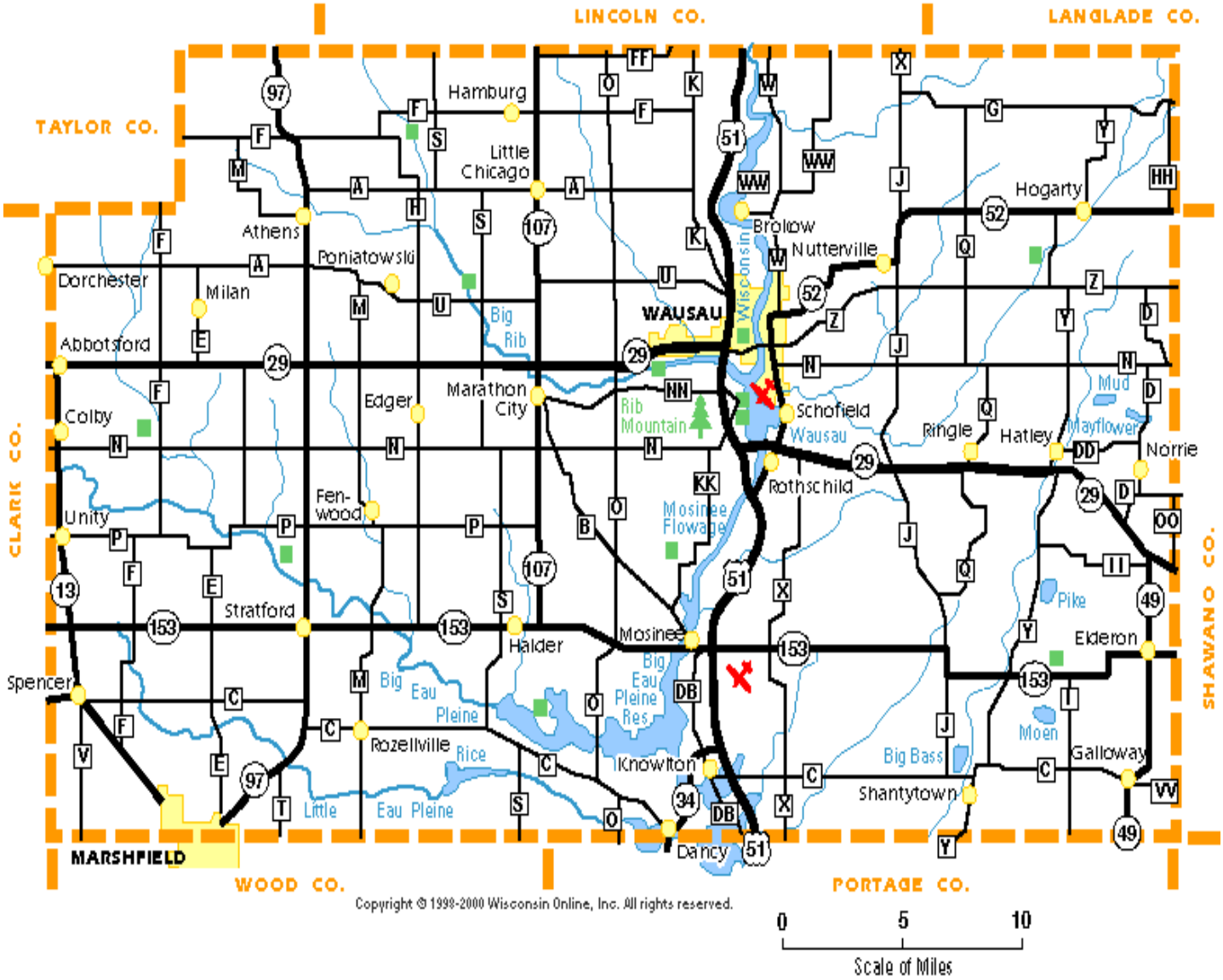
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

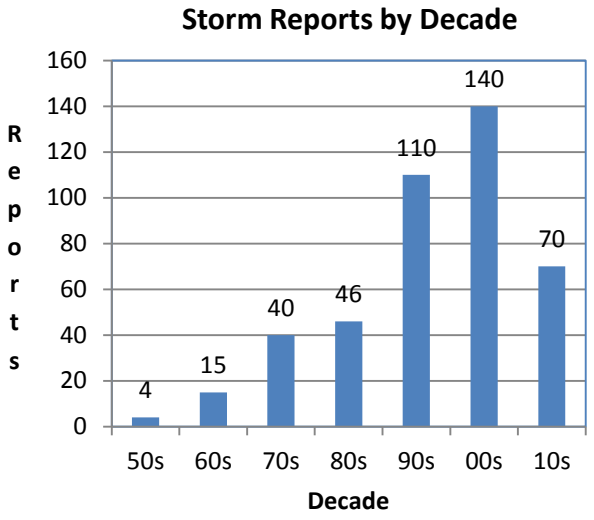
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Marathon County Severe Weather Facts (1950-2015)

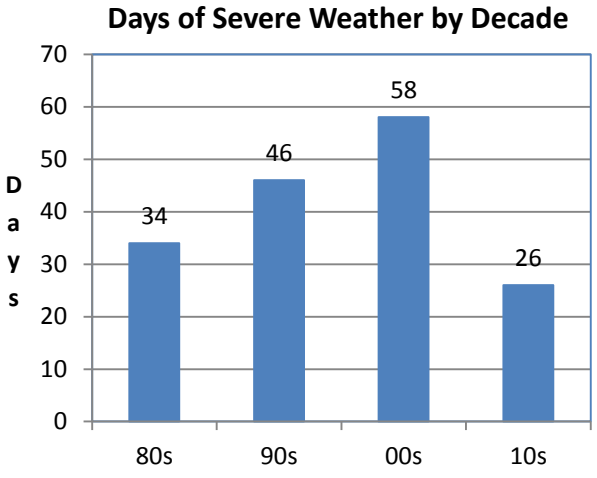


Marathon County Severe Weather Facts (1950-2015)



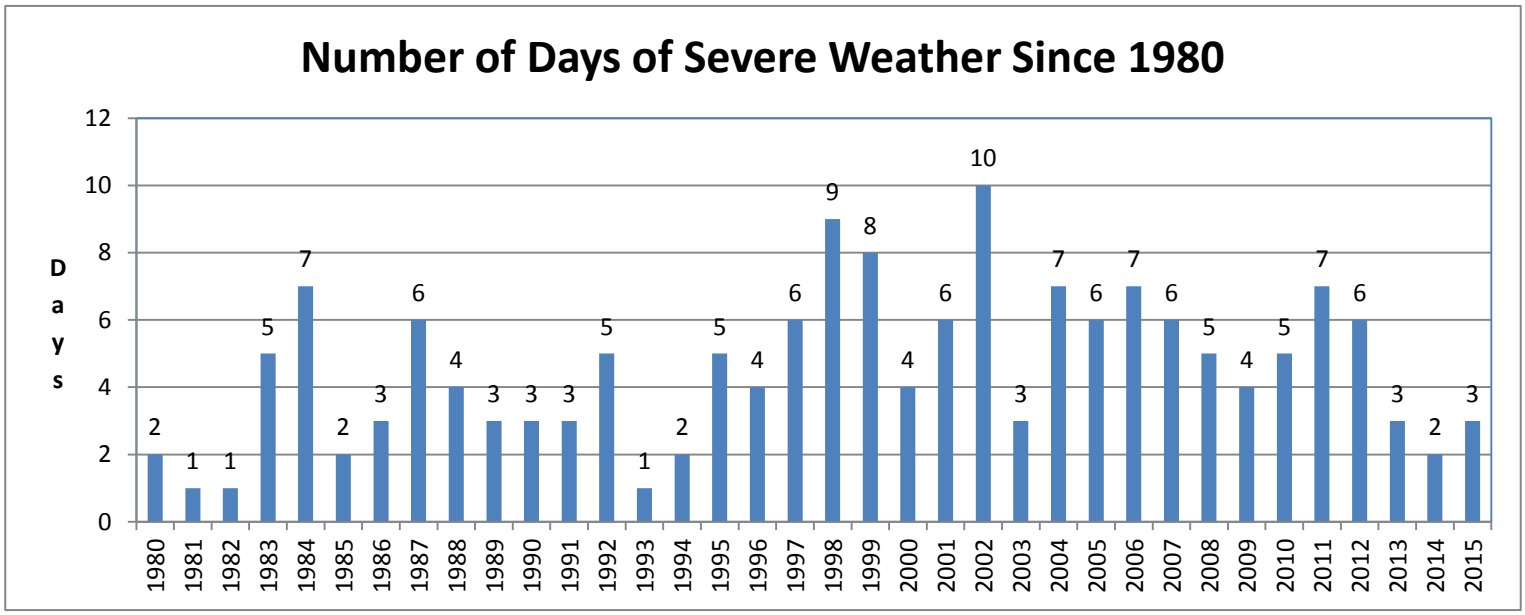
Storm Reports by Decade

Since 1950 there have been 425 documented reports of large hail, damaging winds and tornadoes across Marathon County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 204 percent from the 1980s to 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

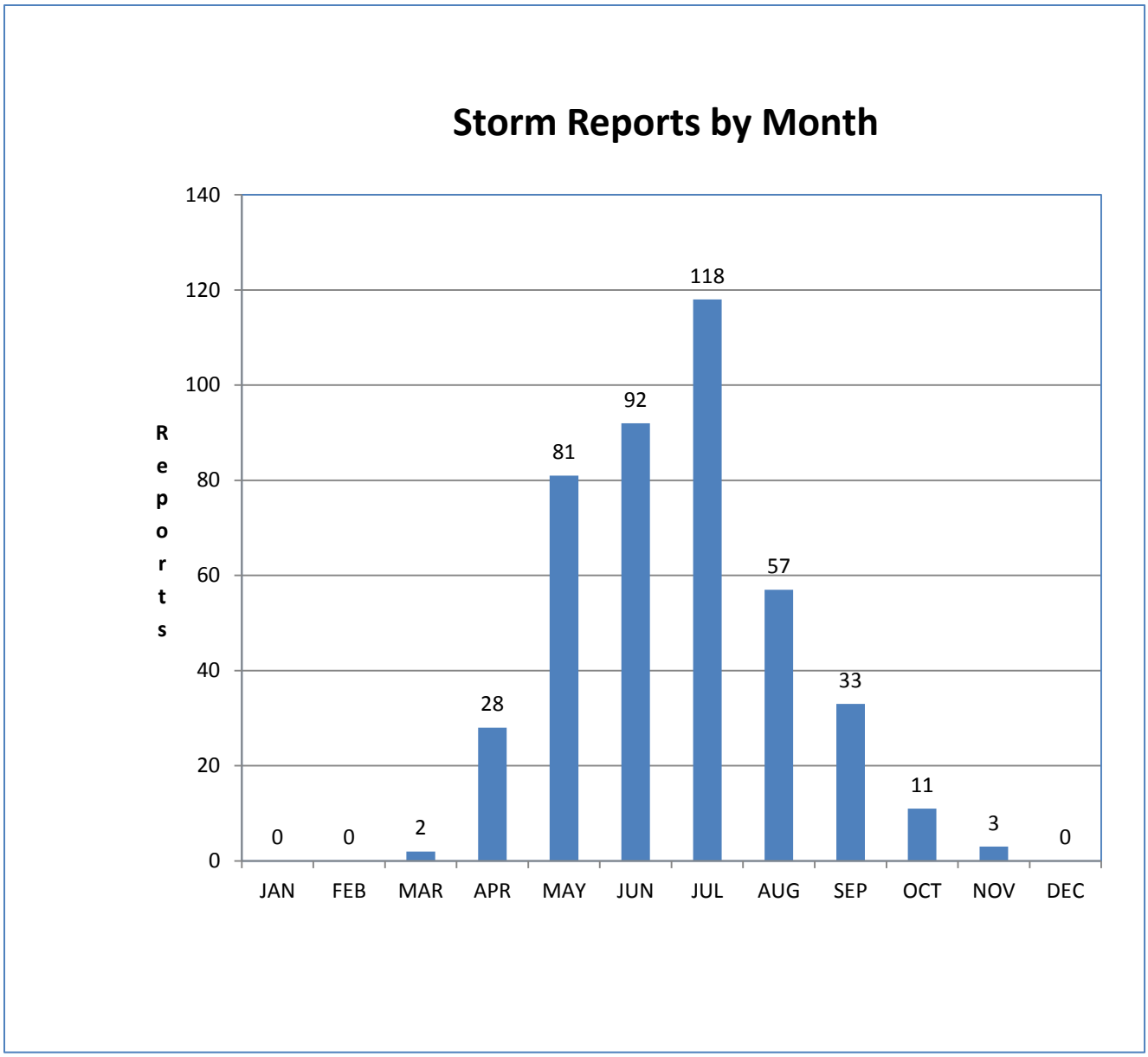
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 71 percent in the number of days of severe weather from the 1980s to 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Marathon County averages 4.3 days of severe weather in a given year. The long term average from 1980-2015 is 4.6 days. The most active year was 2002 with ten days of severe weather; followed by nine days of severe weather in 1998, and eight days in 1999.



Marathon County Severe Weather Facts (1950-2015)

Storm Reports by Month

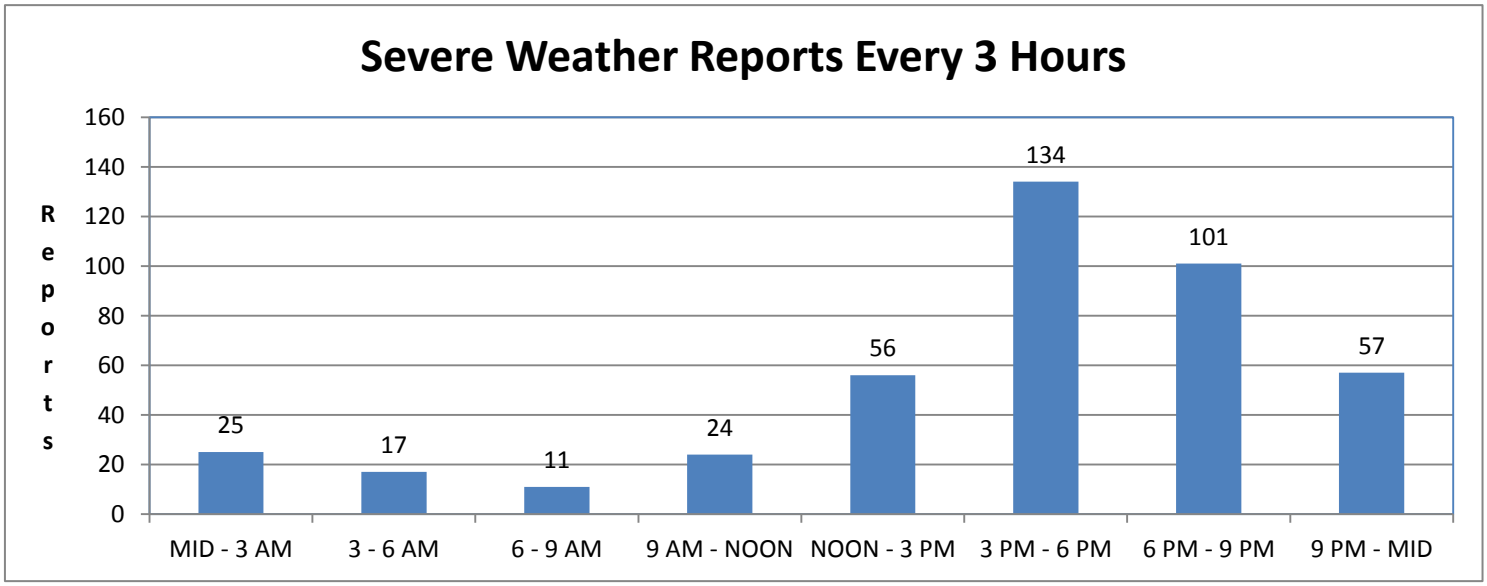
Severe weather has been recorded in Marathon County from March through November. A rare event can occasionally occur in March. The earliest documented report of severe weather during the year occurred on March 8, 2000 when one inch hail was reported at Stratford. The severe weather season begins in earnest in April. The heart of the convective season is May through July and accounts for sixty-eight percent of all severe weather reports. July is the peak month for severe weather. Severe weather reports quickly wanes by September. The warm season months from May through September accounted for ninety percent of all severe weather reports during the year. Severe weather can occur from time to time in September with isolated reports during October and November. Marathon County is the only county in the Green Bay forecast area that has documented reports of severe weather during November. A tornado was reported to from Chili in Clark County to Rib Mountain on November 15, 1960. The latest report of severe weather during the year in Marathon County occurred on November 21, 1990 when wind damage was reported three miles north of Nutterville.

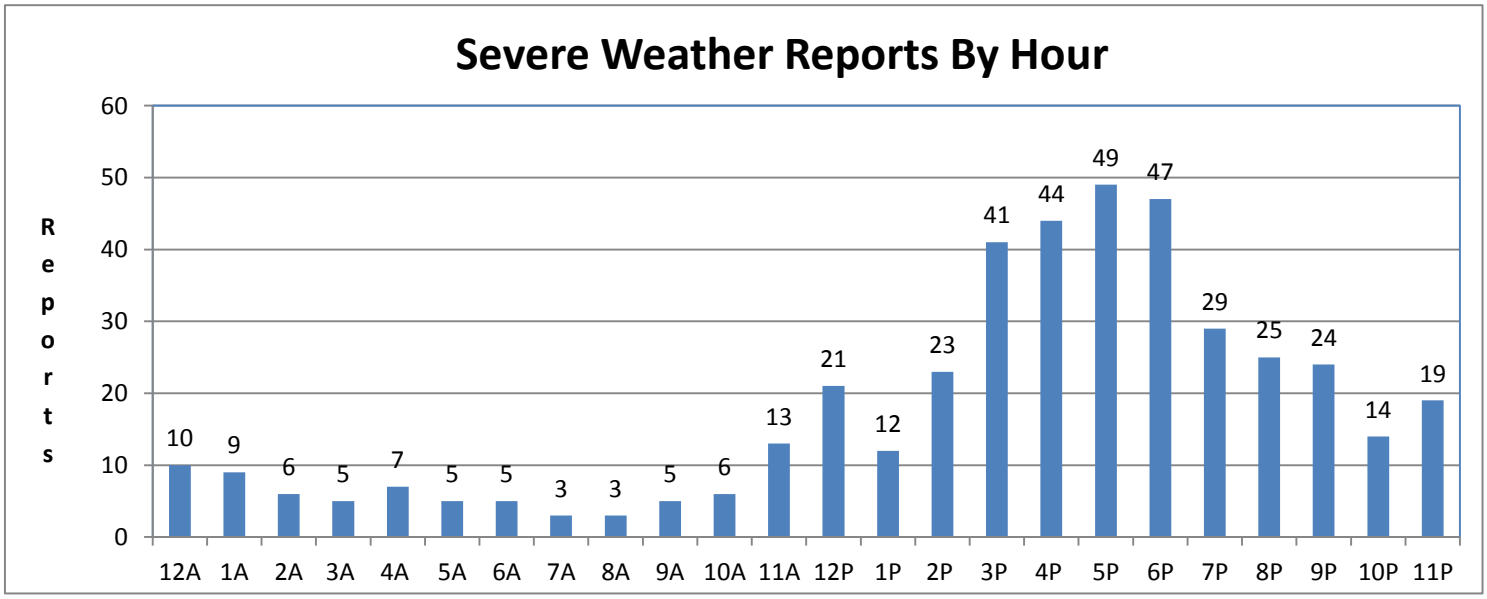


Marathon County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Marathon County. Sixty-four percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Marathon County, severe weather reports increased sharply after 1 pm with a peak between 3 pm and 7 pm local standard time. The peak in the storm activity corresponded to the afternoon heating when the atmosphere is most unstable. During May through September, there was another minor peak in activity between midnight and 5 am. In these events, severe thunderstorms develop across Minnesota and the Dakotas which move into the county overnight. Although very rare to see severe weather between 6 am and noon, Marathon County had the highest number of reports during this time frame in the Green Bay forecast area. In 2012, there was a rare outbreak of severe weather between 6:50 am and 8:05 am CST on October 25th. This line of thunderstorms produced hail up to 1.25 inches and produced widespread wind damage across the western half of the county.

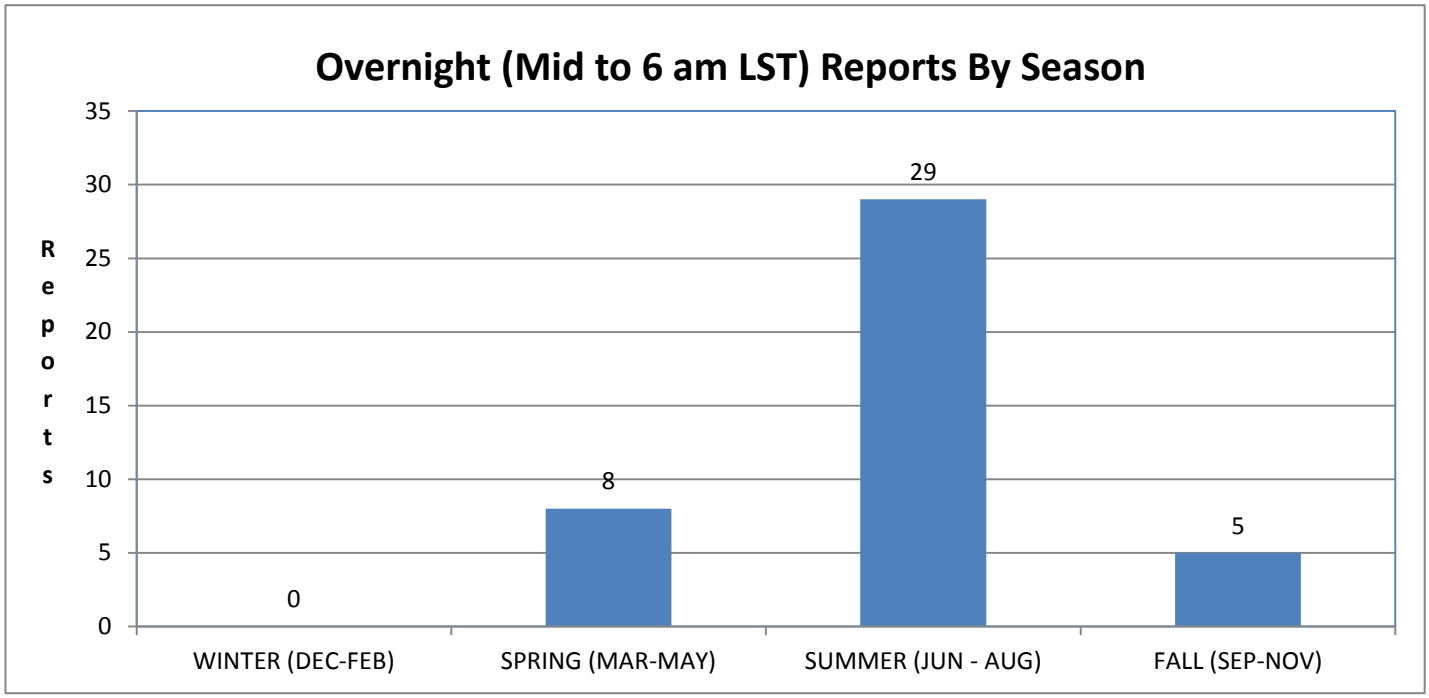




Marathon County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for 69% of all overnight reports of severe weather during the year.



Marathon County Severe Weather Facts (1950-2015)

All Marathon County Tornadoes

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	25	1950	2110	2 W Unity - 3 NE Abbotsford	2
2		6	20	1954	0230	Mosinee	2
3		6	4	1958	1930	6 SE Chippewa Falls to 2 NW Athens	3
4		5	4	1959	1030	Wausau	1
5		11	15	1960	1425	Chili to near Rib Mountain	2
6		9	3	1961	0010	Fenwood	2
7		9	3	1961	0100	Athens	1
8		5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	2
9		8	19	1968	1730	4 W Fenwood - 11 E Fenwood	2
10		9	28	1971	1415-1605	3 NE Brokaw - 6 NE Hogarty	3
11		9	28	1971	1600	1 NE Abbotsford - Athens	3
12		6	18	1973	1100	2 W Athens	1
13		4	12	1974	1405	5 W Athens	2
14		6	13	1976	2000	2 W Hogarty - Elton	1
15		8	31	1977	1815	Rib Mountain - Wausau	3
16		7	15	1982	1915	Mayflower Lake	1
17		7	3	1983	1735	6 W Unity - Cherokee	2
18		6	26	1984	1655	13 N Wausau - Texas	1
19		9	24	1984	1650	13.5 WSW Wausau - Wausau	2
20		7	2	1987	1710	Pike Lake	1
21		5	8	1988	1710	4.5 SW Hadler - Rib Falls	2
22		9	19	1988	1637	1 W Edgar	0
23		6	12	1990	1835	2 W Stratford	1
24		7	19	1992	1554	2 WSW Stratford	1
25		7	8	1994	1400	3 NW Elderon	1
26		8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	2
27		8	7	1996	0146-0147	1 N - 1.2 NE Stratford	1
28		8	7	1996	0219-0221	4 SW Shantytown - Shantytown	1
29		7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	2
30		7	16	1997	1500-1502	4 SW - 4.2 SW Hogarty	0
31		7	16	1997	1500-1501	3 N Sunset	0
32		7	16	1997	1509-1511	2 NE - 1.8 NE Ringle	1
33		7	16	1997	1520-1522	2 N - 1.8 N Elderon	0
34		5	31	1998	0020-0021	4 WSW Mosinee	0
35		4	18	2002	1813-1827	3 SE Stratford - 6 NW Mosinee	1
36		4	18	2002	1832	6 SSW Wausau Airport	0
37		7	30	2002	1822-1828	3 W - 0.8 W Central Wisconsin Airport	0
38		9	2	2002	1704-1706	5.2 W - 5 W Athens	0

Marathon County Severe Weather Facts (1950-2015)

All Marathon County Tornadoes Continued

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
39		9	2	2002	1735-1743	6 NW Wausau - 4 NE Wausau	1
40		6	4	2005	1527-1529	4 W - 4.5 WNW Edgar	0
41		6	4	2005	1539-1542	1 W - 1.5 NW Athens	0
42		6	4	2005	1706	4 S Athens	0
43		6	4	2005	1720	3 W Marathon	0
44		6	4	2005	1918	7 S Hogarty	0
45		6	10	2005	1303	4 W Mosinee	0
46		6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	2
47		5	25	2008	2000-2001	3 ENE Knowlton	0
48		7	29	2008	1527	3.6 NW Granite Heights	0
49		7	29	2008	1559-1600	6.3 NNW of Kalinke	0
50		4	10	2011	1708-1741	2 N Hamburg – 1 SW Bloomfield	0
51		5	24	2012	1801-1807	3.7 SSE – 4.8 ENE Marathon	0

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

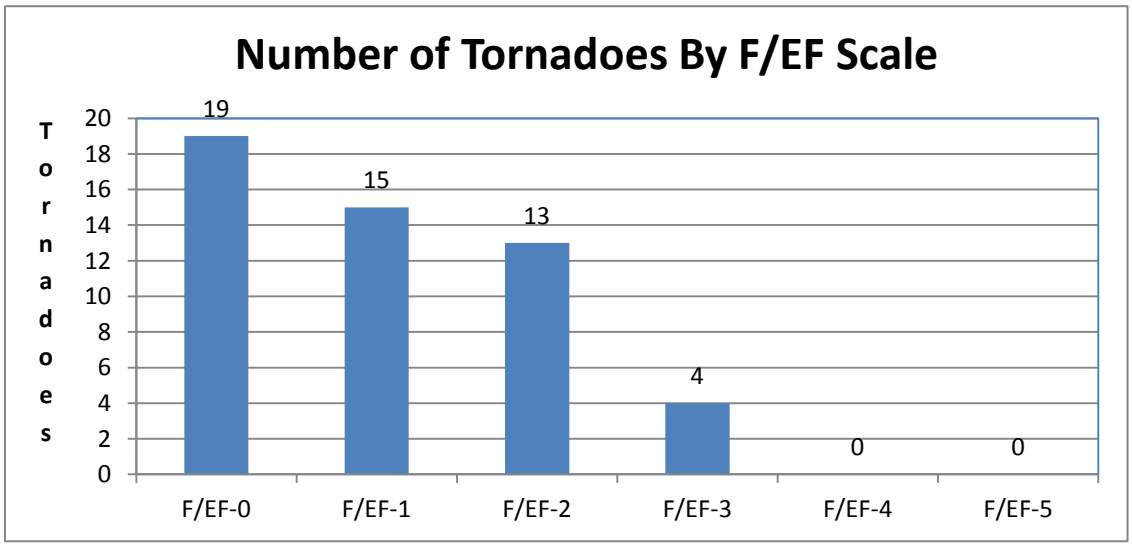
F/EF-2 or Greater Tornadoes in Marathon County

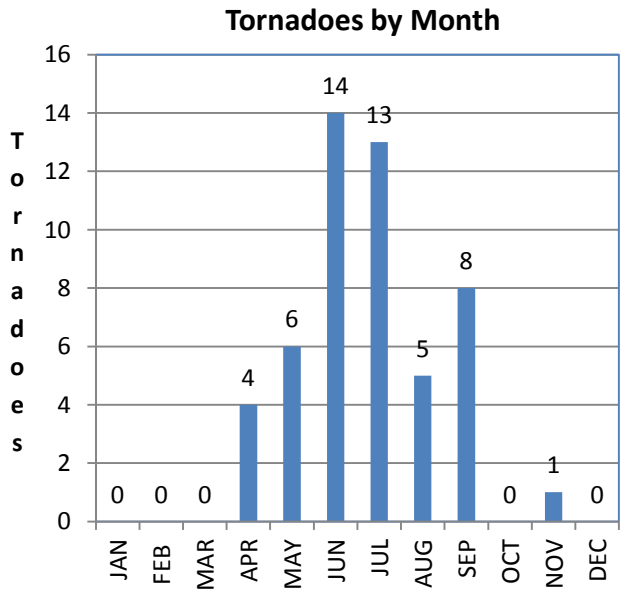
		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	25	1950	2110	2 W Unity - 3 NE Abbotsford	2
2		6	20	1954	0230	Mosinee	2
3		6	4	1958	1930	6 SE Chippewa Falls to 2 NW Athens	3
4		11	15	1960	1425	Chili to near Rib Mountain	2
5		9	3	1961	0010	Fenwood	2
6		5	8	1964	1750	7 ESE Knowlton - 5 W Elderon	2
7		8	19	1968	1730	4 W Fenwood - 11 E Fenwood	2
8		9	28	1971	1415-1605	3 NE Brokaw - 6 NE Hogarty	3
9		9	28	1971	1600	1 NE Abbotsford - Athens	3
10		4	12	1974	1405	5 W Athens	2
11		8	31	1977	1815	Rib Mountain - Wausau	3
12		7	3	1983	1735	6 W Unity - Cherokee	2
13		9	24	1984	1650	13.5 WSW Wausau - Wausau	2
14		5	8	1988	1710	4.5 SW Hadler - Rib Falls	2
15		8	7	1996	0145-0149	6.5 N Stratford - 2.5 NNW Fernwood	2
16		7	16	1997	1440-1445	8.5 NNE - 6.9 NE Nutterville	2
17		6	7	2007	1501-1514	1.4 W Peplin to 0.9 N Pike Lake	2

Marathon County Severe Weather Facts (1950-2015)

Tornadoes

Since record keeping began in 1950, there have been fifty-one documented tornadoes in Marathon County. Of the fifty-one tornadoes, there have been four documented tornadoes of F/EF-3 or greater intensity. There have been four F/EF-3 tornadoes to strike the county. The last F/EF-3 tornado occurred on August 31, 1977. The tornado touched down one mile northeast of Abbotsford and then moved to near Athens. Thirteen tornadoes were rated F/EF-2 intensity while thirty-four tornadoes were rated F/EF-0 or F/EF-1. The most active year was 2005 with six tornadoes, followed by five tornadoes in 1997 and 2002, and three tornadoes in 1996. A tornado was reported in the county for four consecutive years from 1958 to 1961 and three consecutive years from 1996 to 1998. Since 1950, tornadoes have touched down in thirty different years. A tornado strike in Marathon County occurs on average about every year and a half.





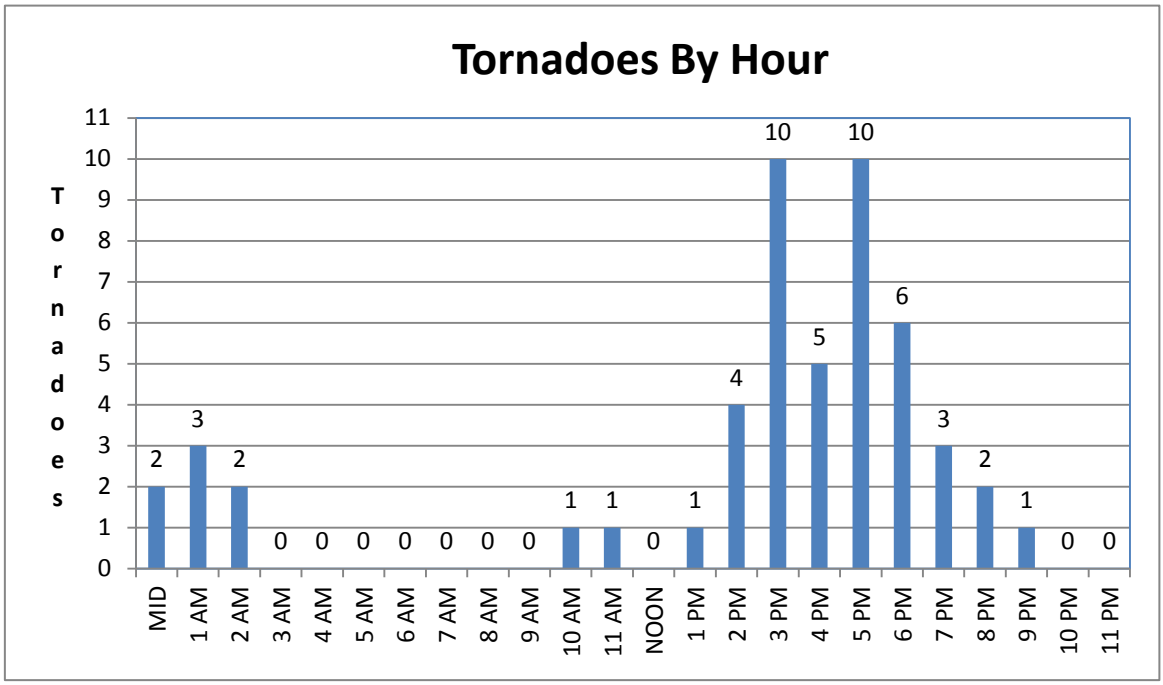
Tornadoes by Month

Documented tornadoes have occurred in Marathon County from April through September with a rare tornado in November. The earliest documented tornado during the year occurred on April 12, 1974 when an F/EF-2 tornado touched down five miles west of Athens. The tornado season peaks in June and July, which account for fifty-three percent of all tornado reports. There were more documented tornadoes in September than in August. During September, cold fronts are typically stronger while the jet stream is beginning to shift southward during the fall which may explain the increase in tornado activity. The warm season months of May through September account for ninety percent of all tornadoes during the year. The latest tornado on record during the year occurred on November 15, 1960 when an F/EF-2 tornado touched down near Chili in Clark County and travelled to near Rib Mountain.

Marathon County Severe Weather Facts (1950-2015)

Tornadoes by Hour

In Marathon County, forty-one out of the fifty-one (80 percent) documented tornadoes have occurred between 2 pm and 10 pm local standard time. There have been no documented tornadoes between the 3 am and 9 am local standard time.



Predominant Storm Reports – Wind and Hail Only

During April, May and October, large hail is the dominant weather event that is reported to the National Weather Service. Typically the atmosphere is colder during this time of year to support large hail. For the remainder of the convective season, reports of high winds or wind damage are more likely to be reported than large hail. Wind events are the most predominant report type during June through September.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	27.6	72.4
Feb	0.0	0.0	Aug	36.5	63.5
Mar	50.0	50.0	Sep	24.0	76.0
Apr	79.2	20.8	Oct	63.6	36.4
May	58.7	41.3	Nov	0.0	100.0
Jun	37.2	62.8	Dec	0.0	0.0
			Year	41.2	58.8

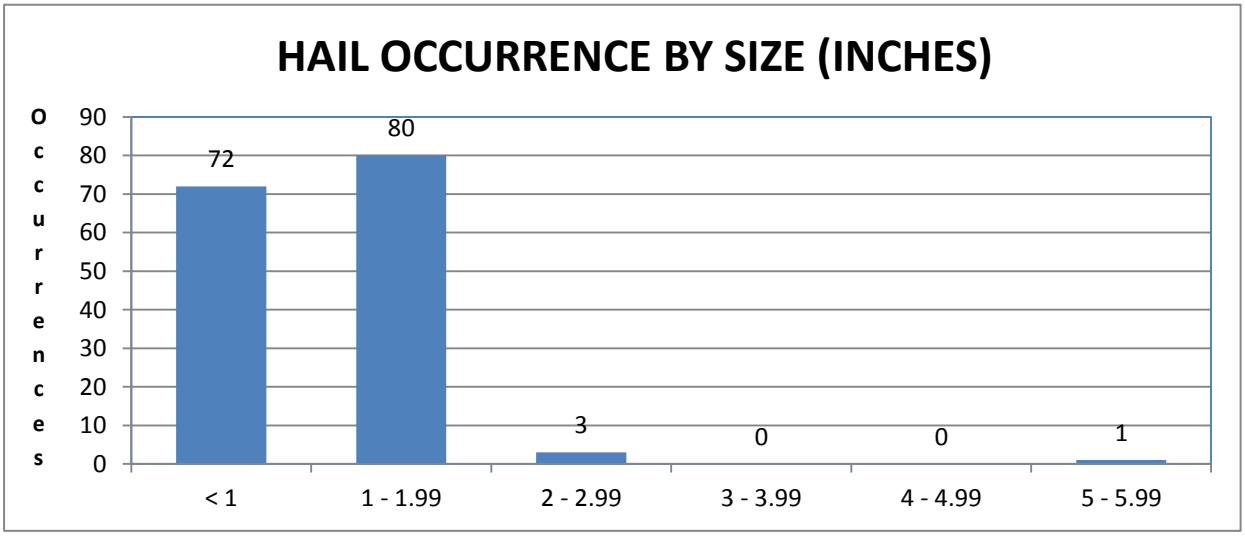
Marathon County Severe Weather Facts (1950-2015)

Large Hail in Marathon County

There have only been four documented reports of hail two inches or greater in diameter across the county. The largest hail stone documented in the county was 5.7 inches in diameter which occurred in Wausau in 1921. This hailstone is also the state record for Wisconsin. The last hailstone two inches or greater in diameter occurred on April 25, 2008 when 2.75 inch hail was reported at Marathon. Overall, hail ranging in size from three quarters to one inch accounted for seventy-nine percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for two percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		5	??	1921	??	Wausau	5.70
2		7	18	1996	0915	2 E Brokaw	2.00
3		6	13	2004	0619	Marathon	2.25
4		4	25	2008	1707	Marathon	2.75



Note: The state record hailstone was included in the graph.

Marathon County Severe Weather Facts (1950-2015)

Marathon County Summary

In Marathon County, the severe weather season begins in earnest in April, peaks in June and July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring or late fall. Damaging wind or large hail will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Marathon County ranks 1st in the total number of storm reports and 1st in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves 22 counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Marathon County Severe Weather Facts (1950-2015)

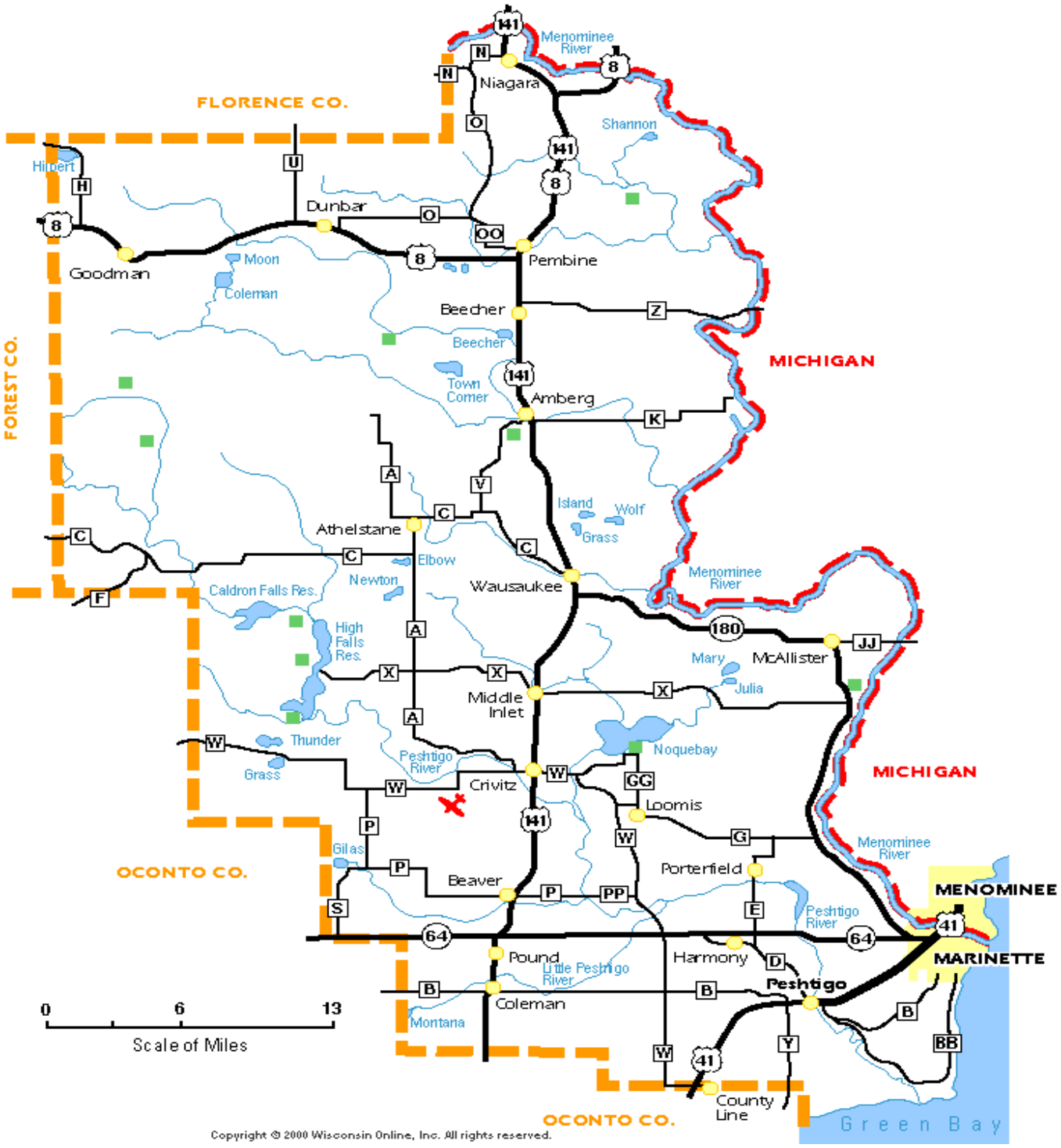
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown

Marinette County Severe Weather Facts (1950-2015)



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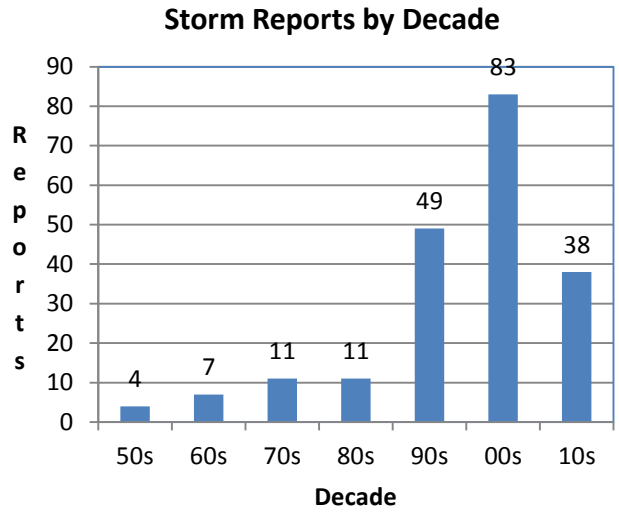
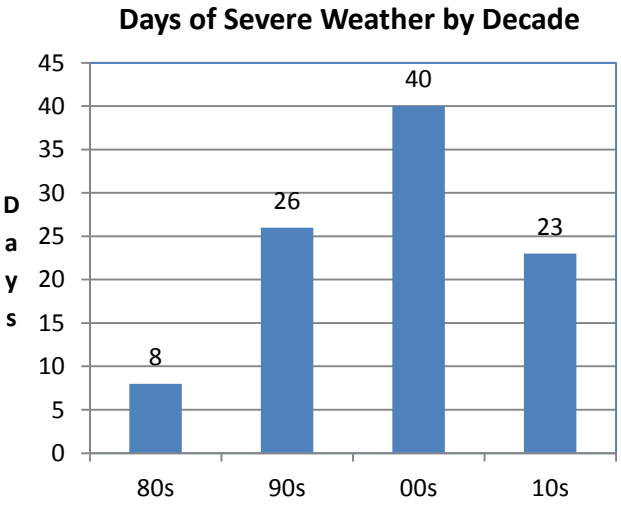
Marinette County Severe Weather Facts (1950-2015)



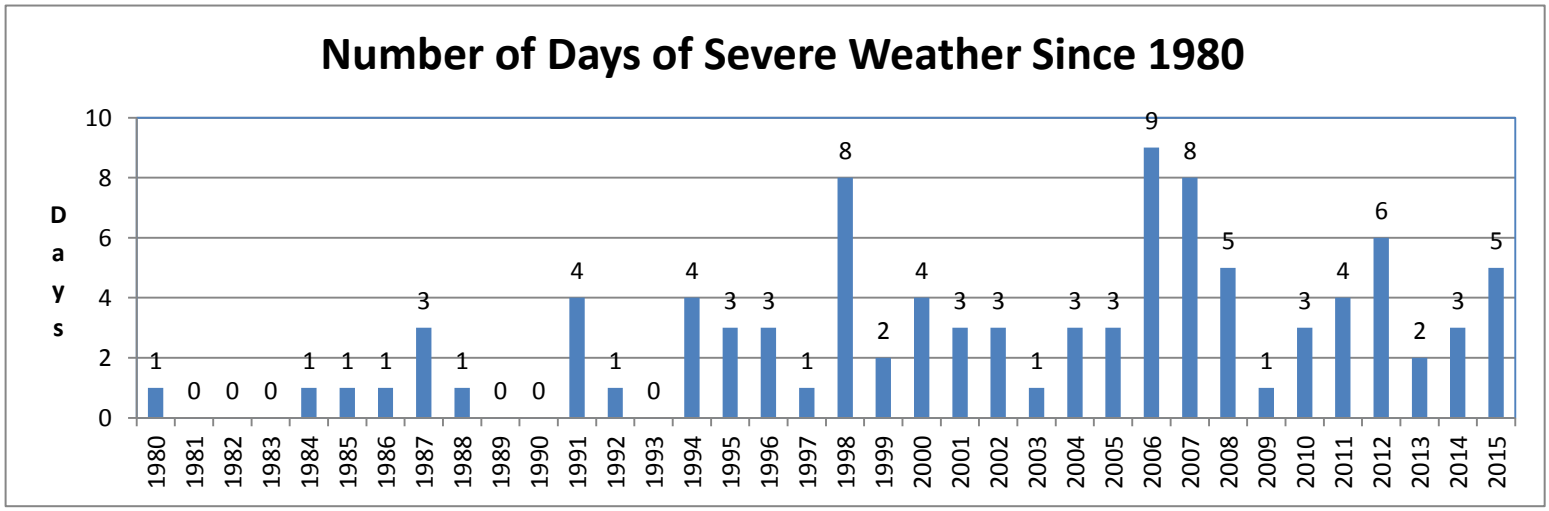
Storm Reports by Decade

Since 1950 there have been 203 reports of large hail, damaging winds and tornadoes across Marinette County The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 654 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

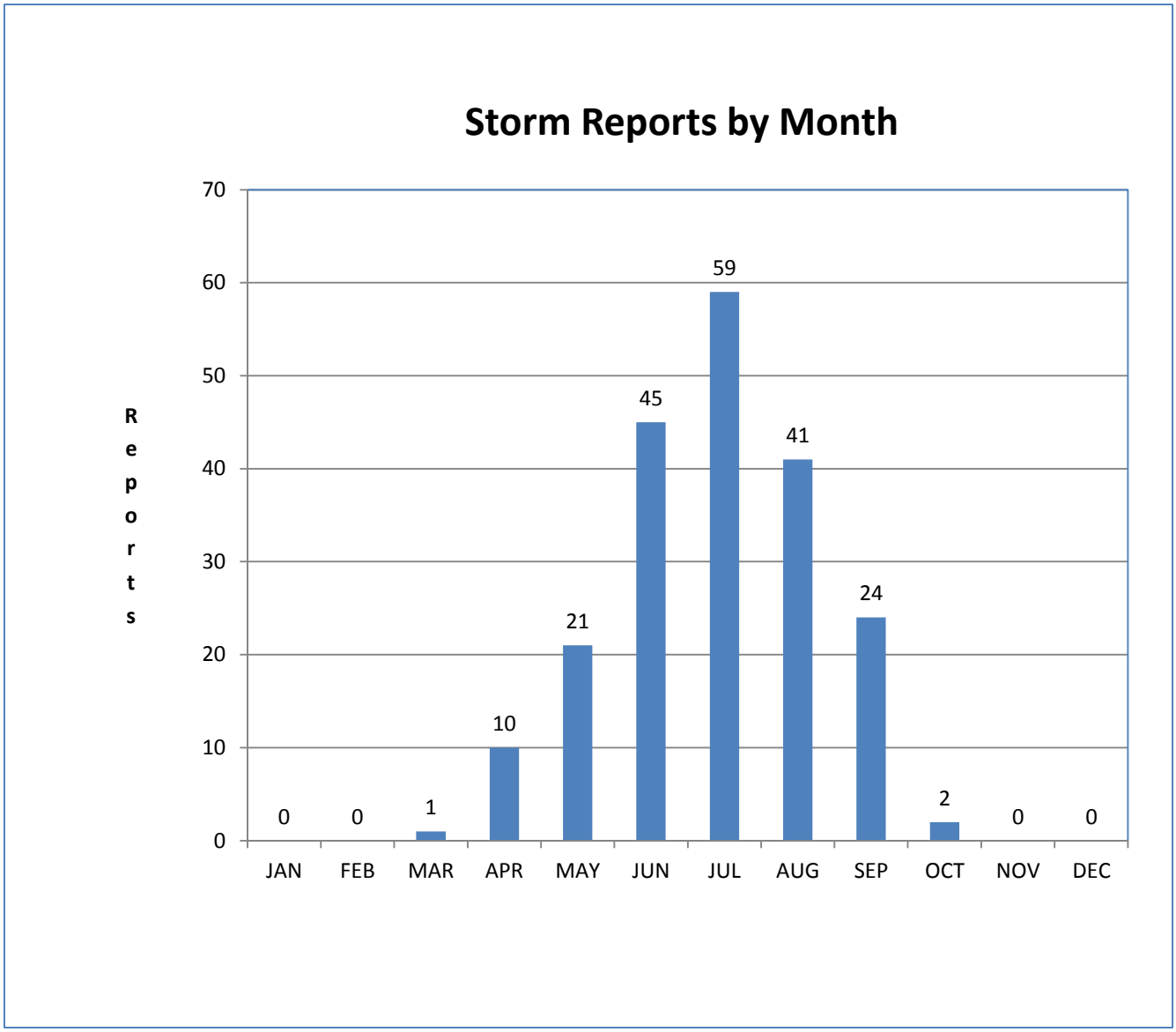
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 400 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Marinette County averages 3.8 days of severe weather in a given year. The long term average from 1980-2015 is 2.7 days. The most active year was 2006 with nine days of severe weather; followed by eight days of severe weather in 1998 and 2007, and six days in 2012.



Marinette County Severe Weather Facts (1950-2015)

Storm Reports by Month

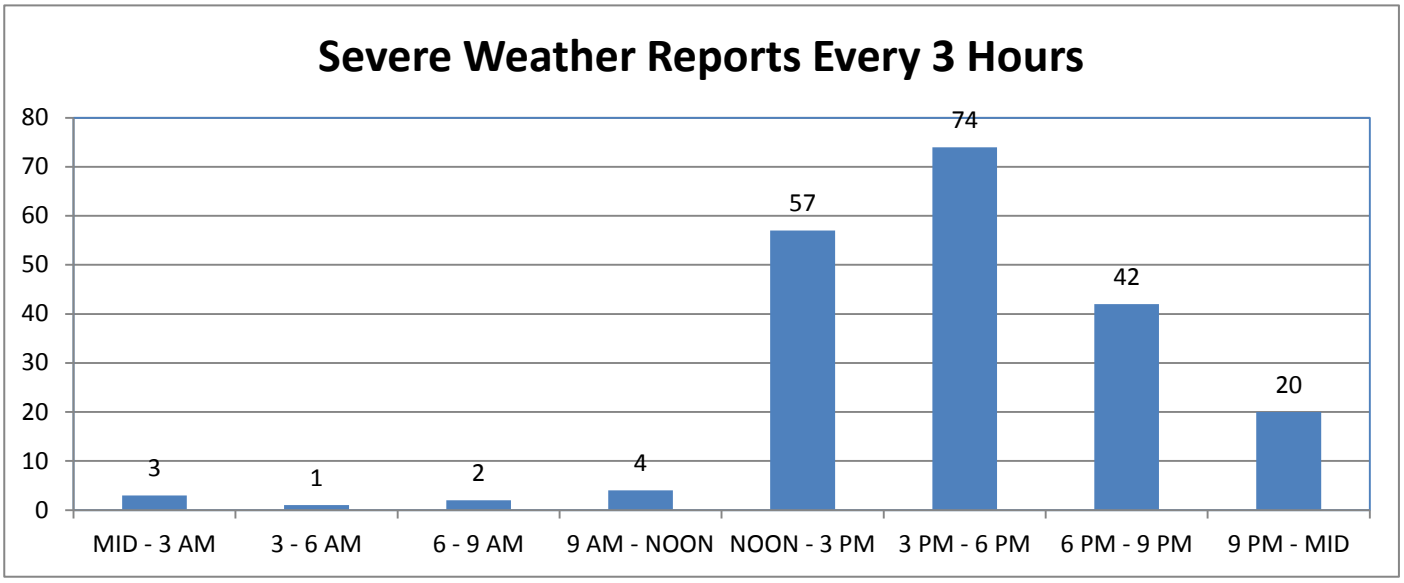
Severe weather has been documented in Marinette County from March through October. There have been no documented reported from November through February. A rare event can occur in March. The earliest documented report of severe weather during the year occurred on March 29, 1998. Nickel size hail was reported six miles south southeast of Peshtigo. The severe weather season begins in earnest in April. The heart of the convective season is June and July and accounts for fifty-one percent of all severe weather reports. July is the peak month for severe weather and then quickly wanes by September. The warm season period of May through September accounts for ninety-four percent of all severe weather reports during the year. Severe weather can occur from time to time in September. The latest documented report of severe weather during the year occurred on October 25, 2012 when one inch hail was documented in Marinette.

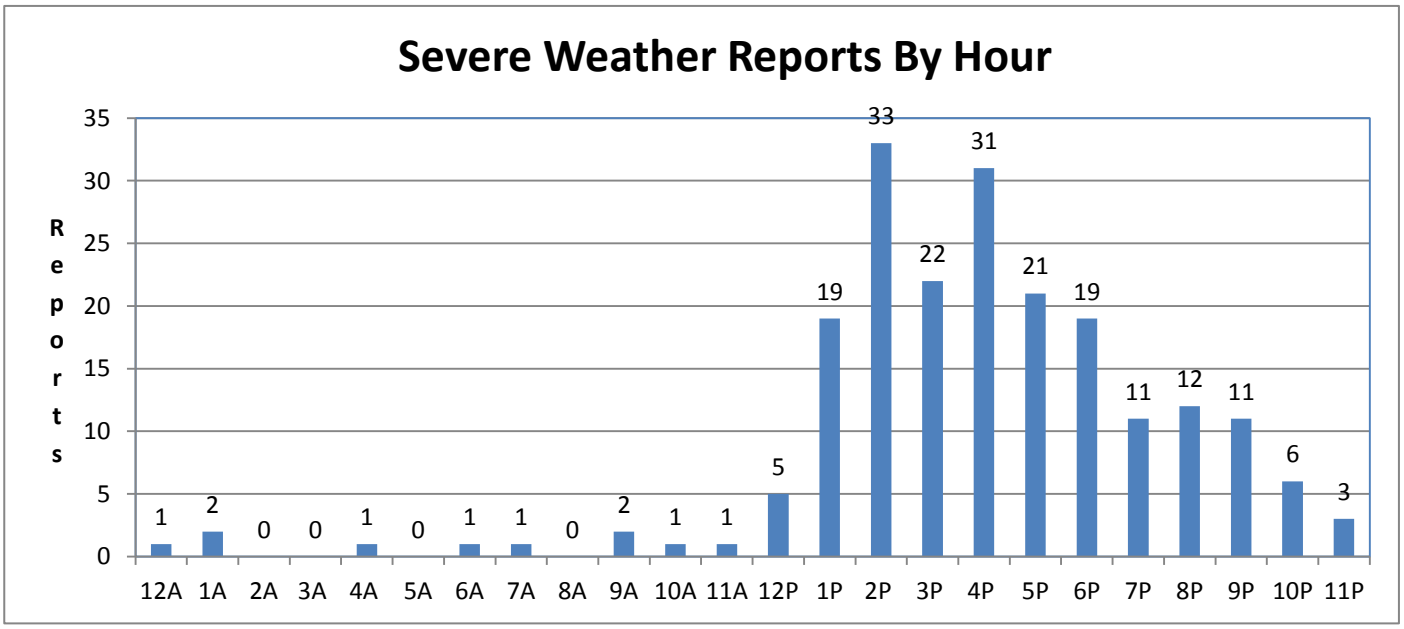


Marinette County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Marinette County. Eighty-three percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Marinette County, severe weather reports increased sharply after 1 pm with a peak between 2 pm and 7 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. Of all the counties across north central and northeast Wisconsin, Marinette County is the least likely to see severe weather between midnight and 6 am during the summer months. Many counties to the south and west of Marinette County see a minor peak in convective activity between midnight and 6 am from June through August.

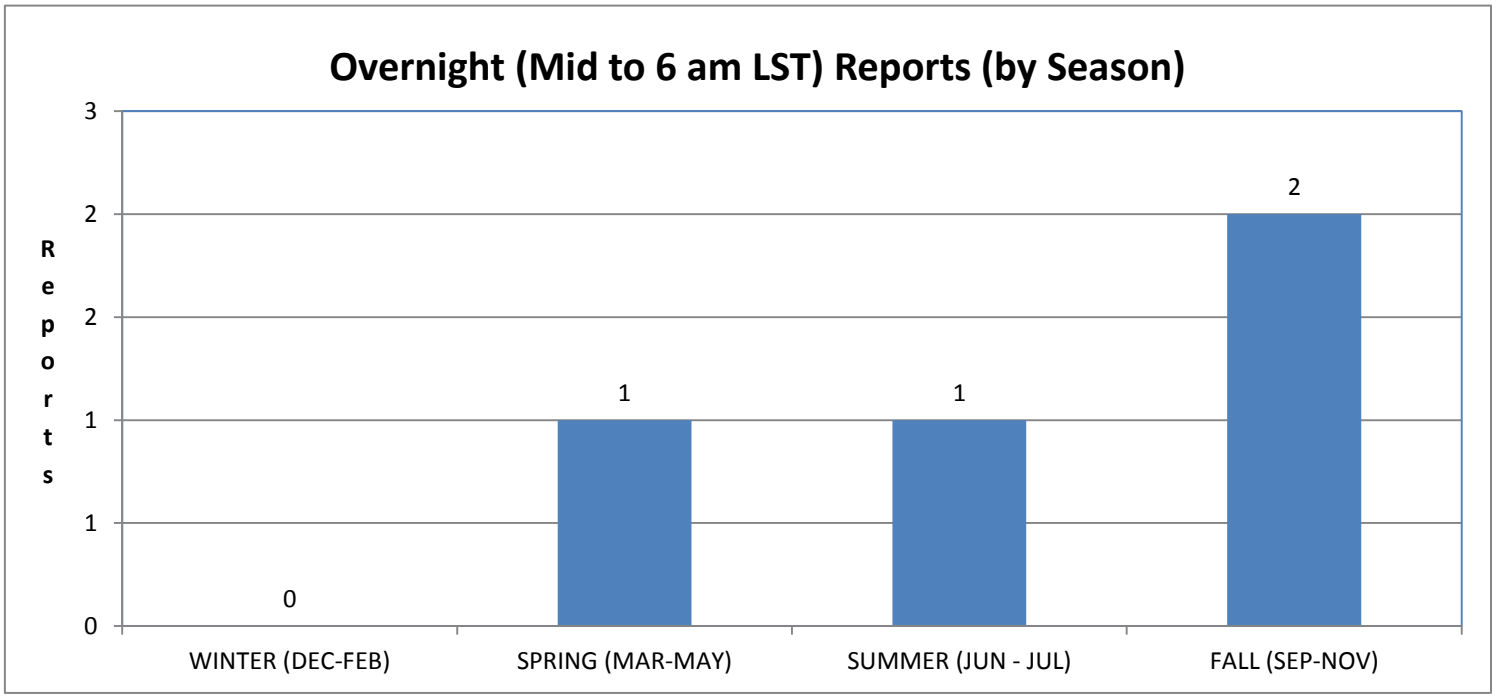




Marinette County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

There was no clear indication which season would be more favorable for severe weather reports due to only four reports in the last 65 years across Marinette County. Over much of north-central and northeast Wisconsin, the summer months usually have a peak in the overnight reports during the year due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. We are not sure why Marinette County does not trend the like the rest of north-central and northeast Wisconsin with a summer peak. It is possible that the storms weakened or moved north or south of Marinette County are some possible reasons for the lack of a peak during the summer months.

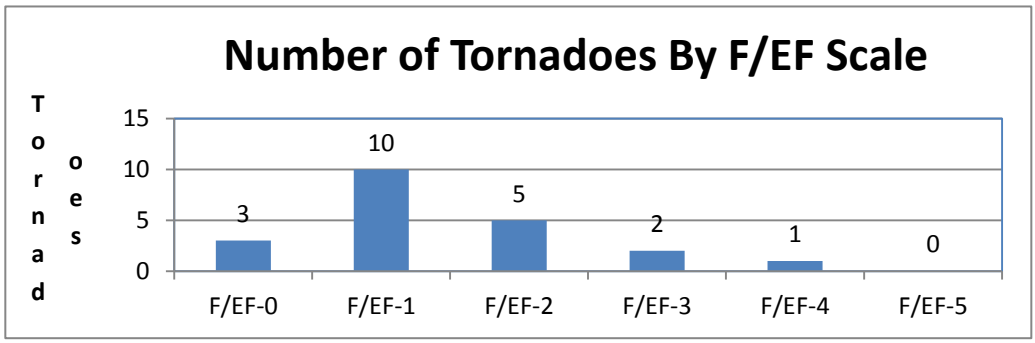


Marinette County Severe Weather Facts (1950-2015)

Marinette County Tornadoes

Since record keeping began in 1950, there have been twenty-one documented tornadoes in Marinette County. Of the twenty-one tornadoes, there has been one documented F/EF-4 tornado which touched down from Pound to Marinette on August 19, 1968 around 4:10 pm local standard time. There have been two documented F/EF-3 tornadoes. The last F/EF-3 tornado to strike the county occurred on July 4, 1986 when the F/EF-3 tornado developed two miles south of Niagara and moved into upper Michigan. Five other tornadoes were rated F/EF-2 intensity while thirteen tornadoes were rated F/EF-0 or F/EF-1. The most active year with two tornadoes occurred in 1958, 1968, 1971, 2000 and 2007. A tornado was reported across Marinette County for five consecutive years from 1970 to 1974. In 2011, a killer tornado moved across the county near Wausaukee on August 19th. The tornado killed one person. Since 1950, tornadoes have touched down in sixteen different years. A tornado strike in Marinette County occurs on average about every three years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	17	1958	1540	3 W Wausaukee	2
2		8	30	1958	1526	6 SE Wausaukee	1
3		7	8	1959	1654	Niagara	2
4		6	9	1964	1500	Pound	2
5		6	30	1968	0445	3 S Pembine	1
6		8	19	1968	1610	3 SW Pound - Marinette	4
7		7	14	1970	1400	McAllister	1
8		6	18	1971	1345	5 W Marinette	1
9		9	28	1971	1715-1725	Hewitt - Middle Inlet	3
10		9	16	1972	1605	4 NW Wabeno east southeast into UP	2
11		6	3	1973	1815	2 NE Amberg	1
12		4	21	1974	1525	4 NNW Crivitz	2
13		6	20	1979	1430	Goodman	1
14		7	14	1984	2035	1 SE Peshtigo	0
15		7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	3
16		8	27	1994	2141	1.5 S Wausaukee - 3 SE Wausaukee	1
17		7	27	2000	1907-1910	1.5 W - 1.1 WSW Harmony	0
18		7	27	2000	1930	1.7 W Peshtigo	0
19		6	7	2007	1637-1640	0.5 W -2.5 ENE Cedarville	1
20		6	7	2007	1716-1720	3.5 W Harmony to 1.2 N Harmony	1
21		8	19	2011	1545-1556	2.9 NW – 5.2 ESE Wausaukee	1

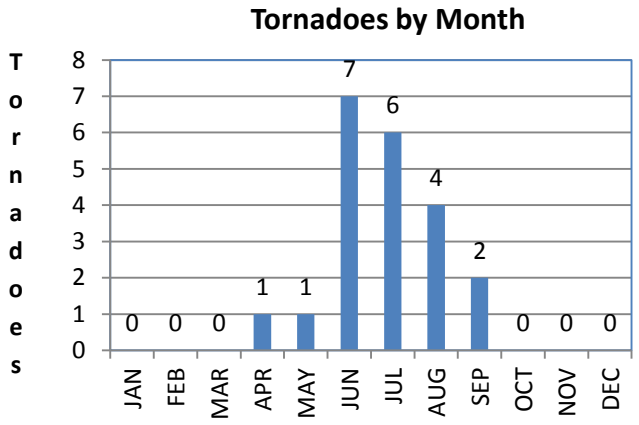


Marinette County Severe Weather Facts (1950-2015)

F/EF-2 or Greater Tornadoes in Marinette County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	17	1958	1540	3 W Wausaukee	2
2		7	8	1959	1654	Niagara	2
3		6	9	1964	1500	Pound	2
4		8	19	1968	1610	3 SW Pound - Marinette	4
5		9	28	1971	1715-1725	Hewitt - Middle Inlet	3
6		9	16	1972	1605	4 NW Wabeno east southeast into UP	2
7		4	21	1974	1525	4 NNW Crivitz	2
8		7	4	1986	1900-1925	2 S Niagara - Carney/Nadeau, MI	3

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

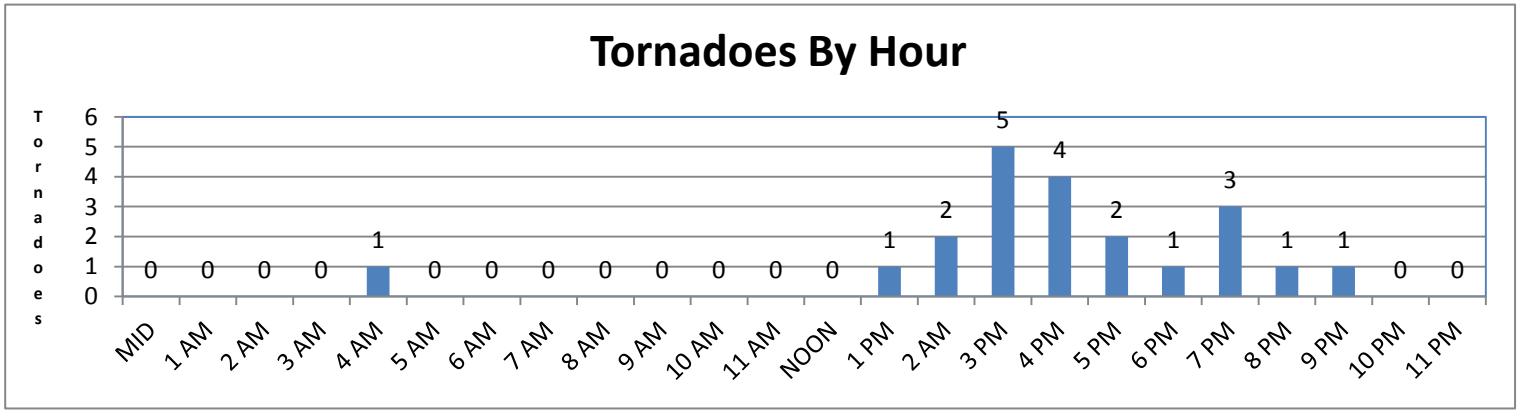


Tornadoes by Month

Documented tornadoes have occurred in Marinette County from April through September. The earliest documented tornado during the year occurred on April 21, 1974 when an F/EF-0 tornado touched down four miles north-northwest of Crivitz. The tornado season peaks in June and July, which account for sixty-two percent of all tornado reports. The warm season months of May through September account for ninety-five percent of all tornadoes during the year. The latest tornado on record during the year occurred on September 28, 1971 when an F/EF-3 tornado touched near Hewitt and travelled to near Middle Inlet.

Tornadoes by Hour

In Marinette County, twenty out of the twenty-one (ninety-five percent) documented tornadoes have occurred between 1 pm and 10 pm local standard time. There have been no documented tornadoes between midnight and 3 am and from 5 am to 1 pm local standard time. A rare night time tornado occurred on June 30, 1968 when an F/EF-1 tornado struck three miles south of Pembine at 4:45 am local standard time.



Marinette County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March, large hail is the dominant weather event that is reported to the National Weather Service. For the remainder of the convective season, reports of high winds or wind damage are a little more likely to be reported than large hail.

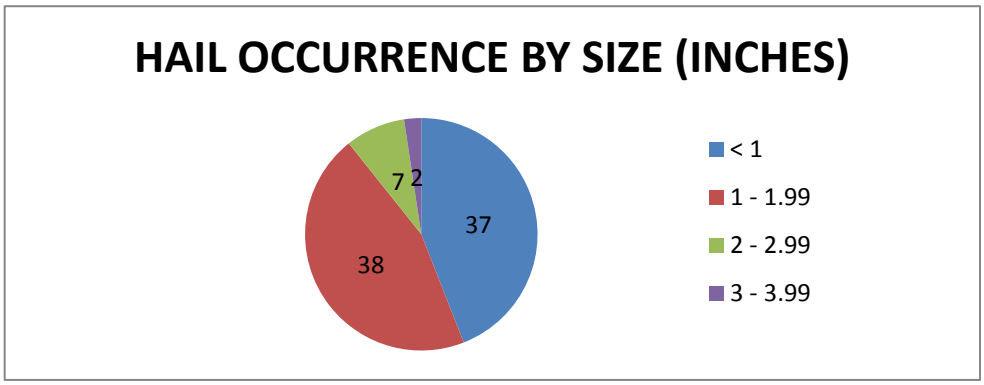
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	100	Jul	45.3	54.7
Feb	0.0	0.0	Aug	40.5	59.5
Mar	100.0	0.0	Sep	45.5	54.5
Apr	44.4	55.6	Oct	0.0	0.0
May	45.0	55.0	Nov	0.0	0.0
Jun	50.0	50.0	Dec	0.0	0.0
			Year	46.2	53.8

Large Hail in Marinette County

There have been nine documented reports of large hail two inches or greater in diameter across the county. The largest hail stone of 3.5 inches in diameter occurred ten miles west of Middle Inlet on June 8, 2000. The most recent large hail event of two inches or greater occurred on August 19, 2011 when two inch hail was reported in Goodman. Overall, hail ranging in size from three quarters to one inch accounted for seventy-four percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for eleven percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		8	19	1968	1615	2 E Harmony	3.00
2		6	8	1985	1917	Crivitz	2.75
3		6	8	1985	1943	Marinette	2.75
4		7	14	1995	1505	Athelstane	2.75
5		6	8	2000	2230	10 W Middle Inlet	3.50
6		9	11	2004	1615	Beaver to 1 E Pound	2.00
7		8	1	2006	1618	3 S Peshtigo	2.50
8		7	20	2008	2114	1.6 ENE Harmony	2.00
9		8	19	2011	1510	Goodman	2.00



Marinette County Severe Weather Facts (1950-2015)

Marinette County Summary

In Marinette County, the severe weather season begins in earnest in April and wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours. If you do experience severe weather, you are likely to see large hail early in the spring. Damaging winds or large hail is the predominant storm type in May, August and September. During June and July, the reports were evenly split between large hail and damaging winds and strong wind gusts. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Marinette County ranks tied for 12th in the total number of storm reports and tied for 11th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Marinette County Severe Weather Facts (1950-2015)

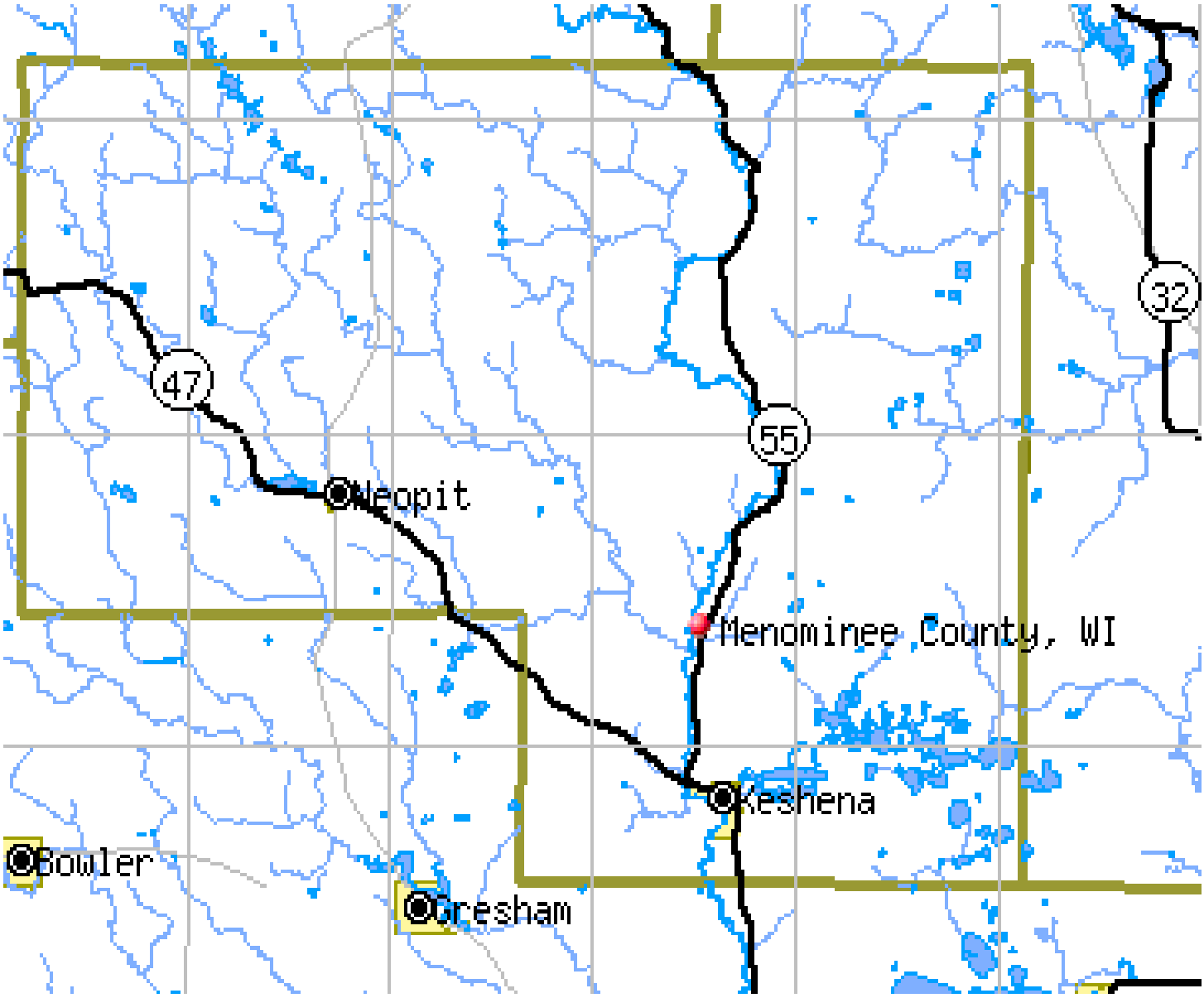
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

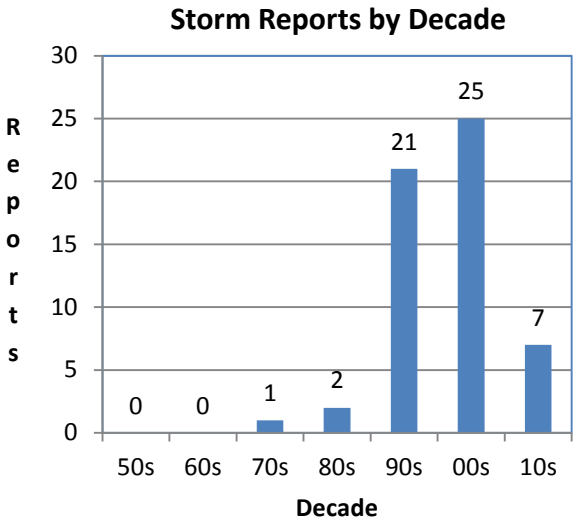
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Menominee County Severe Weather Facts (1950-2015)

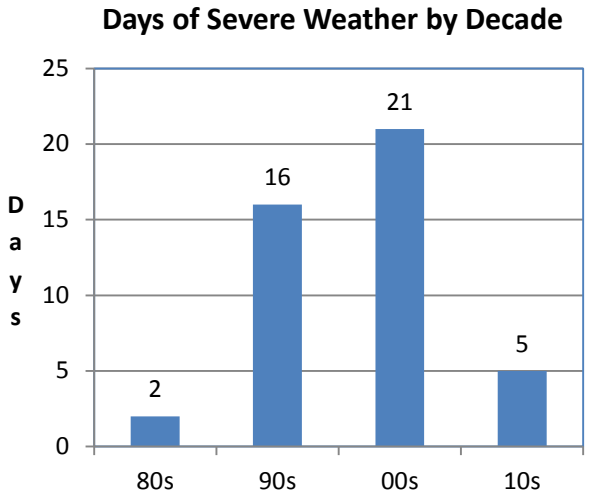


Menominee County Severe Weather Facts (1950-2015)



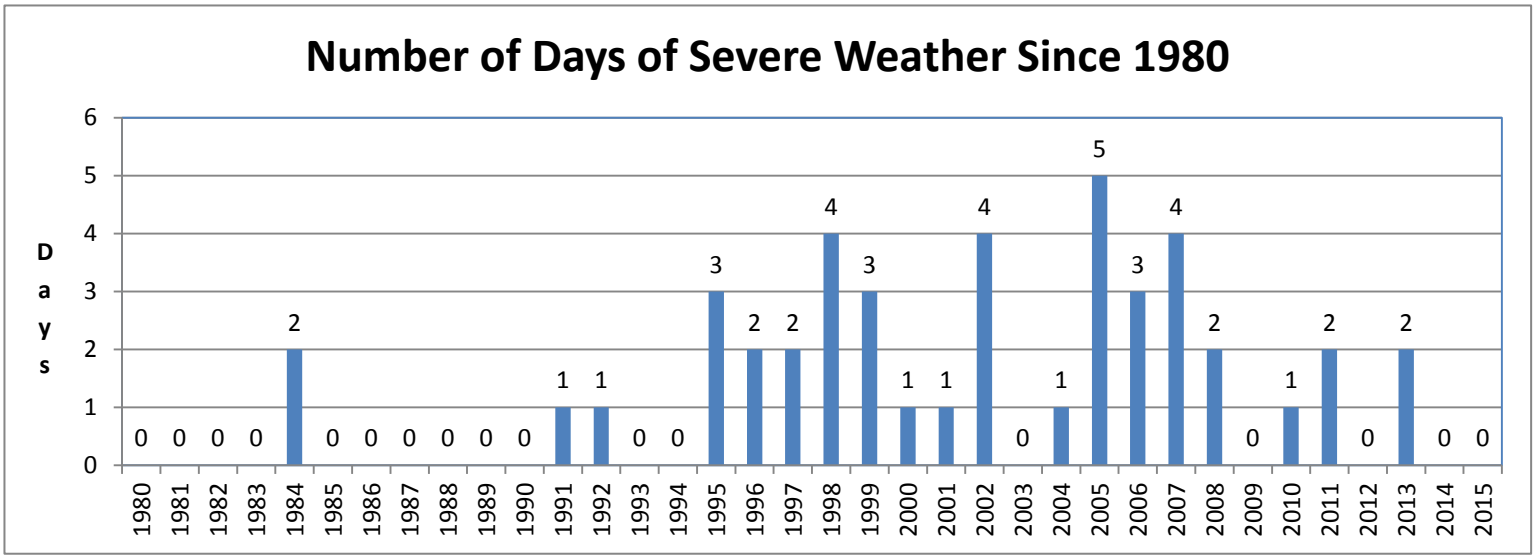
Storm Reports by Decade

Since 1950 there have been 56 documented reports of large hail, damaging winds and tornadoes across Menominee County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification. In 2014, there were no reports of severe weather across the county.



Days of Severe Weather by Decade

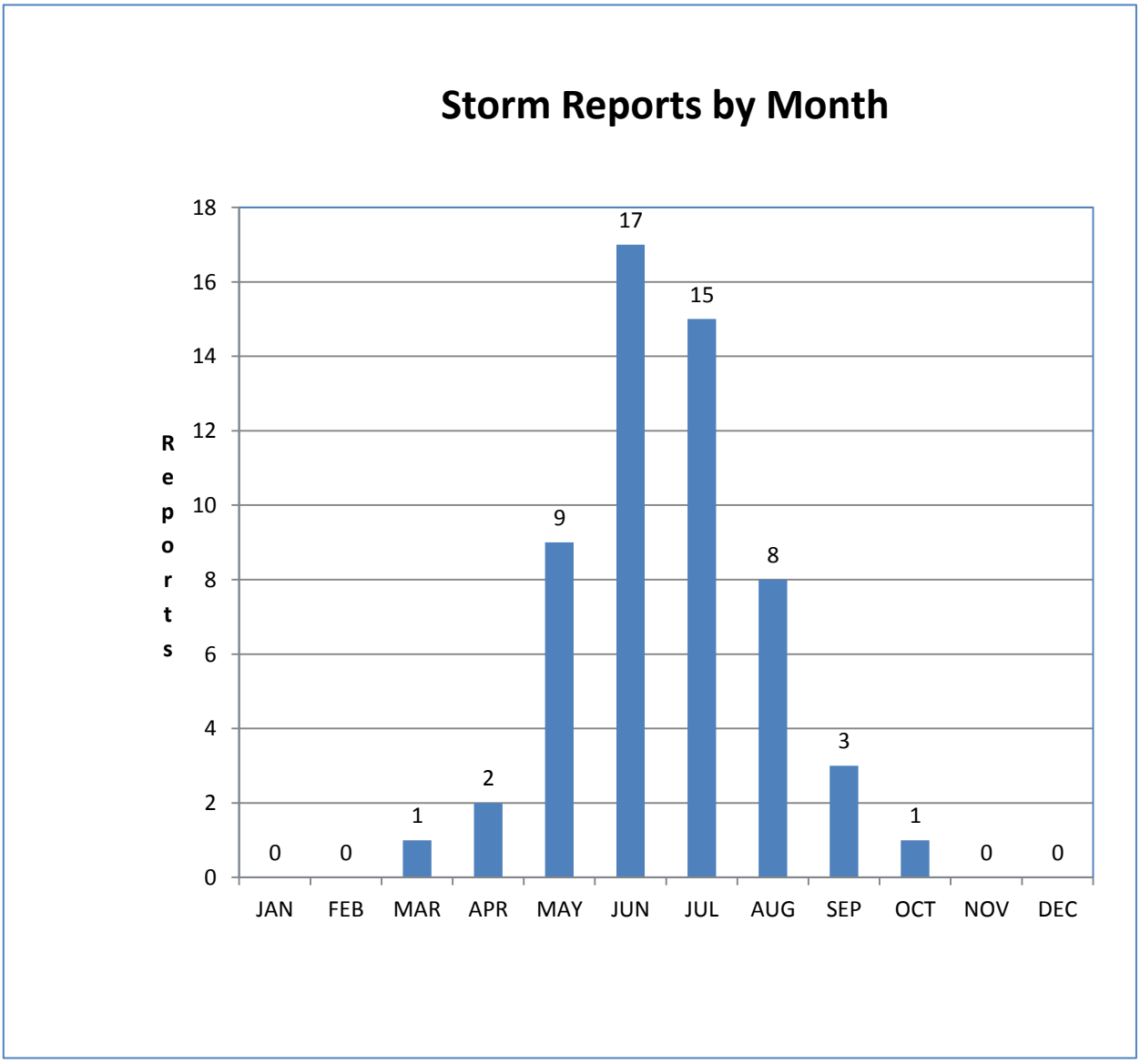
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1980s, only data from 1990 to present was used. There has been an increase of 31 percent in the number of days of severe weather from the 1990s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Menominee County averages one day of severe weather in a given year. The long term average from 1980-2015 is 1.2 days. The most active year was 2005 with 5 days of severe weather; followed by four days of severe weather in 1998, 2002 and 2007. The last report of severe weather occurred on August 13, 2013.



Menominee County Severe Weather Facts (1950-2015)

Storm Reports by Month

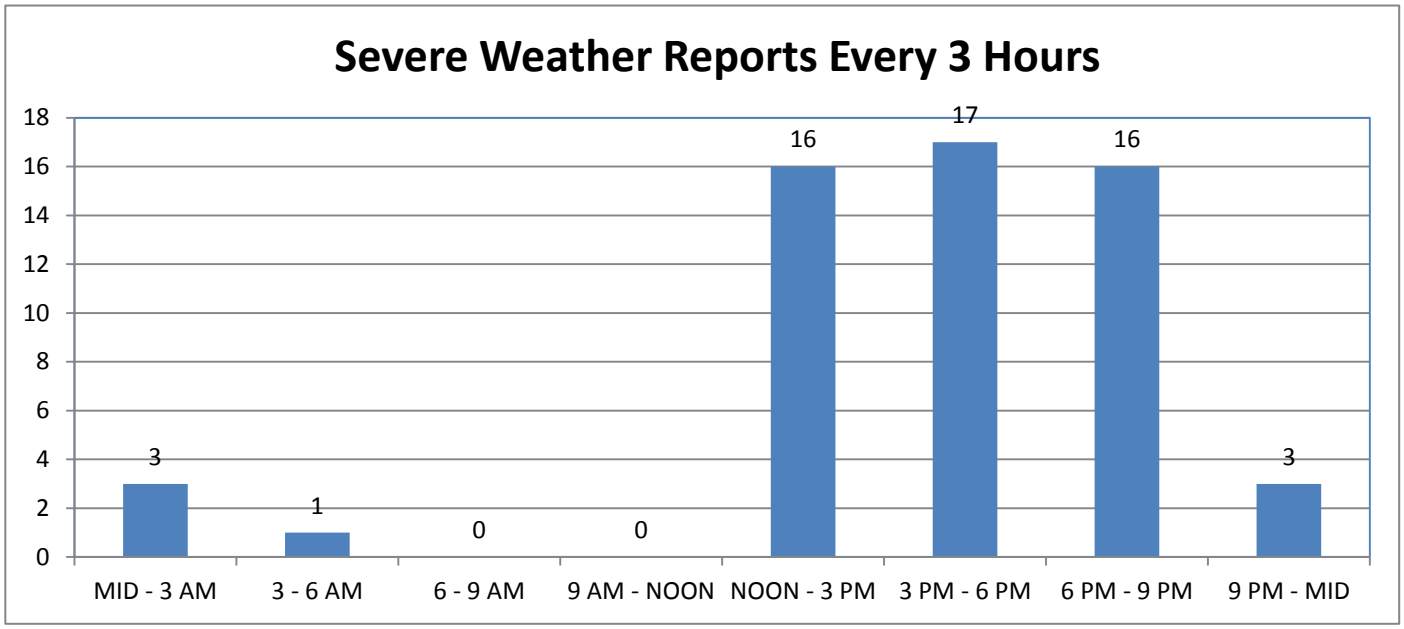
Severe weather has been documented in Menominee County from March to October. On a rare occasion, severe weather breaks out during the month of March. The earliest documented large hail report during the year occurred on March 29, 1998 when three quarter inch hail was reported in Keshena. The severe weather season begins in earnest in May and peaks in June and July. June and July account for over half (fifty-seven percent) of all severe weather reports. The severe weather season wanes quickly by September. The warm season period from May to September accounts for ninety-three percent of all reports during the year. The latest report of severe weather during the year occurred on October 3, 2006 when one inch hail was reported at Neopit.

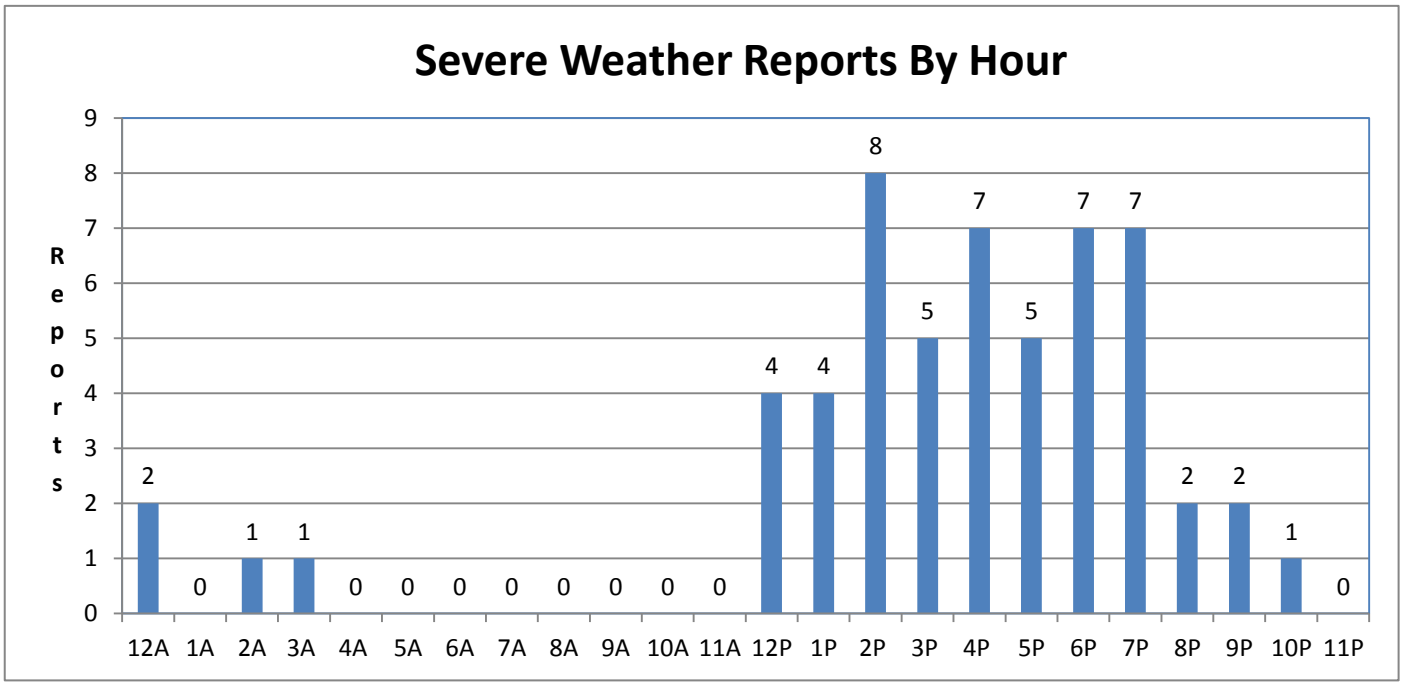


Menominee County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Menominee County. Eighty percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Menominee County, severe weather reports increased rapidly after noon. The most active time for severe weather is between 2 pm and 8 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. During May and June, there are scattered reports of severe weather between midnight and 5 am. In these cases, convection that fires up across the Dakotas and Minnesota works its way into the county overnight.

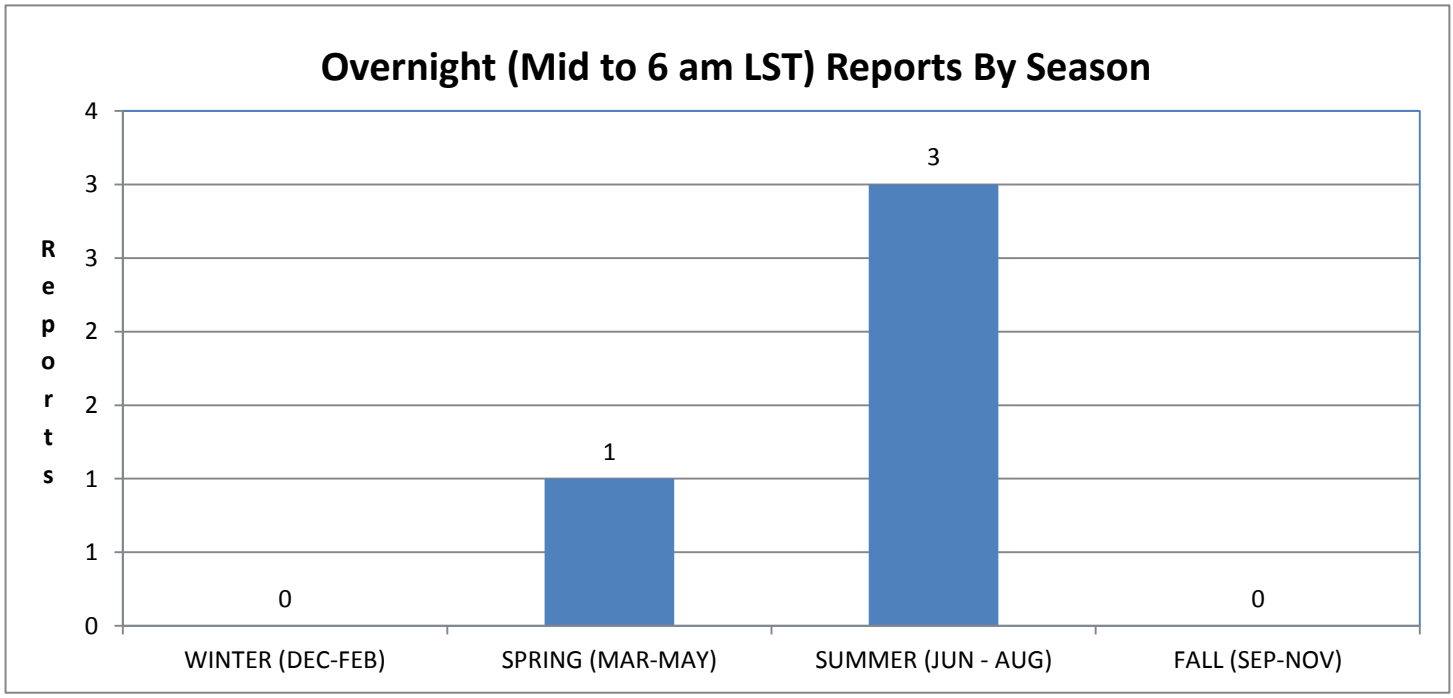




Menominee County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months accounted for 75% of all overnight severe weather reports during the year.



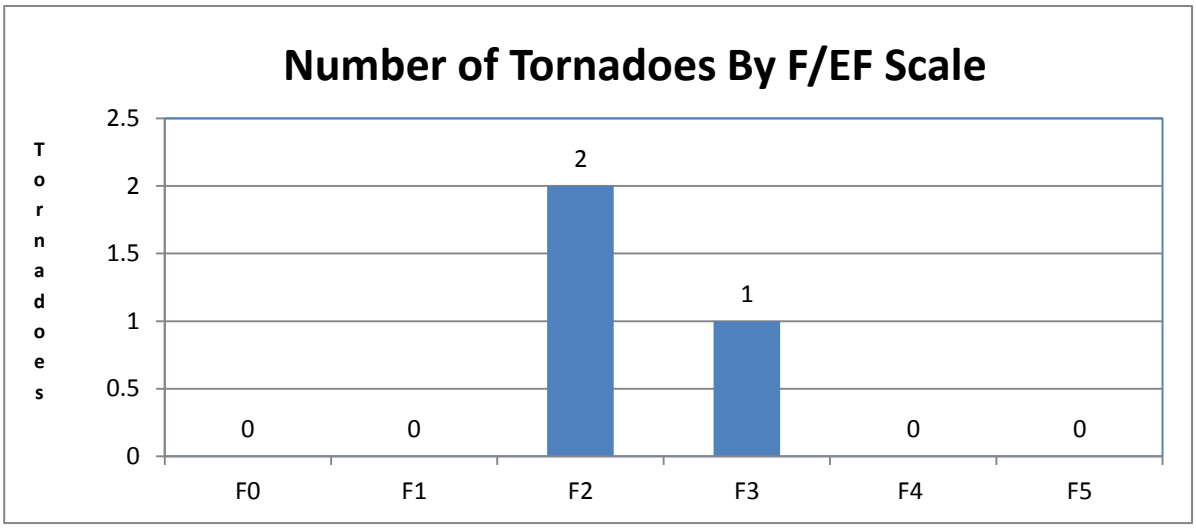
Menominee County Severe Weather Facts (1950-2015)

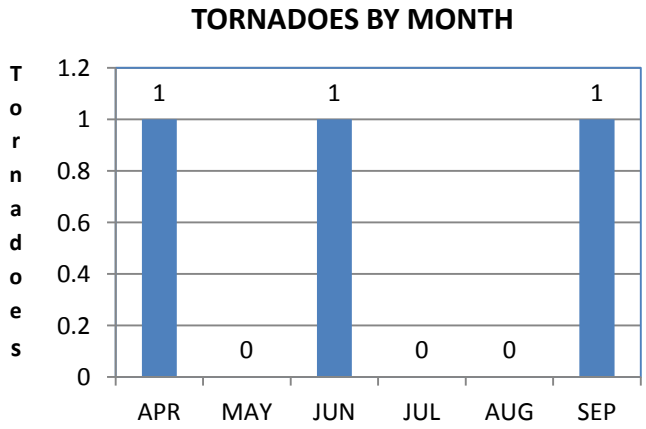
Menominee County Tornadoes

Since record keeping began in 1950, there have been three documented tornadoes in Menominee County. One tornado was ranked as an F/EF-3 tornado which occurred on April 27, 1984. The tornado touched down near Union in Waupaca County and moved northeast to near Legend Lake. The other two tornadoes were rated F/EF-2. There has not been more than one documented tornado in a given year. Since 1950, tornadoes have touched down in three different years. A tornado strike in Menominee County usually occurs once in every twenty-two years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	28	1971	1600-1720	Hewitt (Marathon Co) to near Mountain	2
2		4	27	1984	1455-1540	Union (Waupaca Co) - Legend Lake	3
3		6	7	2007	1532-1548	4 W to 9.4 W Zoar Settlement	2

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**





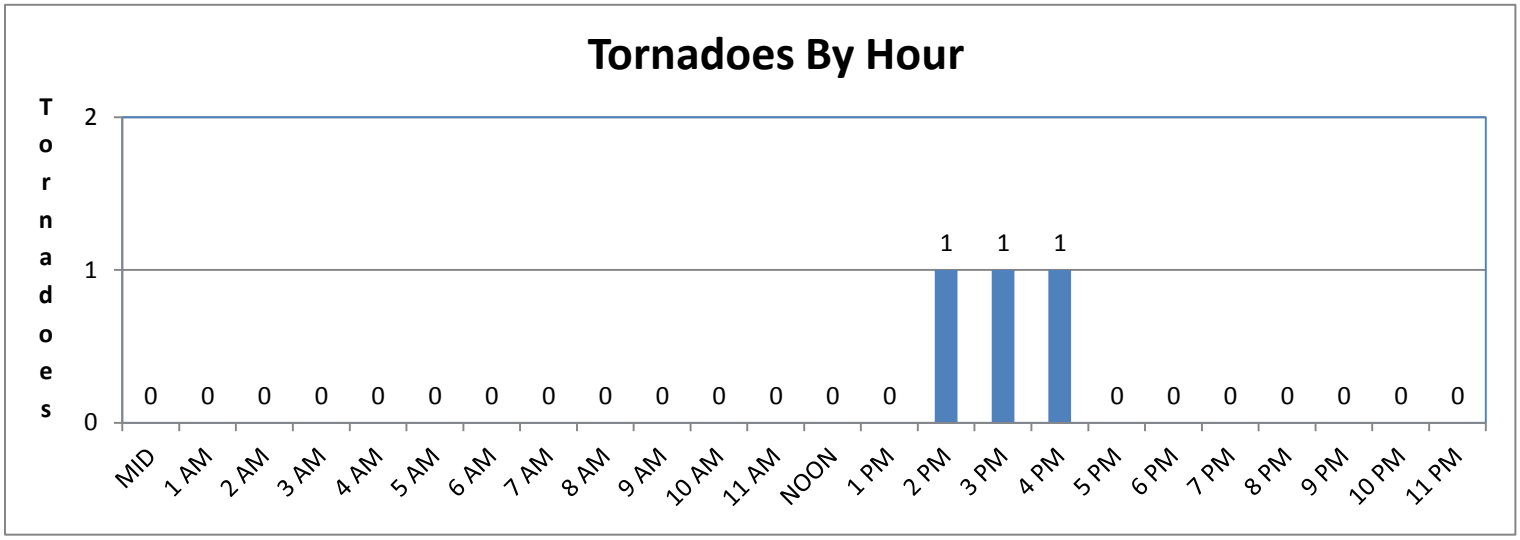
Tornadoes by Month

Tornadoes have occurred in Menominee County in April, June and September. The earliest documented tornado during the year occurred on April 27, 1984 when a tornado touched down near Union in Waupaca County and travelled to near Legend Lake. The latest tornado on record during the year occurred on September 28, 1971 when an F/EF-2 tornado touched down near Hewitt in Marathon County and moved northeast across Shawano and Menominee Counties before dissipating near Mountain.

Menominee County Severe Weather Facts (1950-2015)

Tornadoes by Hour

In Menominee County, the three documented tornadoes have occurred between 2 pm and 5 pm local standard time. There have been no documented tornadoes between the 5 pm to 2 pm local standard time.



Predominant Storm Reports – Wind and Hail Only

During March and October, large hail is the predominant storm type. The atmosphere is typically colder during this time of year to support large hail reaching the ground. During the remainder of the convective season, reports of strong winds or wind damage are the predominant storm report. Out of all reports, nearly eight out of ten reports are strong wind gusts and or wind damage. The counties of Shawano and Menominee have the highest percentage of reports due to strong winds or wind damage across north central and northeast Wisconsin.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	13.3	86.7
Feb	0.0	0.0	Aug	12.5	87.5
Mar	100.0	0.0	Sep	0.0	100.0
Apr	0.0	100.0	Oct	100.0	0.0
May	33.3	66.7	Nov	0.0	0.0
Jun	12.5	87.5	Dec	0.0	0.0
			Year	18.9	81.1

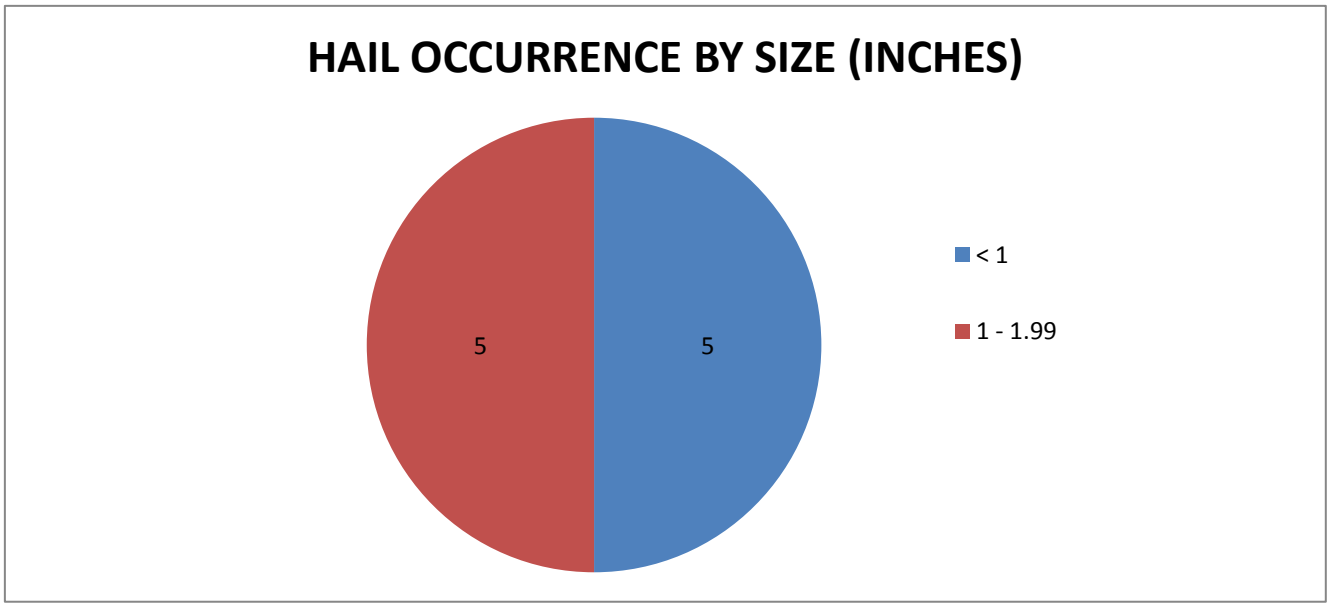
Menominee County Severe Weather Facts (1950-2015)

Large Hail in Menominee County

There have been zero documented reports of hail over two inches in diameter across the county. The largest hail stone of 1.75 inches was documented fifteen miles north northeast of Keshena on May 12, 1998. The last hail report of an inch or greater occurred in Neopit on June 20, 2007.

Hail over 1.5 inches

		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		5	12	1998	2105	15 NNE Keshena	1.75



Menominee County Severe Weather Facts (1950-2015)

Menominee County Summary

In Menominee County, the severe weather season begins in earnest in May and wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during May and June. If you do experience severe weather, you are likely to see large hail in March and October. During the remainder of the convective season, nearly eight out ten reports are wind damage or reports of strong wind gusts. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Menominee County ranks 22nd in the total number of storm reports and tied for 21st in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Menominee County Severe Weather Facts (1950-2015)

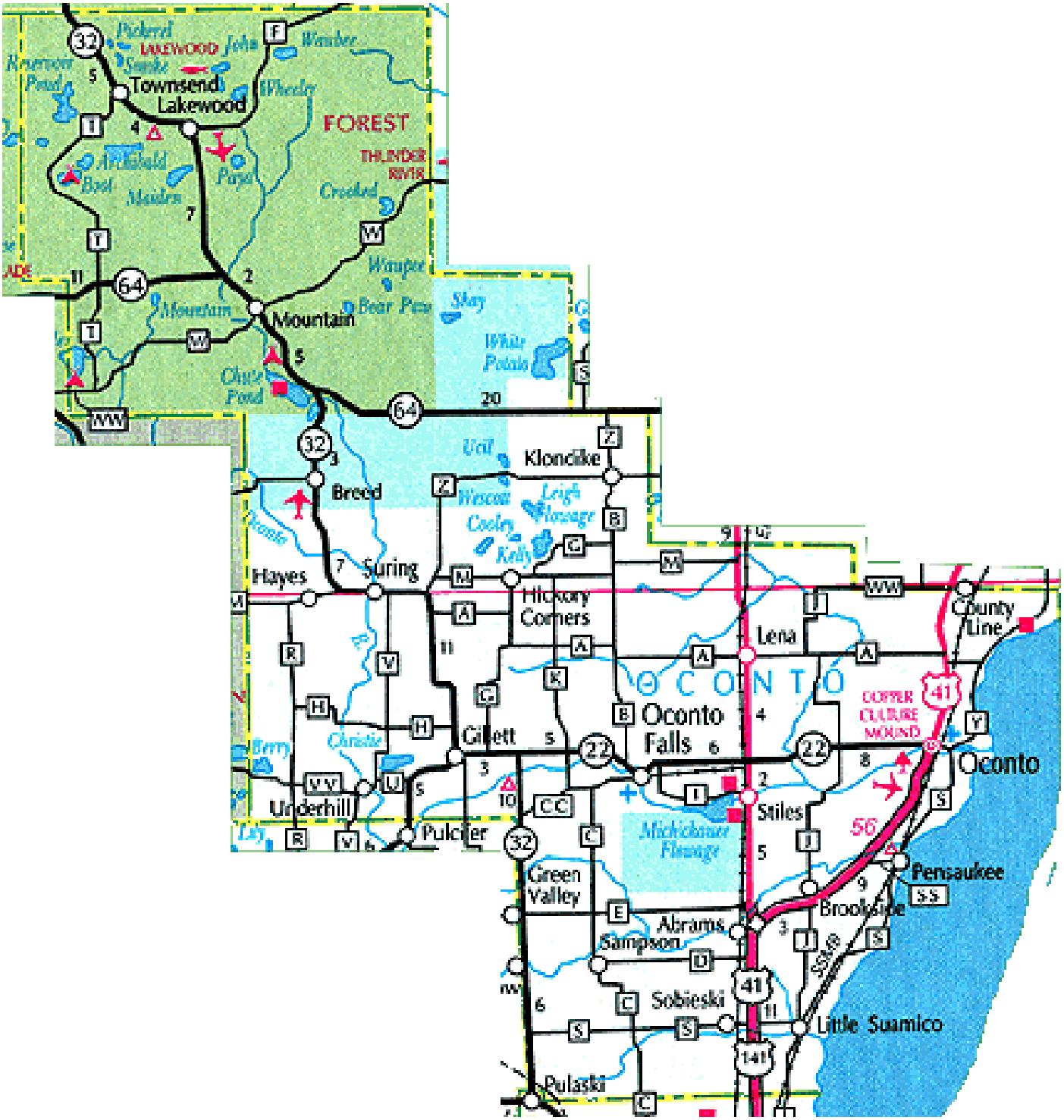
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

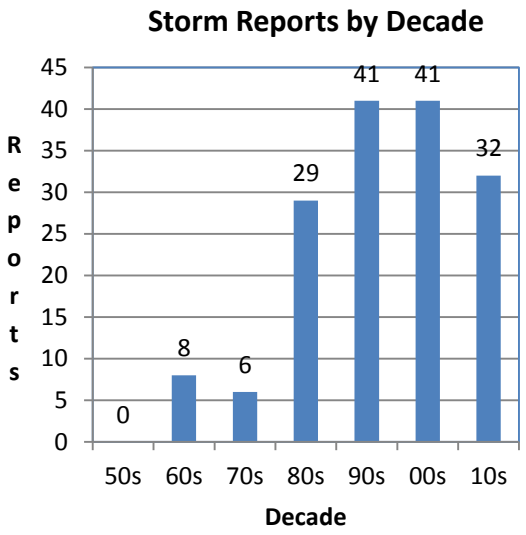
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Oconto County Severe Weather Facts (1950-2015)

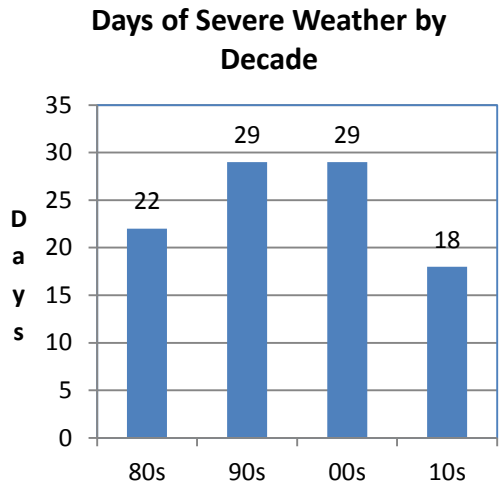


Oconto County Severe Weather Facts (1950-2015)



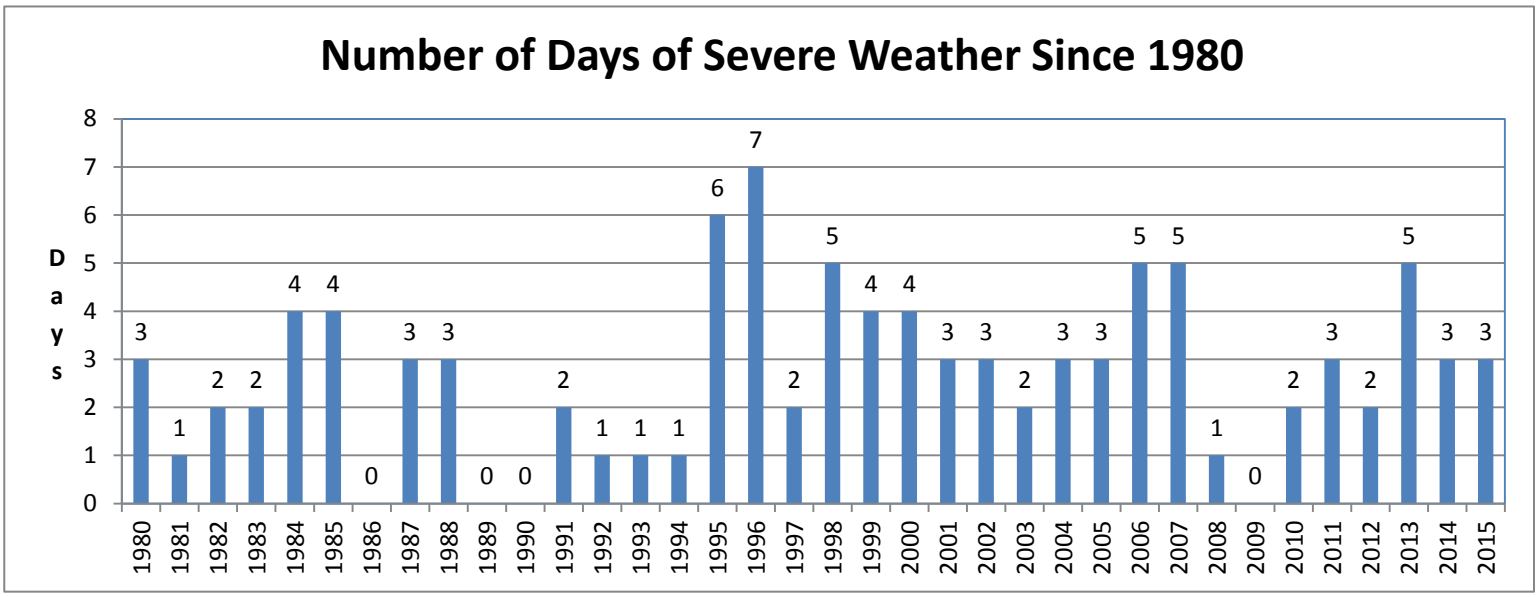
Storm Reports by Decade

Since 1950 there have been 157 documented reports of large hail, damaging winds and tornadoes across Oconto County The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 41 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

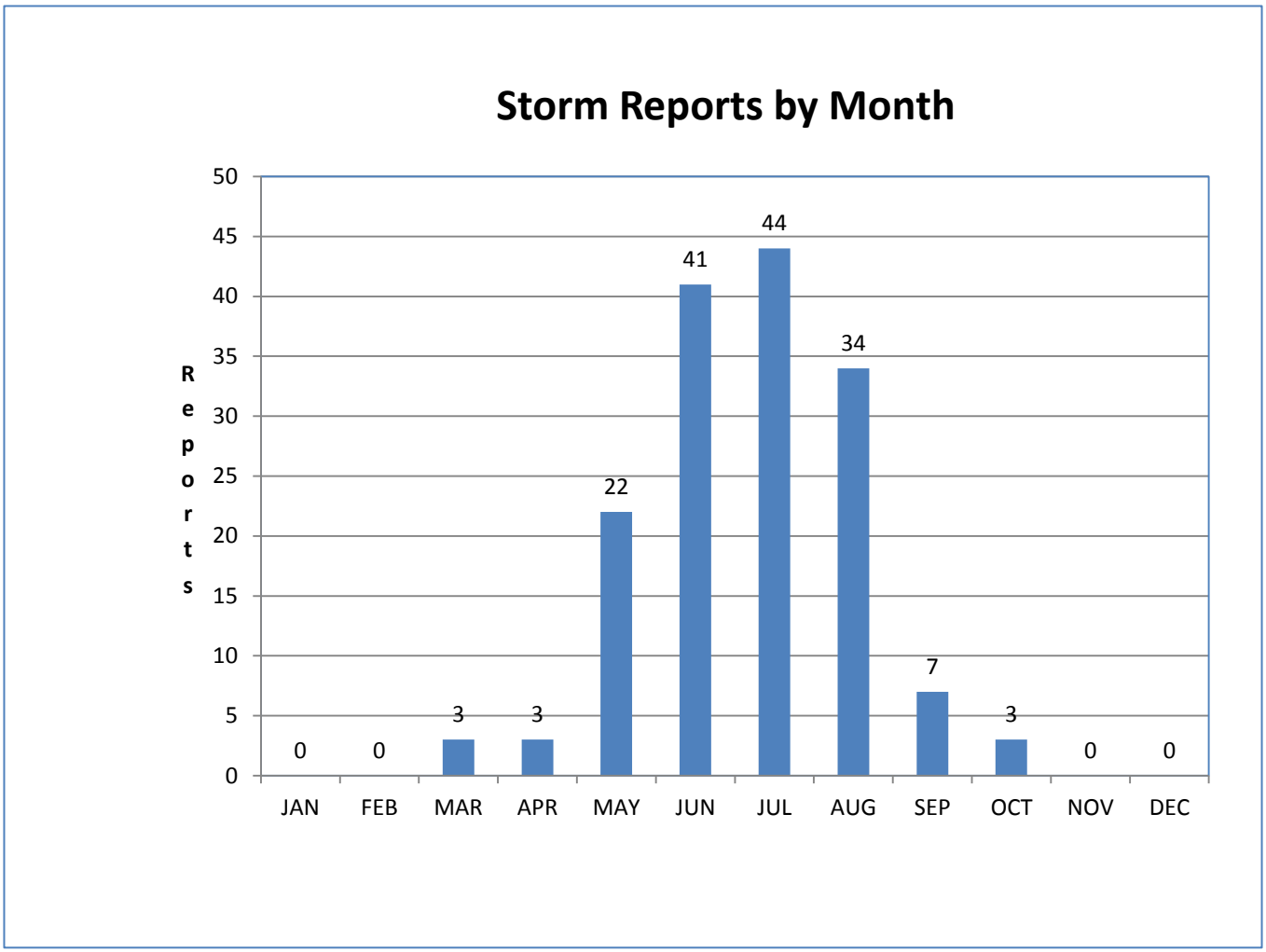
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 32 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Oconto County averages three days of severe weather in a given year. The long term average from 1980-2015 is 2.7 days. The most active year was 1996 with seven days of severe weather; followed by six days of severe weather in 1995 and five days in 1998, 2006, 2007 and 2013.



Oconto County Severe Weather Facts (1950-2015)

Storm Reports by Month

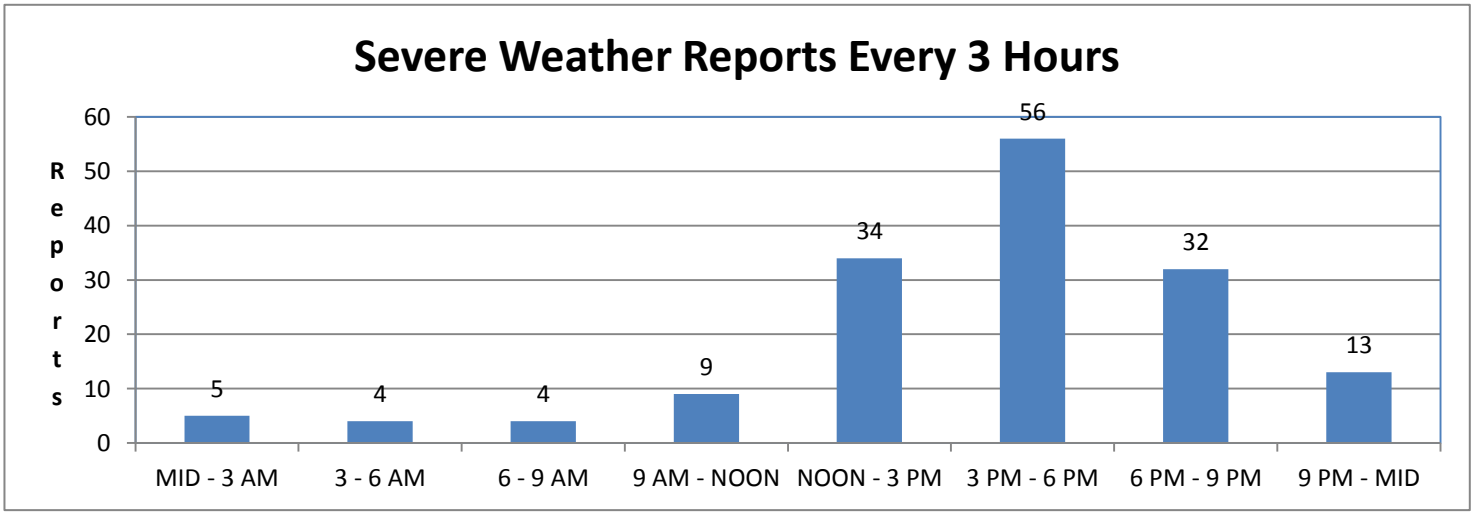
Severe weather has been documented in Oconto County from March through October. A rare event can occur in March. The earliest documented report of severe weather during the year occurred on March 29, 1998. Golf ball to baseball size hail was reported in Oconto, Lena, and Gillett. The severe weather season begins in earnest in May. The heart of the convective season is June and July, which accounts for fifty-four percent of all severe weather reports. The severe weather season quickly wanes by September. The warm season period of May through September accounts for 94 percent of all severe weather reports during the year. Severe weather can occur from time to time in September while events in October are rare. The latest report of severe weather during the year occurred on October 16, 1984 when wind damage was reported one mile southeast of Gillett.

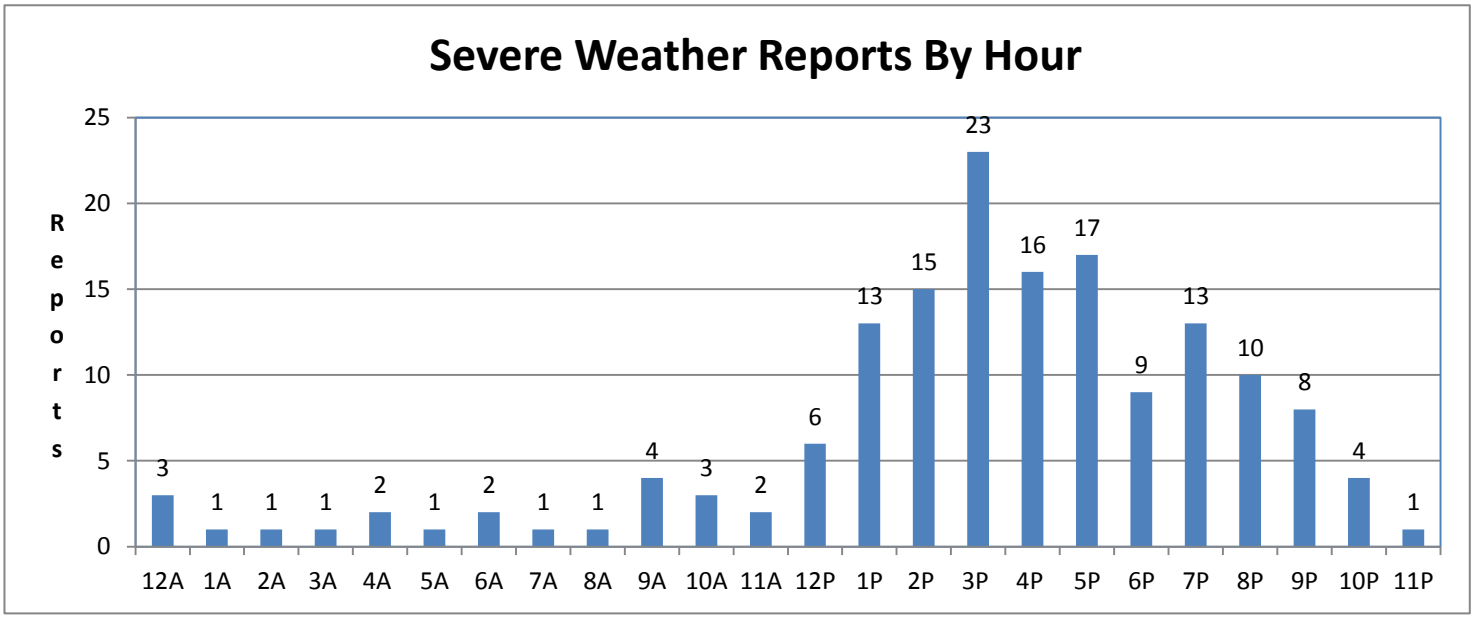


Oconto County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Oconto County. Seventy-four percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Oconto County, severe weather reports increased after 1 pm with a peak between 3 pm and 6 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. Between May and September, isolated reports were noted between midnight and 5 am. In these events, thunderstorms across the plains or Minnesota move into the county overnight.

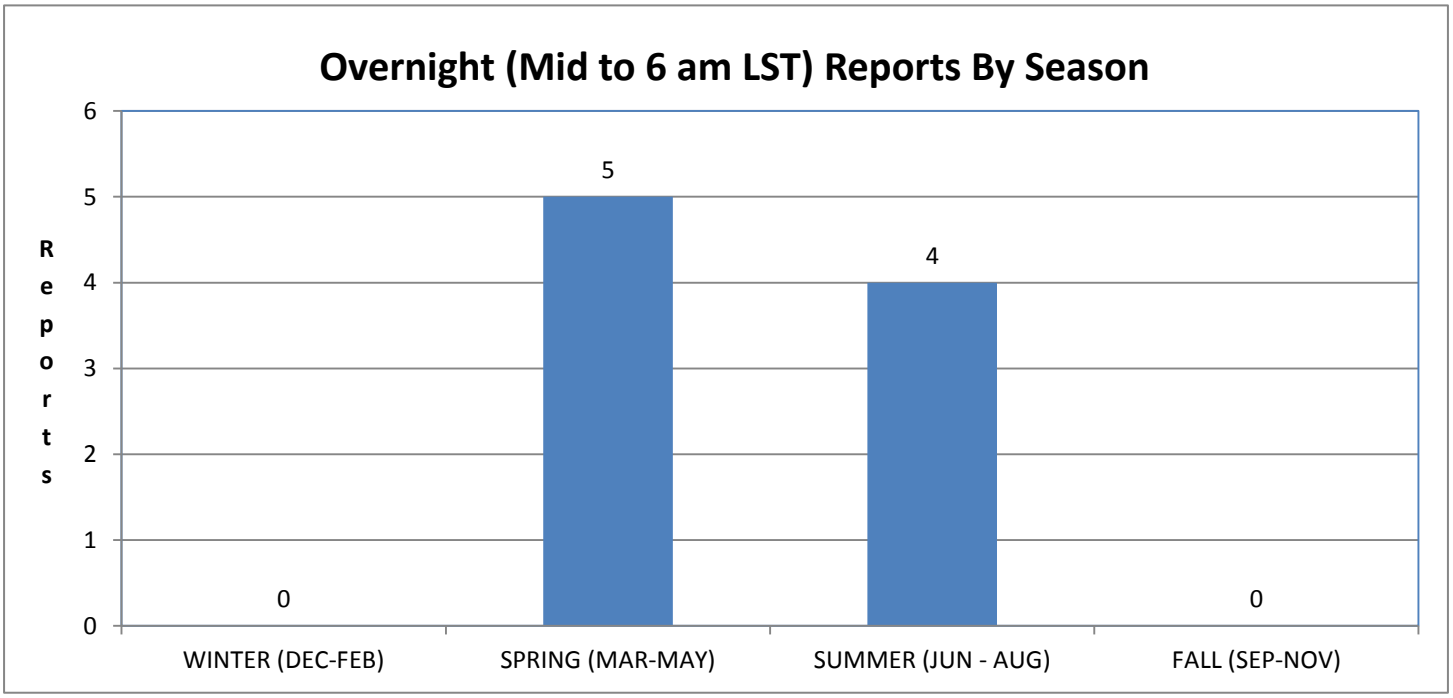




Oconto County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

The spring and summer months (March through August accounted for all the overnight severe weather reports. Typical, overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours.



Oconto County Severe Weather Facts (1950-2015)

Oconto County Tornadoes

Since record keeping began in 1950, there have been twelve documented tornadoes in Oconto County. Of the twelve tornadoes, there have been two documented F/EF-3 tornadoes. The last F/EF-3 tornado to strike the county occurred on September 28, 1971. The tornado touched down near Hewitt and lifted up near Middle inlet in Marinette County. Four tornadoes were rated F/EF-2 intensity (see table below) while six tornadoes were rated F/EF-0 or F/EF-1. The most active year was 1966 with two tornadoes. A tornado was reported across Oconto County in consecutive years during 1979 and 1980. The last tornado to strike the county occurred on July 6, 2015 when an F/EF-0 tornado touched down 2.2 miles east-northeast of Gillett and traveled to 2.6 miles south-southwest of Kelly Brook before dissipating. Since 1950, tornadoes have touched down in eleven different years. A tornado strike in Oconto County occurs on average every five and a half years.

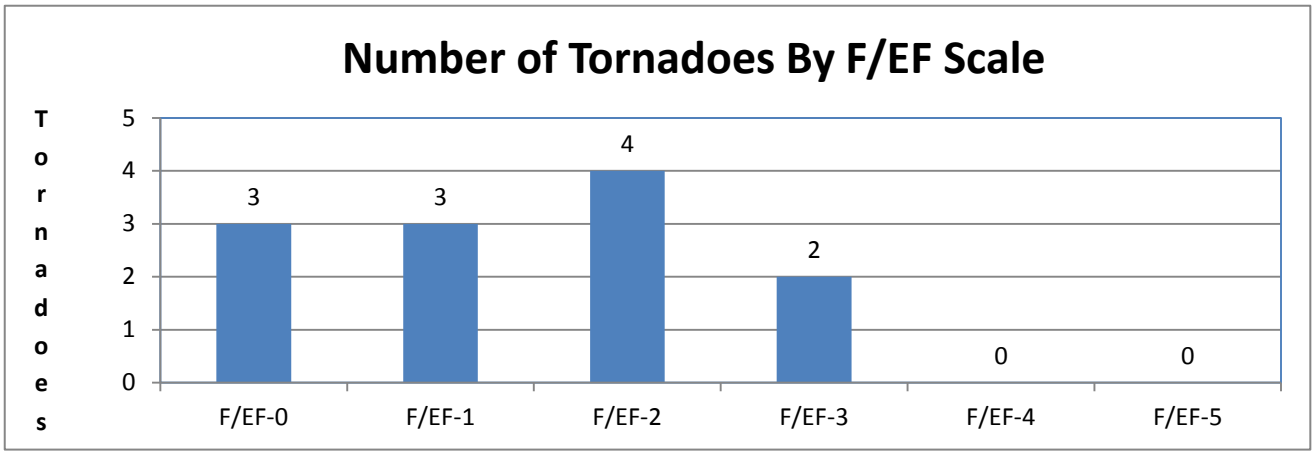
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	4	1966	1900	Gillett - 2 NE Oconto Falls	2
2		6	4	1966	1900	Suring	2
3		6	26	1969	1115-1130	3 W Seymour - 8 W Sobieski	3
4		9	28	1971	1620-1720	Hewitt - Middle Inlet	3
5		6	14	1974	1610	5 NW Gillett	1
6		6	13	1976	2015	Oconto Falls	1
7		6	16	1979	0930	Oconto Falls - 2 NE Lena	2
8		5	30	1980	1520	Oconto	1
9		4	25	1996	1755-1757	2 W Pensaukee	0
10		6	7	2007	1531-1618	7.8 W Mountain to 9.5 ENE Lakewood	2
11		7	9	2013	1850-1854	4.4 NE - 5.2 NNE Oconto	0
12		7	6	2015	1656-1703	2.2 ENE Gillett - 2.6 SSW Kelly Brook	0

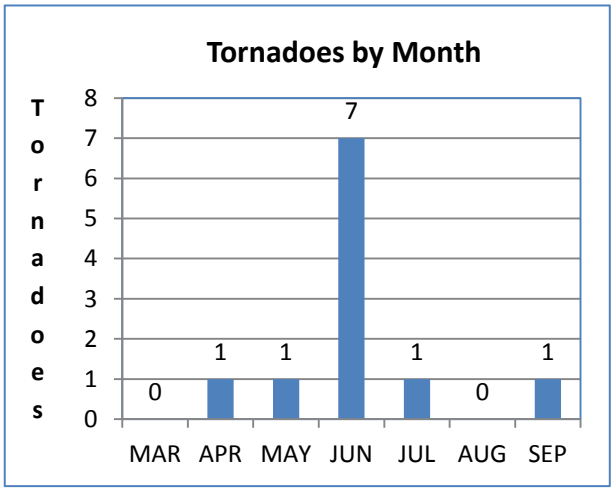
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

F/EF-2 or Greater Tornadoes in Oconto County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	4	1966	1900	Gillett - 2 NE Oconto Falls	2
2		6	4	1966	1900	Suring	2
3		6	26	1969	1115-1130	3 W Seymour to 8 W Sobieski	3
4		9	28	1971	1620-1720	Hewitt - Middle Inlet	3
7		6	16	1979	0930	Oconto Falls - 2 NE Lena	2
10		6	7	2007	1531-1618	7.8 W Mountain to 9.5 ENE Lakewood	2

Oconto County Severe Weather Facts (1950-2015)



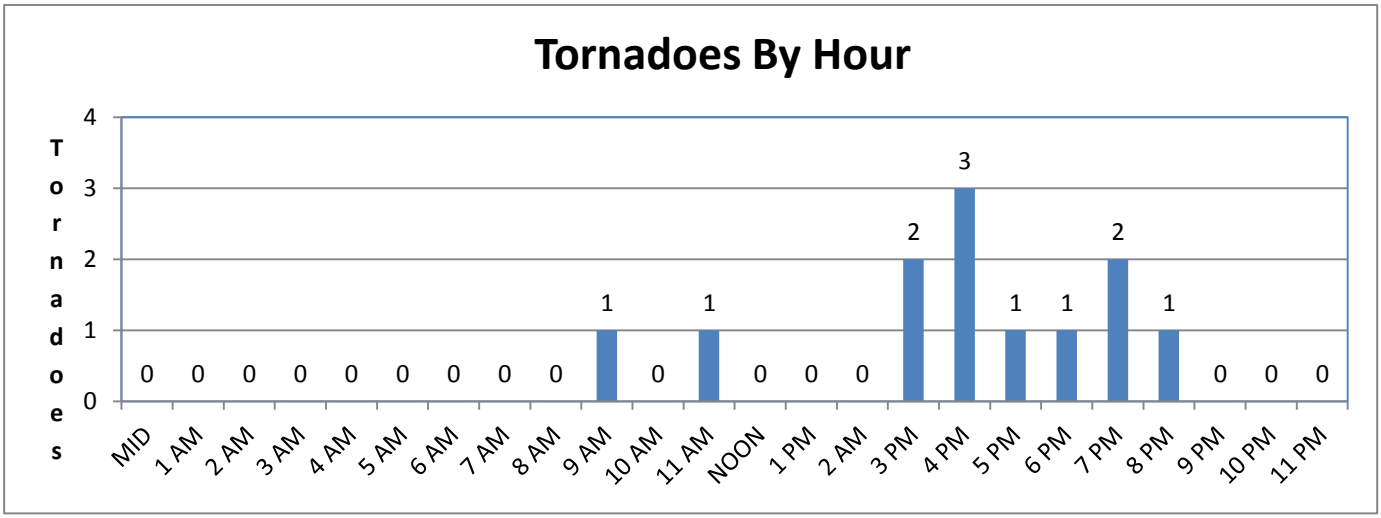


Tornadoes by Month

Documented tornadoes have occurred in Oconto County in April, May, June, July and September. The earliest documented tornado during the year occurred on April 25, 1996 when an F/EF-0 tornado touched down two miles west of Pensaukee. The tornado season peaks in June, which accounts for fifty-eight percent of all tornado reports. The warm season months of May through September account for all but one tornado report during the year. The latest tornado on record during the year occurred on September 28, 1971 when an F/EF-3 tornado touched near Hewitt and travelled to near Middle Inlet in Marinette County.

Tornadoes by Hour

In Oconto County, ten out of the twelve (eighty-three percent) documented tornadoes have occurred between 3 pm and 9 pm local standard time. There have been no documented tornadoes between the 9 pm to 9 am local standard time.



Oconto County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During the spring (March into April), large hail is the dominant weather event that is reported to the National Weather Service. The atmosphere is cold aloft to support large hail reaching the ground. For the summer months of June through August, over 6 out of 10 reports were strong wind gusts and wind damage compared to large hail. Overall, nearly six out of ten reports during the year are strong wind gusts and wind damage.

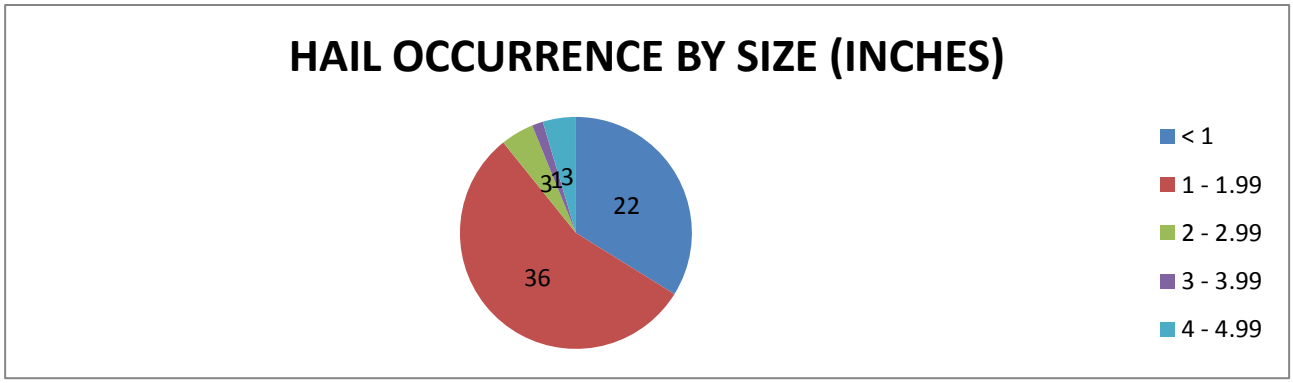
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	35.7	64.3
Feb	0.0	0.0	Aug	44.1	55.9
Mar	100.0	0.0	Sep	83.3	16.7
Apr	50.0	50.0	Oct	66.7	33.3
May	57.1	42.9	Nov	0.0	0.0
Jun	41.2	58.8	Dec	0.0	0.0
			Year	46.2	53.8

Large Hail in Oconto County

There have only been seven documented reports of hail two inches or greater in diameter across the county. The largest hail stone of four inches in diameter was reported from one mile north of Hayes to Suring on July 1, 2006, and twice in 2015 when four inch hail was reported a half mile east of Abrams and nearly three miles south of Brookside on August 2nd. Overall, hail ranging in size from three quarters to one inch accounted for sixty-five percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for eleven percent of the total large hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		3	29	1998	1515	1 N Oconto	2.75
2		7	1	2006	1431	1 N Hayes to Suring	4.00
3		7	1	2006	1505	Oconto to 6 SE Oconto Falls	3.25
4		7	30	2012	1630	1.6 ENE Chase	2.00
5		8	2	2015	1324	0.5 E Abrams	4.00
6		8	2	2015	1332	2.8 ESE Brookside	2.50
7		8	2	2015	1332	2.8 S Brookside	4.00



Oconto County Severe Weather Facts (1950-2015)

Oconto County Summary

In Oconto County, the severe weather season begins in earnest in May, peaks in June/July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 5 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring. Damaging winds or strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Oconto County ranks 18th in the total number of storm reports and tied 17th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Oconto County Severe Weather Facts (1950-2015)

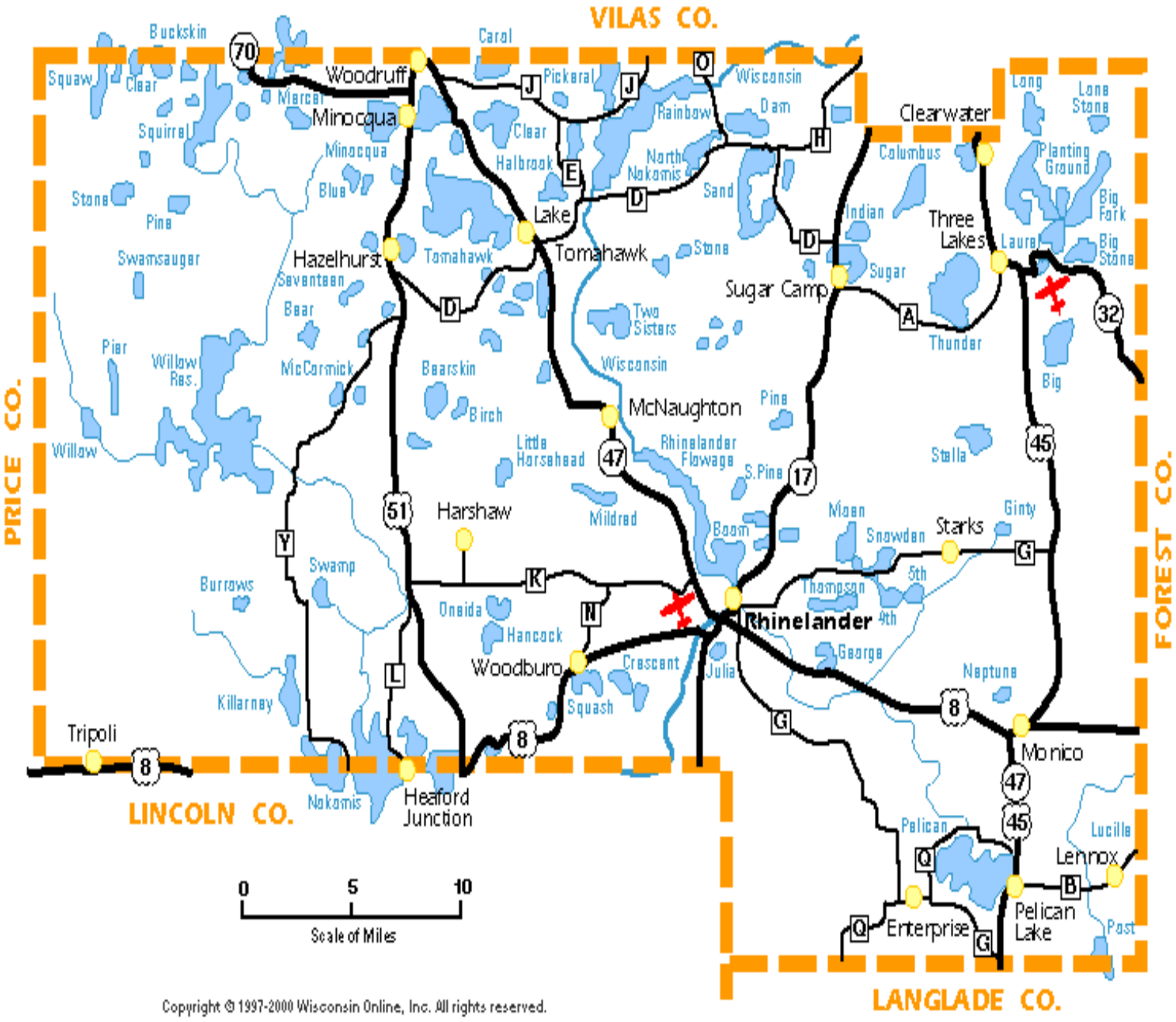
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Oneida County Severe Weather Facts (1950-2015)



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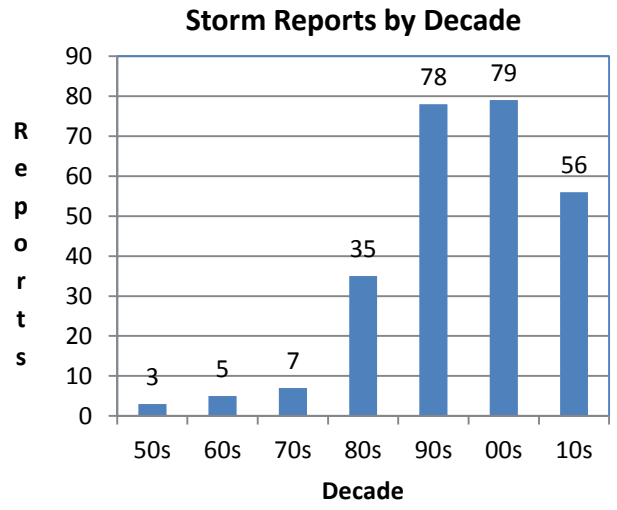
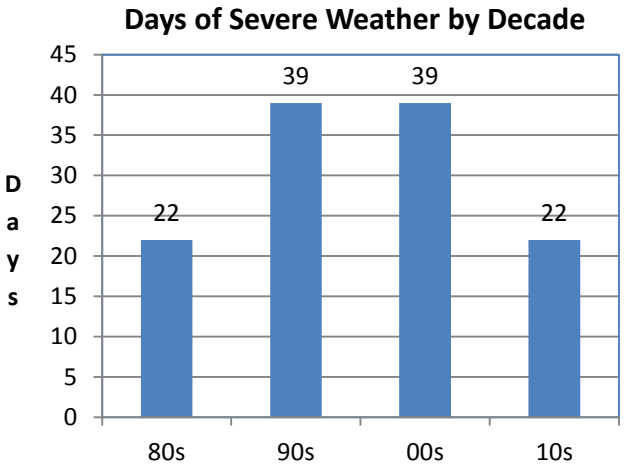
Oneida County Severe Weather Facts (1950-2015)



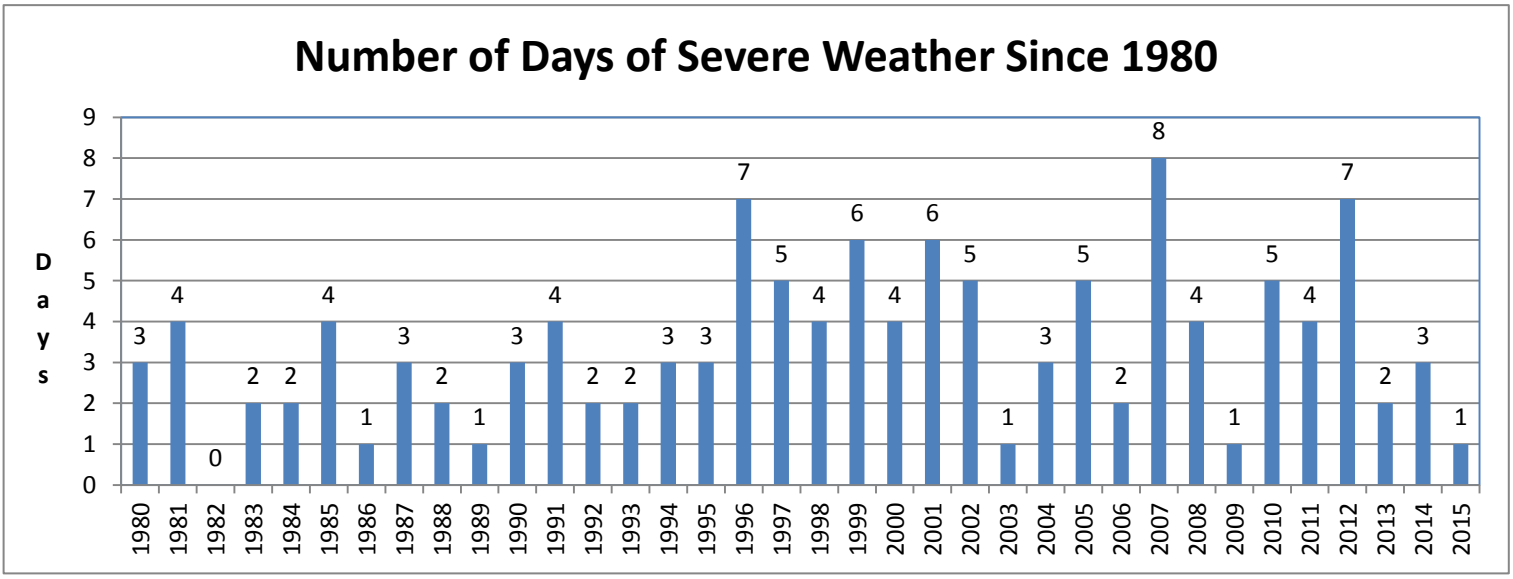
Storm Reports by Decade

Since 1950 there have been 263 documented reports of large hail, damaging winds and tornadoes across Oneida County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 126 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification. Fourteen out of the fifteen severe weather reports in 2014 occurred on September 4th.



Days of Severe Weather by Decade

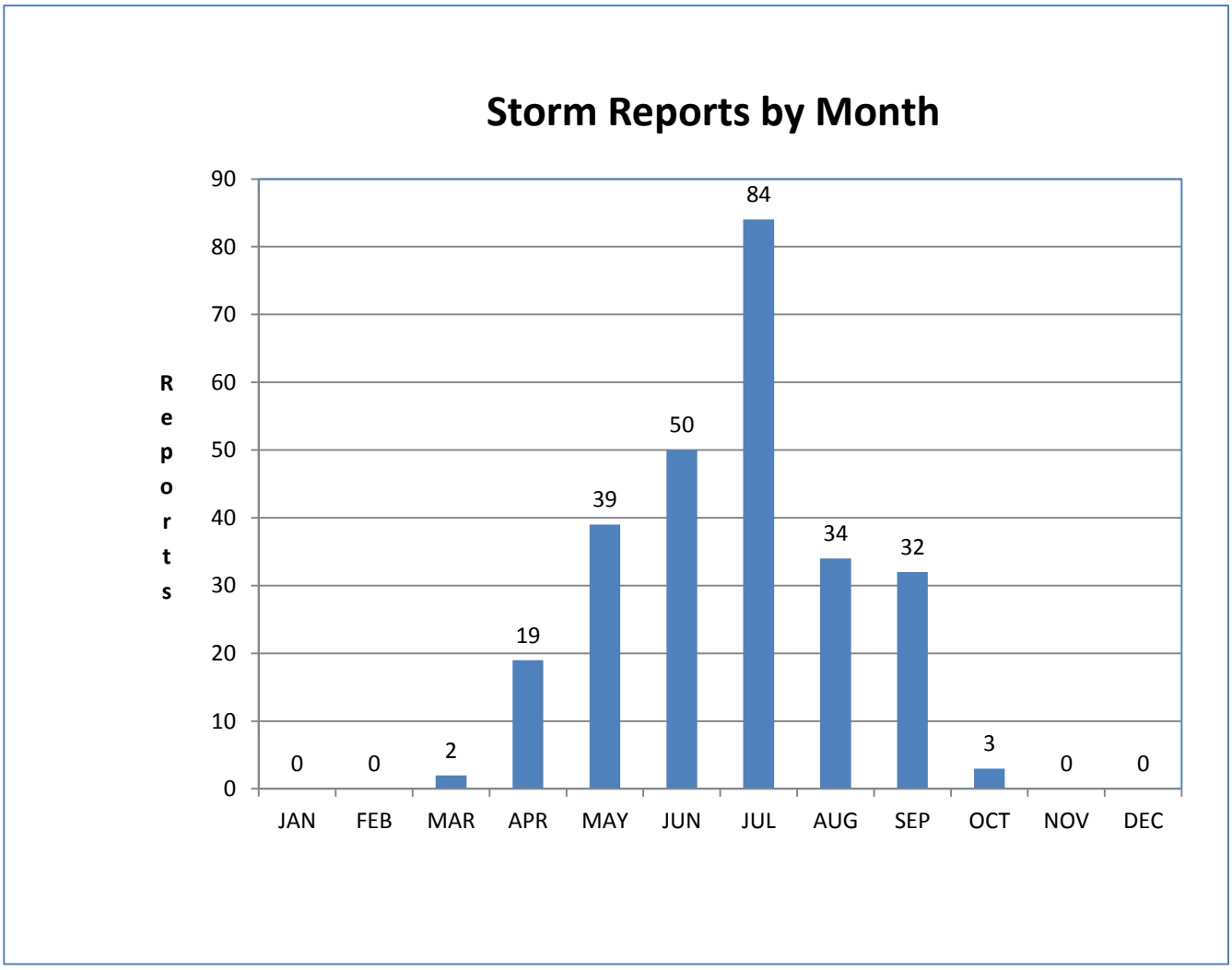
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 77 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Oneida County averages 3.7 days of severe weather in a given year. The long term average from 1980-2015 is 3.4 days. The most active year was 2007 with eight days of severe weather; followed by seven days of severe weather in 1996 and 2012, and six days in 1999 and 2001.



Oneida County Severe Weather Facts (1950-2015)

Storm Reports by Month

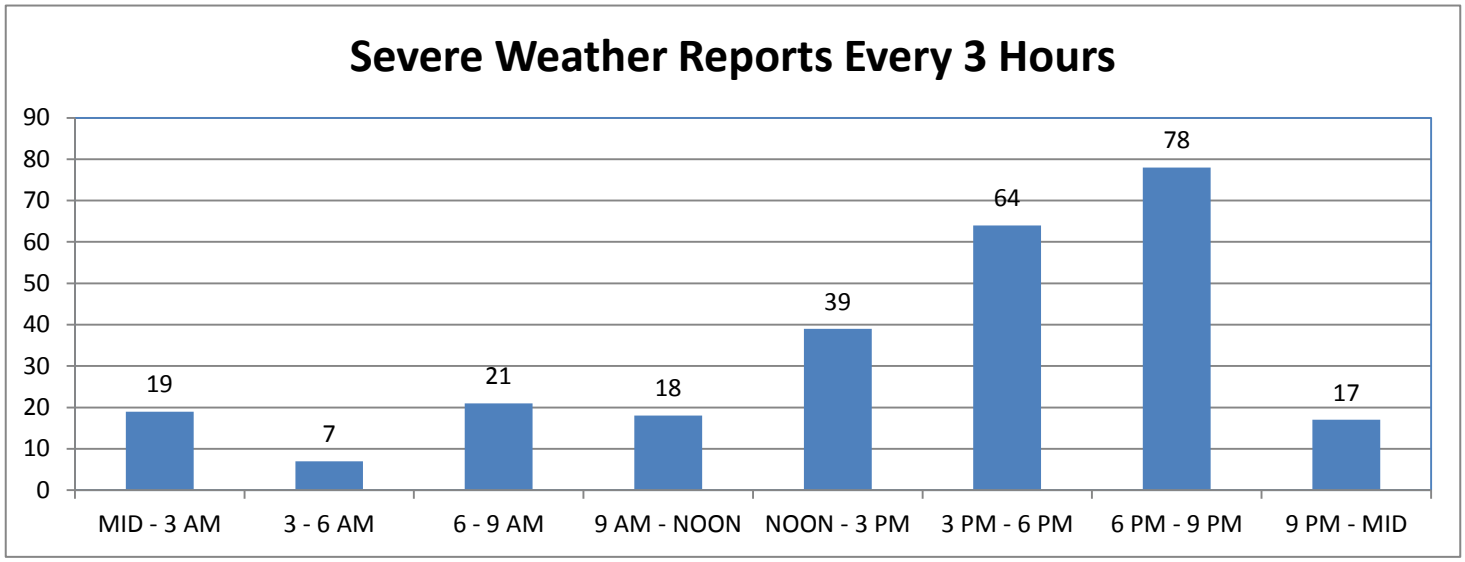
Severe weather has been recorded in Oneida County from March through October. A rare event can occur in March. The earliest documented report of severe weather during the year occurred on March 29, 1998. Nickel size hail was reported near Rhinelander while damaging winds were reported near Harshaw. The severe weather season begins in earnest in April. The heart of the convective season occurs from May through July, which accounts for sixty-six percent of all severe weather reports. July is the peak month for severe weather and then quickly wanes by September. The warm season period of May through September accounts for ninety-one percent of all severe weather reports during the year. In 2014, all fifteen reports were documented in September (1 on September 3rd and 14 on September 4th). Severe weather can occur from time to time in September while events in October are rare. The latest report of severe weather during the year occurred on October 29, 2004 when wind damage was reported two miles southwest of Woodboro. In 2012, there was a rare late season reports of severe weather on October 25th. A gust to 50 knots was reported at the Rhinelander airport at 7:34 am LST and a report of 0.88 inch hail 4.8 miles west northwest of Roosevelt at 7:35 am LST. In 2015, all the severe weather reports were noted on August 2nd when large hail was reported.

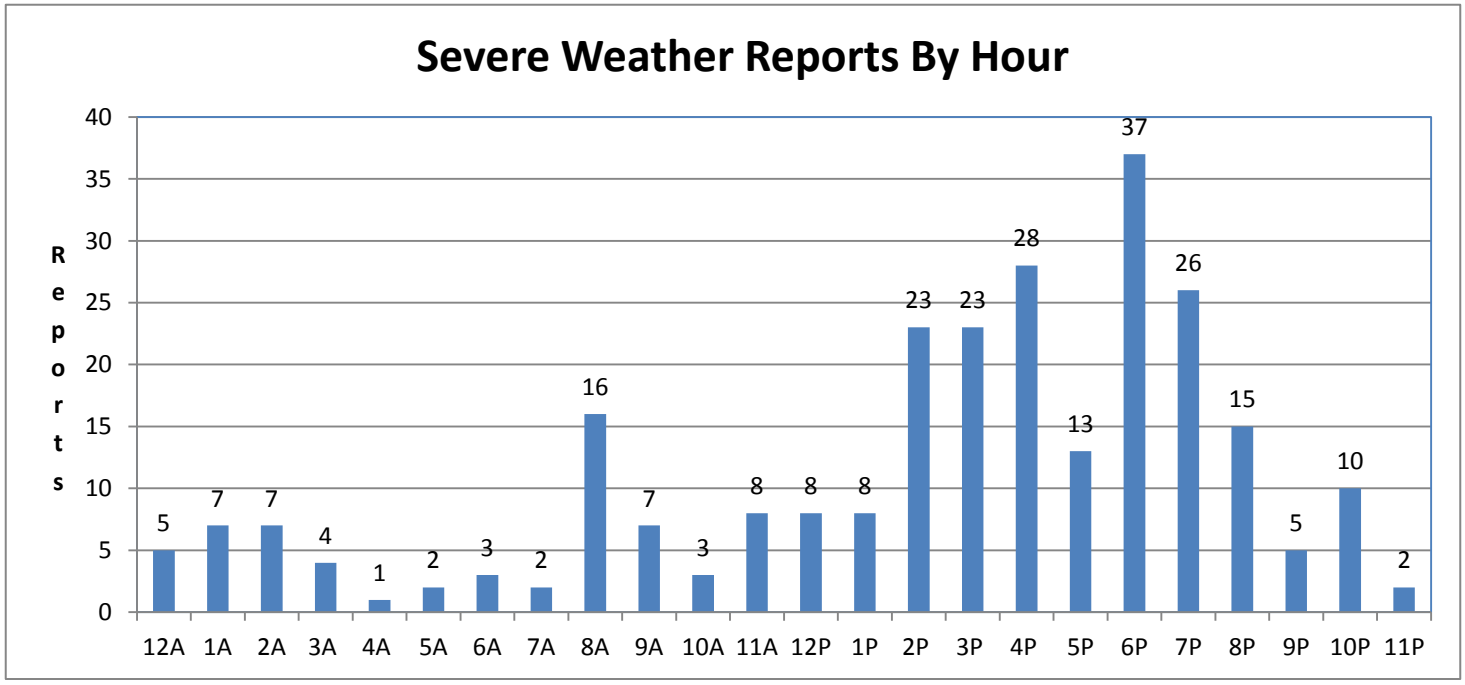


Oneida County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Oneida County. Sixty-six percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Oneida County, severe weather reports increased sharply after 1 pm and then peaks between 3 pm and 8 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. Between May and August, there is a peak in overnight activity between midnight and 6 am. In these events, thunderstorms develop across Minnesota and the Dakotas and then move into the county overnight. In 2014, all fifteen reports occurred between the hours of 8 am and 10 am local standard time (1 report on September 3rd and 14 reports on September 4th). In 2015, all the reports occurred between 11 am and noon local standard time.

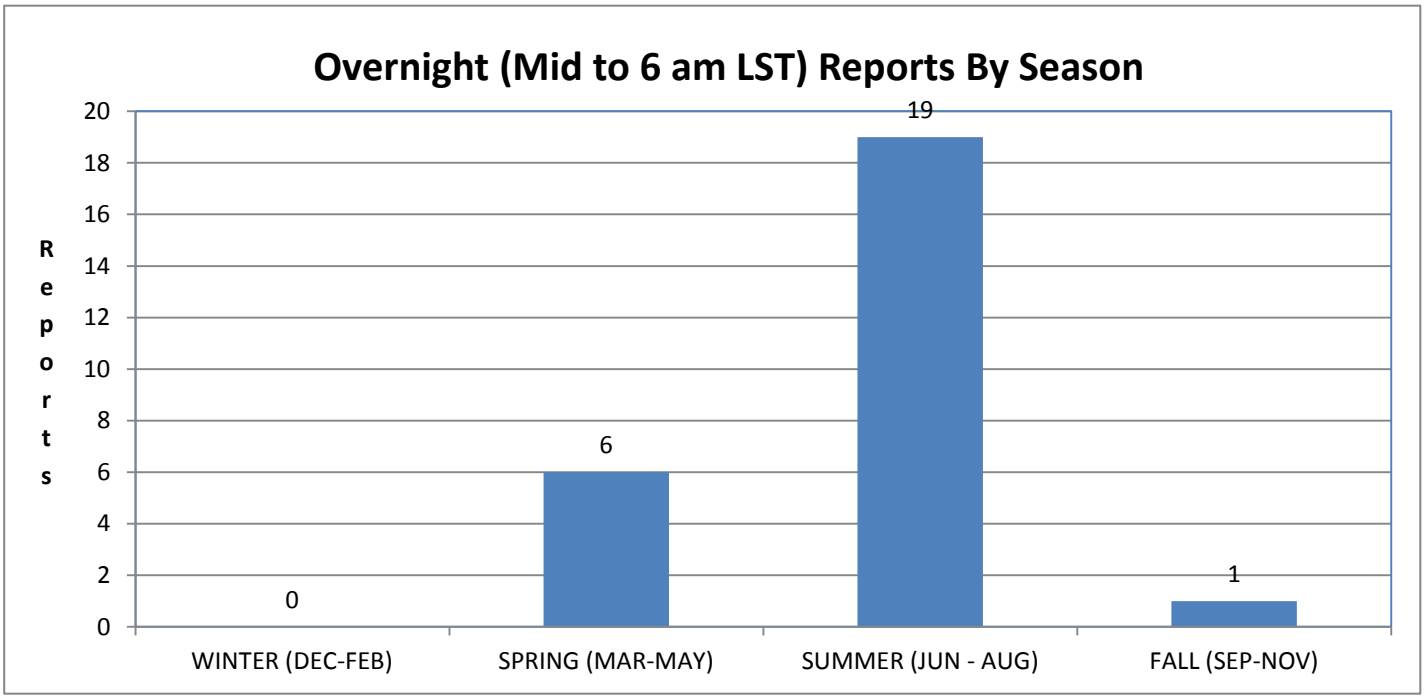




Oneida County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 73% of all overnight severe weather reports during the year.



Oneida County Severe Weather Facts (1950-2015)

Oneida County Tornadoes

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	25	1950	2100	4 NE Bradley - Rhinelander	4
2		6	20	1953	1800	Three Lakes	1
3		5	4	1964	1800-1810	0.5 S Saint Germain to 7 E St. Germain	1
4		6	26	1969	1700	Skanawan - Pelican Lake	1
5		6	14	1980	1325	1 E Rhinelander - Lake Thompson	1
6		6	14	1980	1422	5 N Rhinelander	0
7		6	13	1981	2040	1 N Hazelhurst	1
8		6	13	1981	2100	Three Lakes	2
9		4	27	1984	1437-1507	Fawn Lake - Star Lake	3
10		6	8	1985	1815-1852	Park Falls - 3 SE Monico	3
11		7	4	1986	1935-1940	5 SE Hazelhurst	2
12		8	1	1988	1820	3 S Hazelhurst	0
13		6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	2
14		8	9	1993	2015	1 N Tripoli	0
15		8	14	2000	1910	Lake Tomahawk	0
16		5	1	2001	2055-2100	0.4 NNE - NE Minocqua	1
17		9	6	2001	1809-1814	0.3 SSW Pelican Lake to 1.3 NNE Pelican Lake	0
18		4	18	2002	1557	6 SW Woodboro	0
19		4	18	2002	1633	4 E Rhinelander	0
20		7	11	2004	1442-1445	8 SW Harshaw	0
21		7	11	2004	1543	1 W Goodnow	0

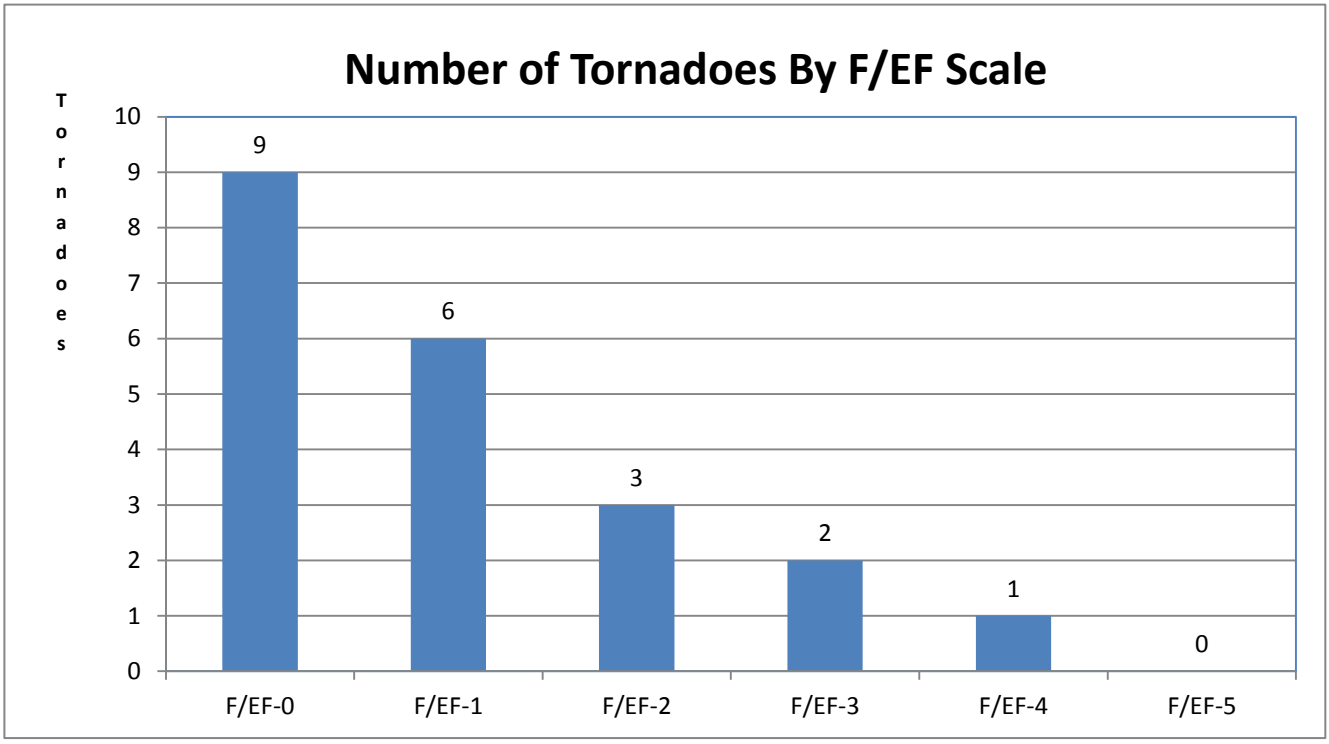
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

F/EF-2 or Greater Tornadoes in Oneida County

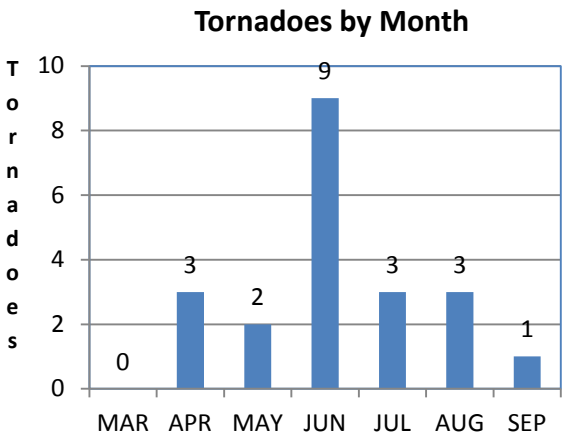
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	25	1950	2100	4 NE Bradley - Rhinelander	4
8		6	13	1981	2100	Three Lakes	2
9		4	27	1984	1437-1507	Fawn Lake - Star Lake	3
10		6	8	1985	1815-1852	Park Falls - 3 SE Monico	3
11		7	4	1986	1935-1940	5 SE Hazelhurst	2
13		6	27	1991	1820-1830	12 WSW Minocqua - Marian Lake	2

Oneida County Severe Weather Facts (1950-2015)

Since record keeping began in 1950, there have been twenty-one documented tornadoes in Oneida County. Of the twenty-one tornadoes, there have been three documented tornadoes of F/EF-3 or greater intensity, one F/EF-4 and two F/EF-3 tornadoes. The strongest tornado was an F/EF-4 which touched down four miles northeast of Bradley and moved to near Rhinelander before dissipating on June 25, 1950. The last F/EF-3 tornado to strike the county occurred on June 8, 1985. The tornado developed near Park Falls and dissipated three miles southeast of Monico. Three tornadoes were rated F/EF-2 intensity while fifteen tornadoes were rated F/EF-0 or F/EF-1. The most active years were 1980, 1981, 2001, 2002, and 2004 with two tornadoes. A tornado was reported across Oneida County in three consecutive years from 1984 to 1986 and again from 2000 to 2002. Since 1950, tornadoes have touched down in sixteen different years. A tornado strike in Oneida County on average about every three years.



Oneida County Severe Weather Facts (1950-2015)

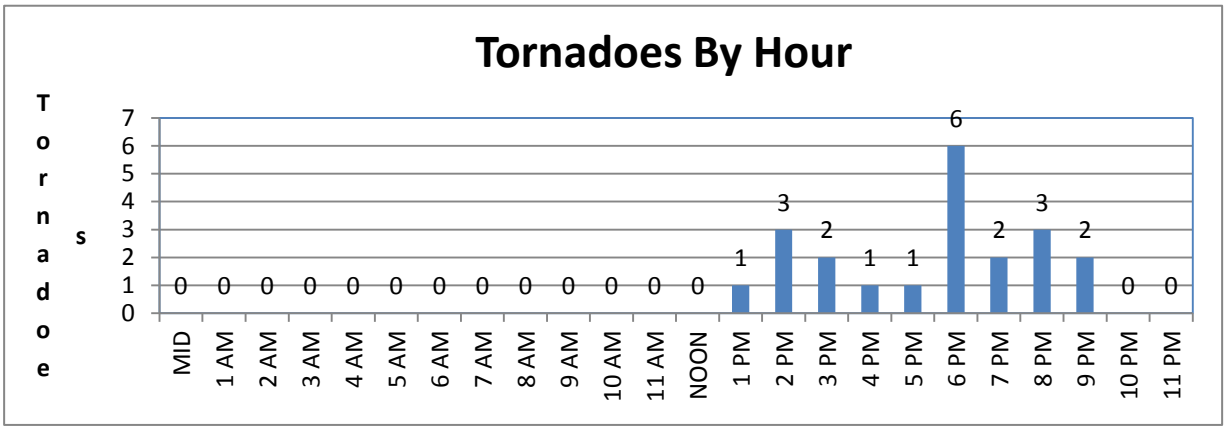


Tornadoes by Month

Documented tornadoes have occurred in Oneida County from April to September. The earliest documented tornado during the year occurred on April 18, 2002. On this date, two weak F/EF-0 tornadoes were reported four miles east of Rhinelander and six miles southwest of Woodboro. The tornado season peaks in June, which accounts for forty-three percent of all tornado reports. The warm season months of May through September account for eighty-six percent of all tornadoes during the year. The latest tornado on record during the year occurred on September 6, 2001 when the F/EF-0 tornado travelled from just south southwest of Pelican Lake to just over a mile northeast of Pelican Lake.

Tornadoes by Hour

In Oneida County, all twenty-one documented tornadoes have occurred between 1 pm and 10 pm local standard time. There have been no documented tornadoes between the 10 pm and 1 pm local standard time.



Predominant Storm Reports – Wind and Hail Only

During March, the reports were evenly split between large hail and strong winds/wind damage while large hail was the dominant report during April and May. For the remainder of the convective season, strong wind gusts/wind damage was the dominate report type. Over the course of the year, strong winds or wind damage were reported nearly six out of ten times compared to large hail reports.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	33.3	66.7
Feb	0.0	0.0	Aug	35.5	64.5
Mar	50.0	50.0	Sep	58.1	41.9
Apr	81.3	18.8	Oct	33.3	66.7
May	73.0	27.0	Nov	0.0	0.0
Jun	36.6	63.4	Dec	0.0	0.0
			Year	46.7	53.3

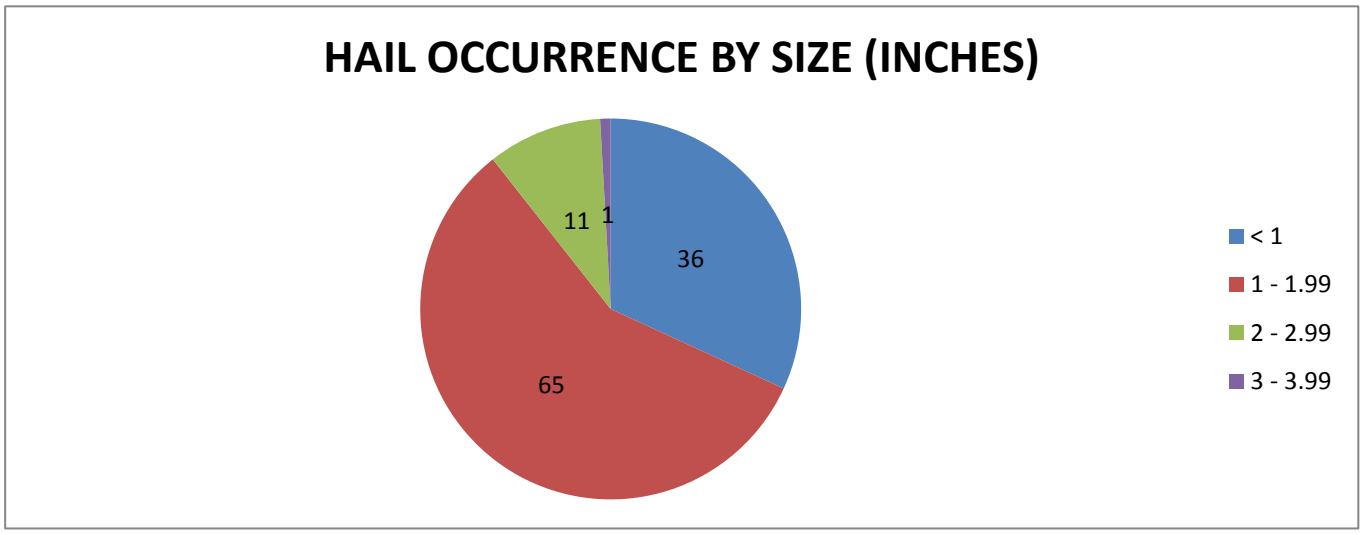
Oneida County Severe Weather Facts (1950-2015)

Large Hail in Oneida County

There have been ten documented reports of hail two inches or greater in diameter across the county. The largest hail stone of three inches in diameter occurred four miles south of Rhinelander on July 19, 1963. The last documented hail stone of two inches or greater occurred on September 4, 2014 when two and a half inch fell four miles northeast of Lake Tomahawk and 3.6 miles southeast of Mc Naughton between 850 and 855 am local standard time. Overall, hail ranging in size from three quarters to one inch accounted for sixty-four percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for nine percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		7	19	1963	1500	4 S Rhinelander	3.00
2		7	28	1980	1530	13 SW Harshaw	2.00
3		7	4	1985	1425	Minocqua	2.00
4		4	26	1994	1420	Woodruff	2.00
5		5	30	1994	2030	Rhinelander	2.00
6		5	30	1994	2055	Minocqua	2.50
7		5	30	1994	2055	5 SE Rhinelander	2.50
8		7	16	1997	1230	1 N Minocqua	2.75
9		6	5	1999	1832	Three Lakes	2.00
10		7	5	1999	0850	8 W Three Lakes	2.00
11		9	4	2014	0850	4 NE Lake Tomahawk	2.50
12		9	4	2014	0855	3.6 SE Mc Naughton	2.50



Oneida County Severe Weather Facts (1950-2015)

Oneida County Summary

In Oneida County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail or damaging winds early in the spring. Damaging wind or large hail will be the dominant severe weather report during the remainder of the convective season, with the exception of May when large hail was the dominant weather report. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Oneida County ranks 4th in the total number of storm reports and tied for 9th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Oneida County Severe Weather Facts (1950-2015)

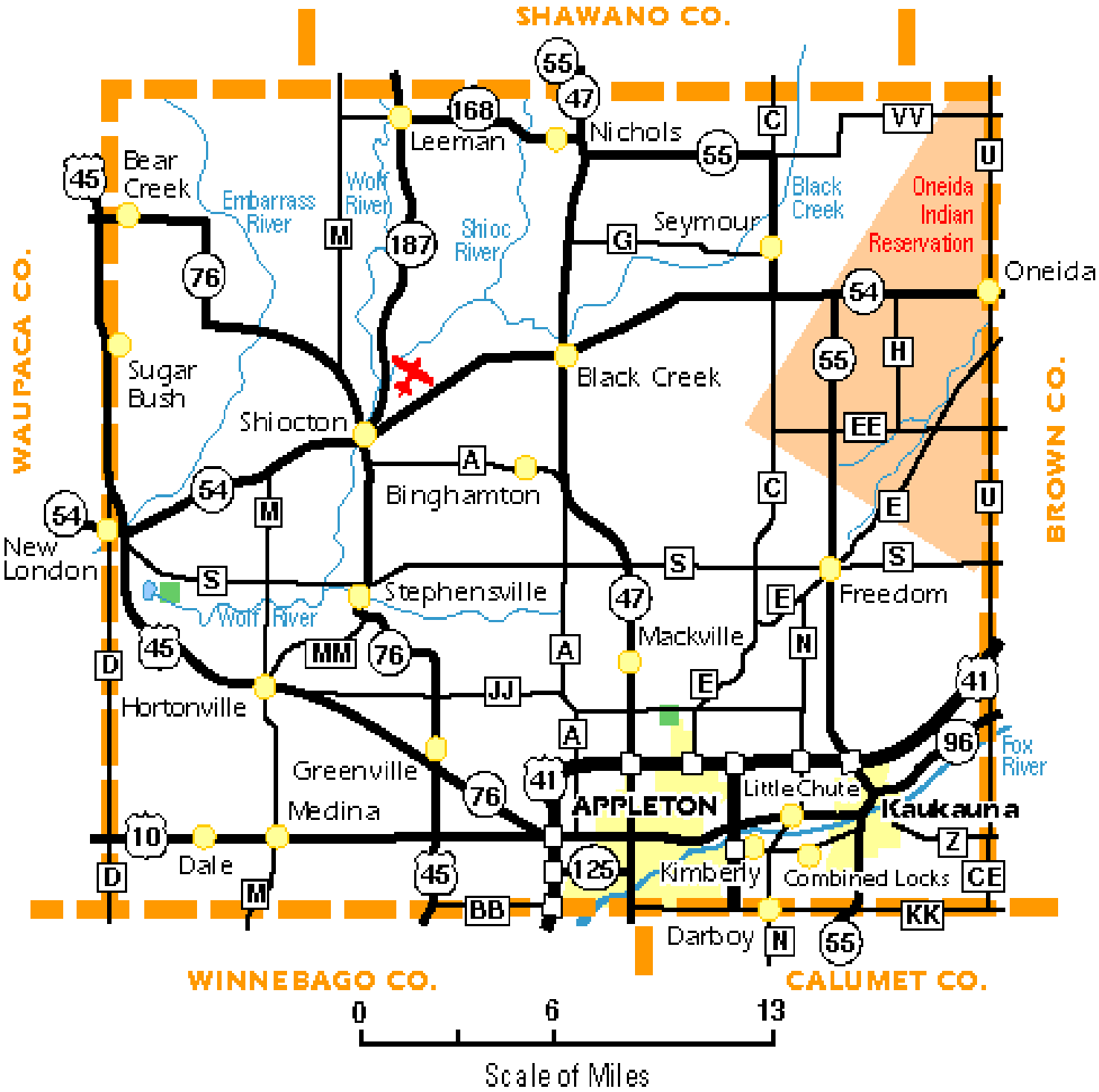
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Outagamie County Severe Weather Facts (1950-2015)



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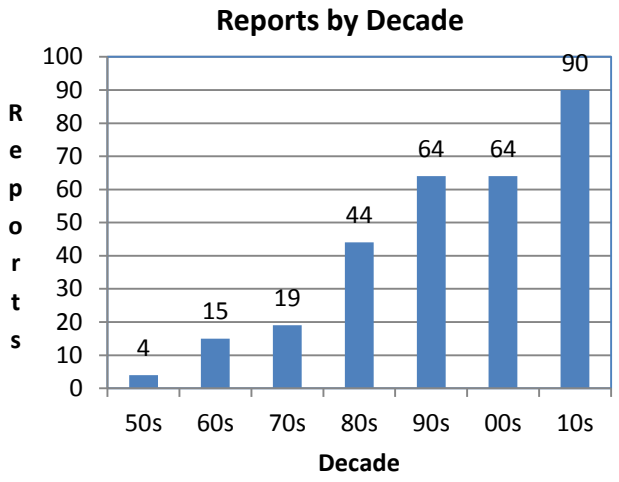
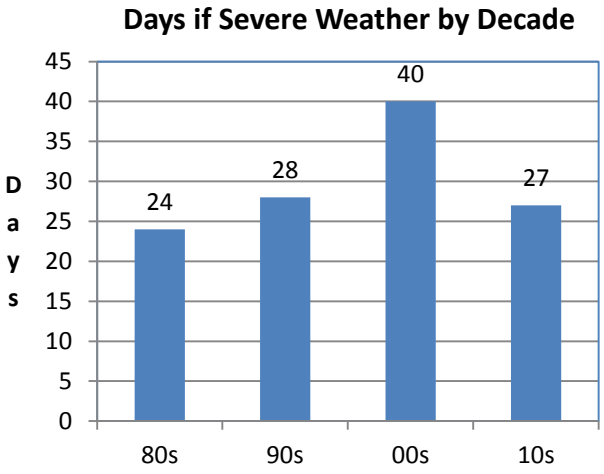
Outagamie County Severe Weather Facts (1950-2015)



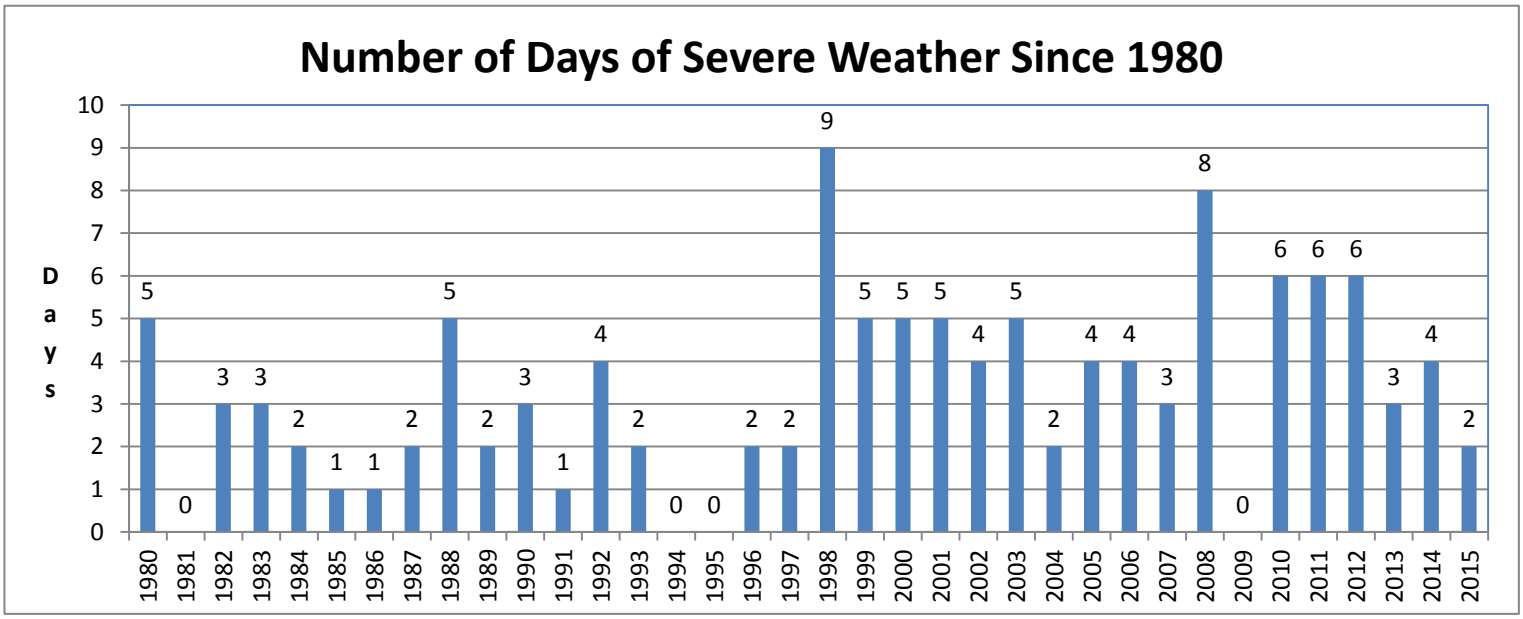
Storm Reports by Decade

Since 1950 there have been 300 documented reports of large hail, damaging winds and tornadoes across Outagamie County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 45 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

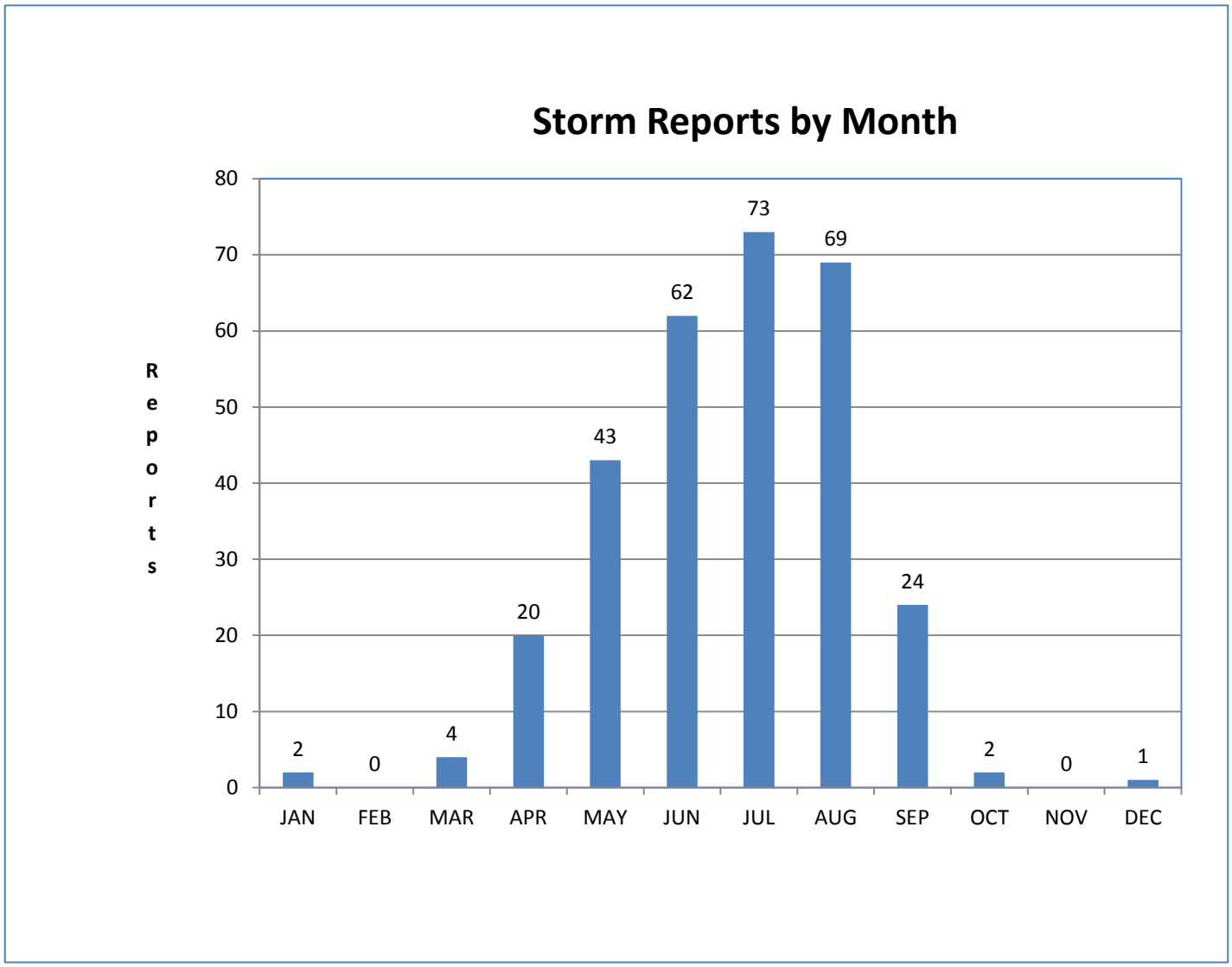
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 67 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Outagamie County averages 4.5 days of severe weather in a given year. The long term average from 1980-2015 is 3.3 days. The most active year was 1998 with nine days of severe weather days, followed by eight days in 2008 and six days in 2010, 2011 and 2012.



Outagamie County Severe Weather Facts (1950-2015)

Storm Reports by Month

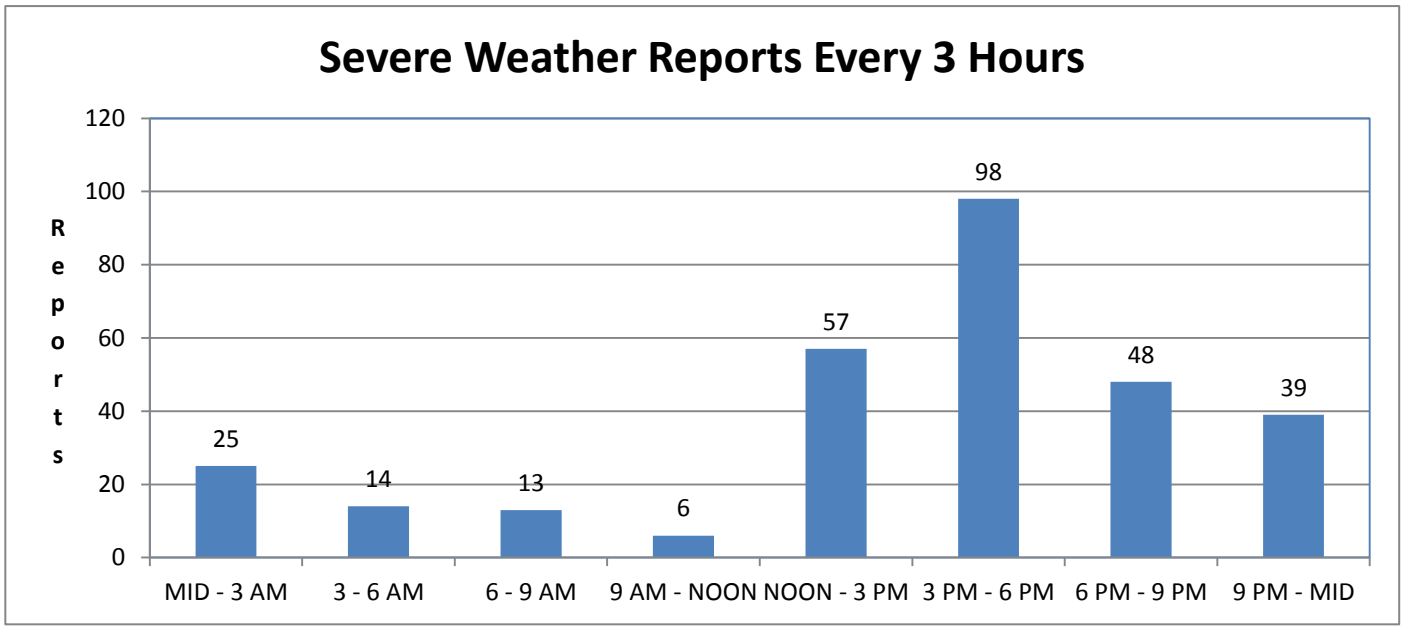
Severe weather has been reported in Outagamie County in every month except for February and November. Surprisingly, there has been one report of severe weather during the month of January. On January 24, 1967, a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. On a few occasions, severe weather breaks out during the month of March. The severe weather season begins in earnest in April. The heart of the convective season runs from May through September, which account for ninety percent of all reports during the year. Severe weather can occur from time to time in September. Isolated reports of severe weather have been noted during October and December. The latest report of severe weather during the year occurred on December 1, 1970 when an out of season F/EF-3 tornado touched down near Medina and dissipated near Rose Lawn in Shawano County.

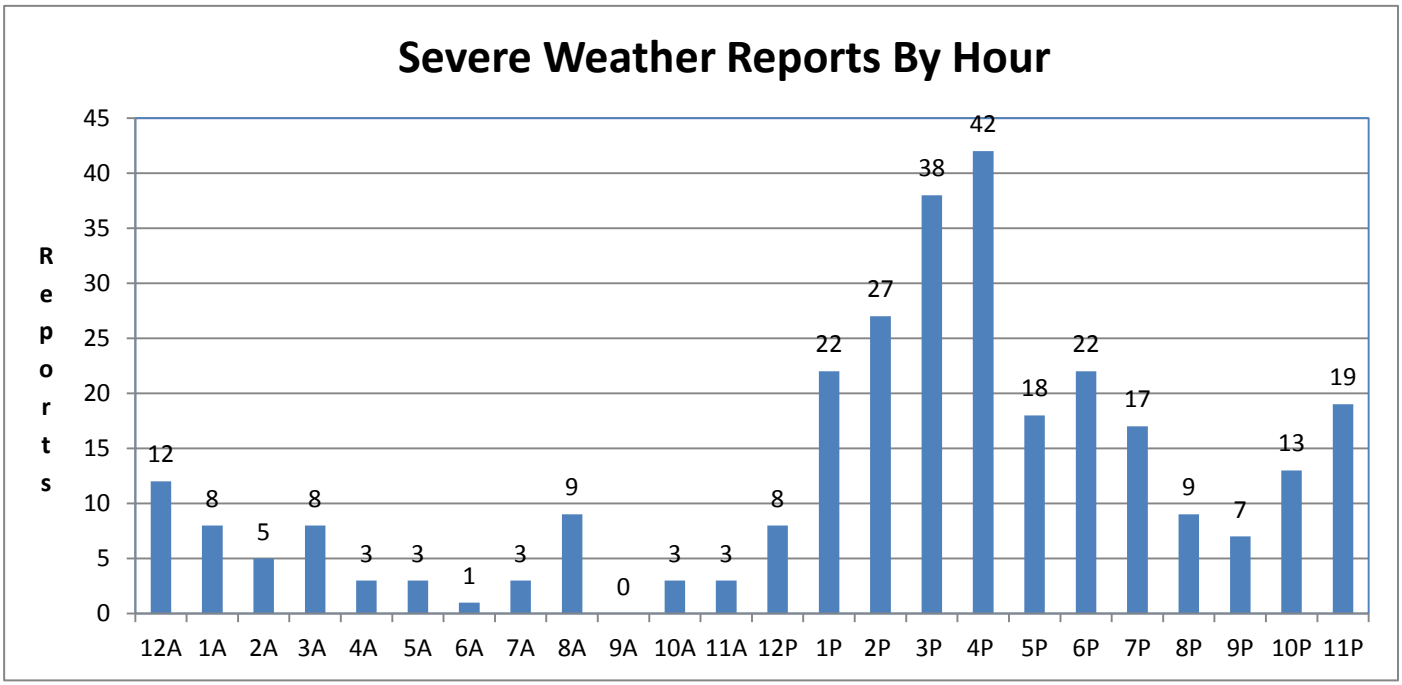


Outagamie County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Outagamie County. Sixty-five percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Outagamie County, severe weather reports increased sharply after 1 pm with the peak activity between 1 pm and 6 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. Between May and September, there is a peak in overnight activity between midnight and 6 am. In these events, thunderstorms develop across Minnesota and the Dakotas move into the county overnight.

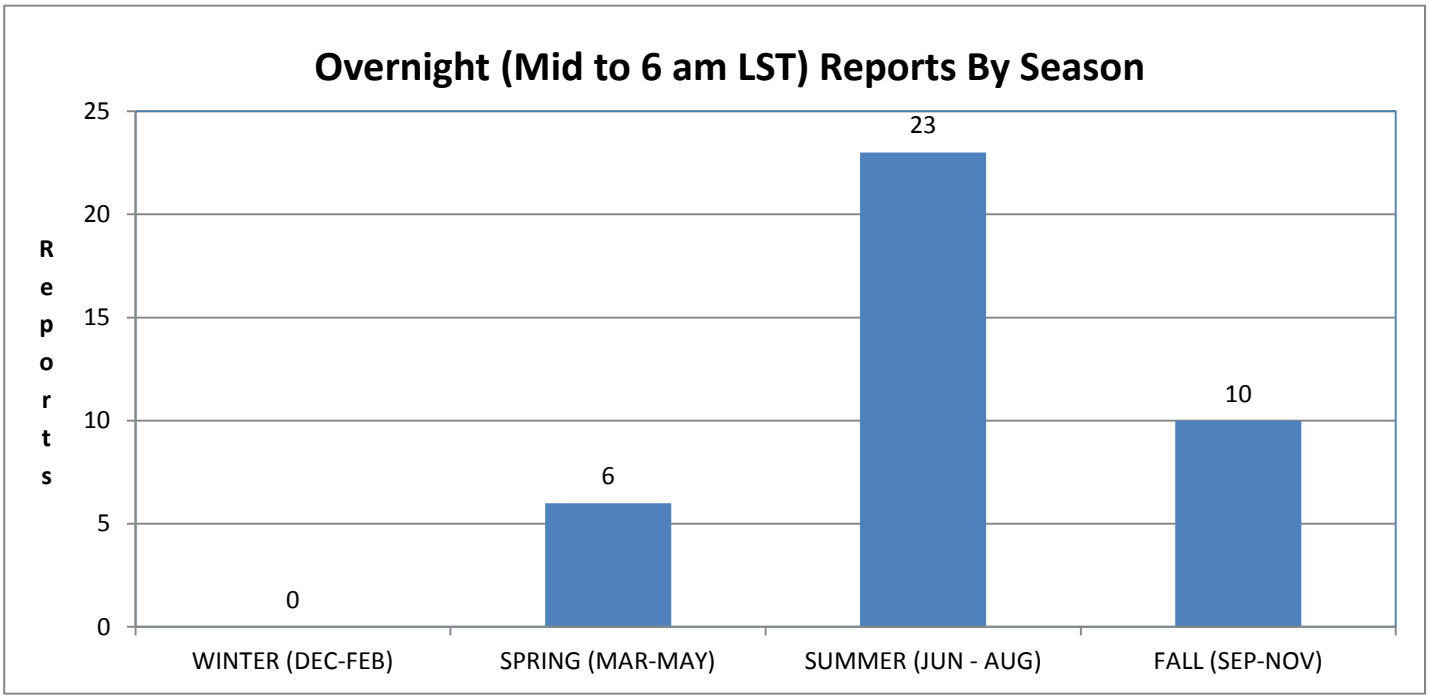




Outagamie County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 59% of all overnight severe weather reports during the year.



Outagamie County Severe Weather Facts (1950-2015)

Outagamie County Tornadoes

Since record keeping began in 1950, there have been twenty-three documented tornadoes in Outagamie County. Of the twenty-three tornadoes, there have been three documented tornadoes of F/EF-3 or greater intensity. The strongest tornado was an F/EF-4 tornado on April 27, 1984. Around 3:20 pm that afternoon, the tornado formed near the town of Butte des Mortes in northern Winnebago County. The violent storm moved northeast around 40 mph and tore through the town of Clayton, killing one person. The tornado then moved into Outagamie County, tracking across the northwest side of Appleton. Around 3:40 pm, the tornado wreaked havoc across the western edge of the Outagamie County Airport and near the town of Greenville. The tornado finally dissipated near Freedom. An estimated two dozen homes were destroyed and many more were damaged across the Fox Valley that afternoon. The storm killed one person and injured nineteen more. Total cost of the destruction over the Fox Valley was fifteen million dollars (adjusted for inflation today). At one point, the tornado was one quarter mile wide and travelled over twenty miles. Across the county, two tornadoes were rated F/EF-3 intensity and seven were rated F/EF-2. Five tornadoes were rated EF-0 or EF-1. The most active year was 2013 with five tornadoes, three tornadoes in 1959 and two tornadoes in 1968 and 2011. On August 7, 2013; a record breaking five tornadoes occurred between 11:22 pm and 12:10 am local standard time (12:22 am – 1:10 am central daylight time). Since records began in 1950, there were no reported tornadoes between 9 pm and 2 am local standard until this event. On August 6-7, 2013; there were six documented tornadoes across northeast Wisconsin. The previous record for late night or early morning tornadoes was three. A tornado was reported across Outagamie County in three consecutive years from 1968 to 1970. Since 1950, tornadoes have touched down in fifteen different years. A tornado strike in Outagamie County occurs on average nearly every three years.

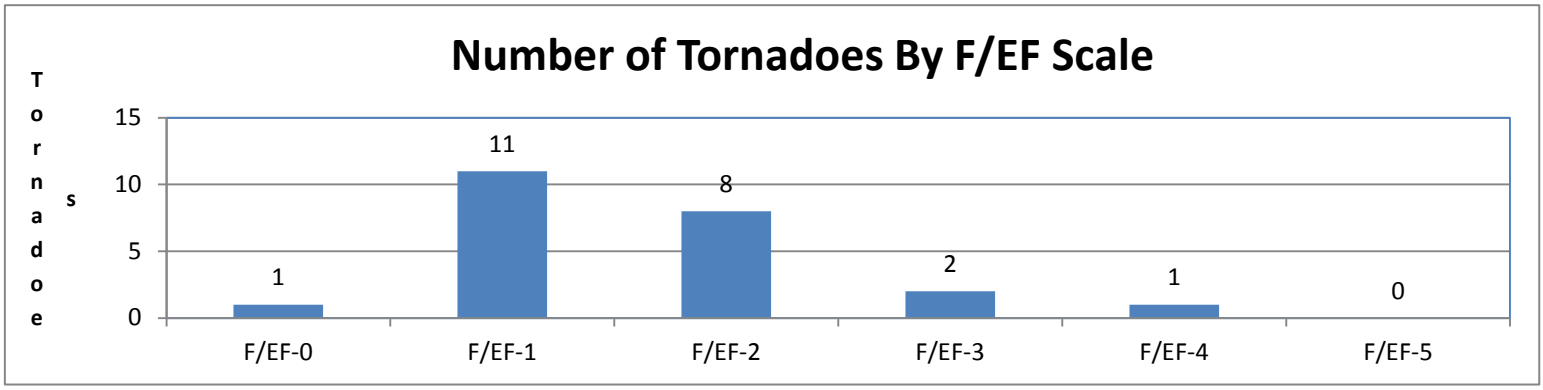
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK
1		5	6	1959	0320	Symco to 3 SE Clintonville	2
2		5	6	1959	1330	3 NE Shiocton	2
3		8	28	1959	1404	3 N Appleton	2
4		5	8	1964	1830-1906	Winneconne-Wrightstown	2
5		8	5	1968	1400	3 NW Seymour	1
6		8	16	1968	1230	Kaukauna	2
7		6	26	1969	1115-1130	Black Creek - Pulaski	3
8		12	1	1970	1015	Medina - Rose Lawn	3
9		7	12	1973	0800	4 W Freedom	1
10		6	13	1976	2000	5 E Seymour	1
11		5	30	1980	1605-1614	Black Creek	1
12		5	6	1982	1430	2 S Stephensville - 1 S Black Creek	2
13		4	27	1984	1520-1540	1 NE Winneconne - Freedom	4
14		5	16	1992	1920-1930	Kaukauna - 3 N Holland	1
15		6	23	2004	2000-2008	Little Chute - Kaukauna	1
16		6	13	2005	1449-1450	4.1 NNE - 4 NNE Black Creek	0
17		4	10	2011	1806-1832	1.2 SW Saxeville – 1 SE Hortonville	1
18		4	10	2011	1943-1946	1.2 SW Kaukauna – 0.3 S Little Chute	2
19		8	6	2013	2322-2330	4 NNE Partridge – 0.8 S New London	2
20		8	6	2013	2324-2333	1.2 W New London – 0.4 WSW Greenville	1
21		8	6	2013	2338-2353	0.4 SE Mackville – 2.7 W Morrison	1
22		8	6	2013	2338-2352	3.5 E Greenville – 2.6 NE Brillion	1
23		8	6	2013	2340-0010	2.7 ENE Mackville – 1.1 NNE Larabee	1

Outagamie County Severe Weather Facts (1950-2015)

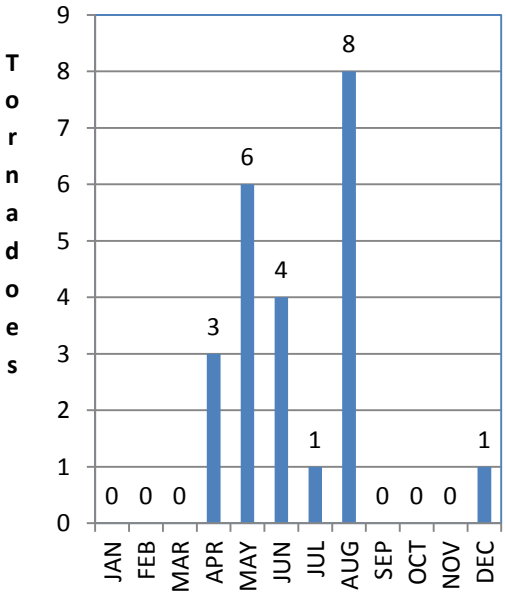
F/EF-2 or Greater Tornadoes in Outagamie County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RANK
1		5	6	1959	0320	Symco to 3 SE Clintonville	2
2		5	6	1959	1330	3 NE Shiocton	2
3		8	28	1959	1404	3 N Appleton	2
4		5	8	1964	1830-1906	Winneconne-Wrightstown	2
6		8	16	1968	1230	Kaukauna	2
7		6	26	1969	1115-1130	Black Creek - Pulaski	3
8		12	1	1970	1015	Medina - Rose Lawn	3
12		5	6	1982	1430	2 S Stephensville - 1 S Black Creek	2
13		4	27	1984	1520-1540	1 NE Winneconne - Freedom	4
18		4	10	2011	1943-1946	1.2 SW Kaukauna – 0.3 S Little Chute	2
19		8	6	2013	2322-2330	4 NNE Partridge – 0.8 S New London	2

Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate



Tornadoes by Month



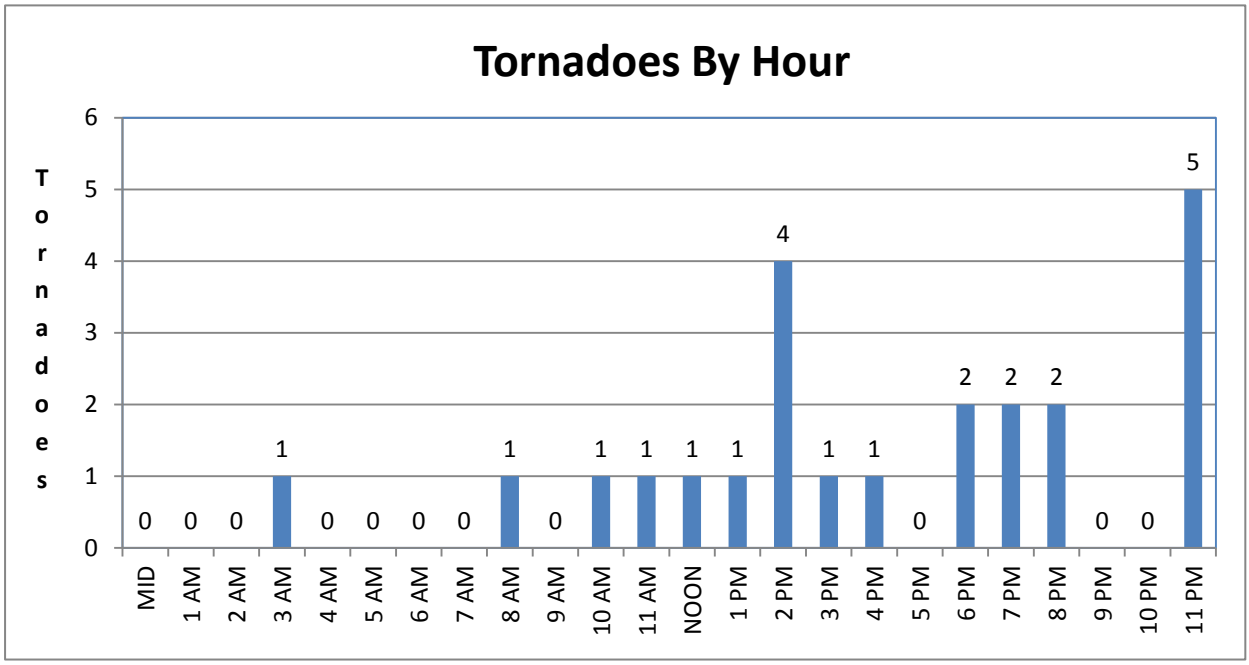
Tornadoes by Month

Documented tornadoes have occurred in Outagamie County from April to August, along with a rare out of season December tornado. The earliest documented tornado during a year occurred on April 10, 2011 when two tornadoes struck the county. The first tornado touched down 1.2 miles southwest of Saxeville in Waushara and moved to one mile southeast of Hortonville. The second tornado on this date was an F/EF-2 tornado that touched down 1.2 miles southwest of Kaukauna and traveled to three tenths of a mile south of Little Chute between 7:43 pm and 7:46 pm local standard time. The strongest tornado on record for Outagamie County occurred on April 27, 2004 when an F/EF-4 tornado tore through the northwest side of Appleton. The tornado season peaks in May through August, which accounts for eighty-three percent of all tornadoes during the year. A large tornado outbreak on August 6-7, 2013 (five tornadoes) has propelled August to be the most active month in Outagamie County. The latest tornado on record during the year occurred on December 1, 1970. An F/EF-3 tornado touched down near Medina and travelled to near Rose Lawn in Shawano County before dissipating.

Outagamie County Severe Weather Facts (1950-2015)

Tornadoes by Hour

In Outagamie County, twelve out of the twenty-three (fifty-two percent) documented tornadoes have occurred between 2 pm and 9 pm local standard time. In 2013, there was a rare nighttime tornado event (five tornadoes) early on August 7th. There have been no documented tornadoes between the midnight and 3 am, and from 4 am to 8 am local standard time.



Predominant Storm Reports – Wind and Hail Only

During March and October, large hail is the dominant report. The atmosphere aloft is colder during this time of year to support large hail reaching the ground. During the remainder of the convective season, strong wind gusts and wind damage was the dominate report type. Over the course of the year, strong winds or wind damage was reported just over half the time.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	50.0	50.0	Jul	38.9	61.1
Feb	0.0	0.0	Aug	39.3	60.7
Mar	100.0	0.0	Sep	50.0	50.0
Apr	35.3	64.7	Oct	100.0	0.0
May	48.6	51.4	Nov	0.0	0.0
Jun	51.7	48.3	Dec	0.0	0.0
			Year	45.1	54.9

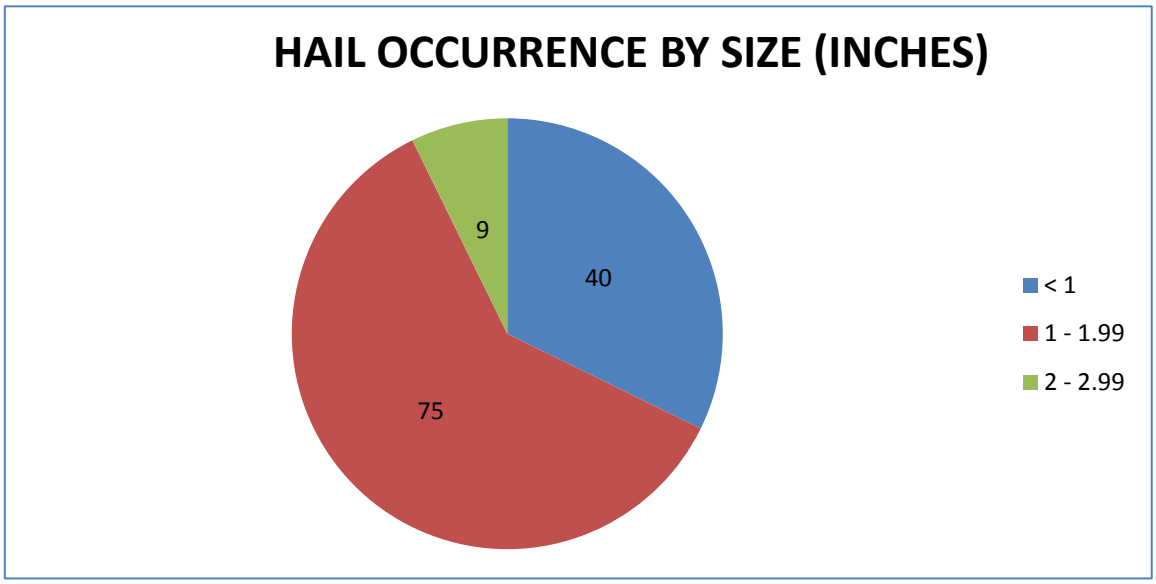
Outagamie County Severe Weather Facts (1950-2015)

Large Hail in Outagamie County

There have been eight documented reports of large hail two inches or greater in diameter across the county. The largest hail stone of 2.5 inches in diameter occurred one mile west of Appleton on March 29, 1998 and again on June 17, 2013 just over a half mile south of Appleton. Overall, hail ranging in size from three quarters to one inch accounted for sixty-three percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for seven percent of the total large hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		3	29	1998	1203	3 WNW Appleton	2.00
2		3	29	1998	1210	1 W Appleton	2.50
3		8	23	1998	1544	Appleton	2.00
4		9	26	1998	0030	4 SE Shiocton	2.00
5		8	12	1999	2313	Darboy	2.00
6		3	8	2000	1920	Medina	2.00
7		4	15	2003	1800	5 NE Bear Creek	2.00
8		6	17	2013	1426	0.7 S Appleton	2.50



Outagamie County Severe Weather Facts (1950-2015)

Outagamie County Summary

In Outagamie County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am between May and September. If you do experience severe weather, you are likely to see large hail early in the spring and in the fall while damaging winds or strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Outagamie County ranks 3rd in the total number of storm reports and tied for 6th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Outagamie County Severe Weather Facts (1950-2015)

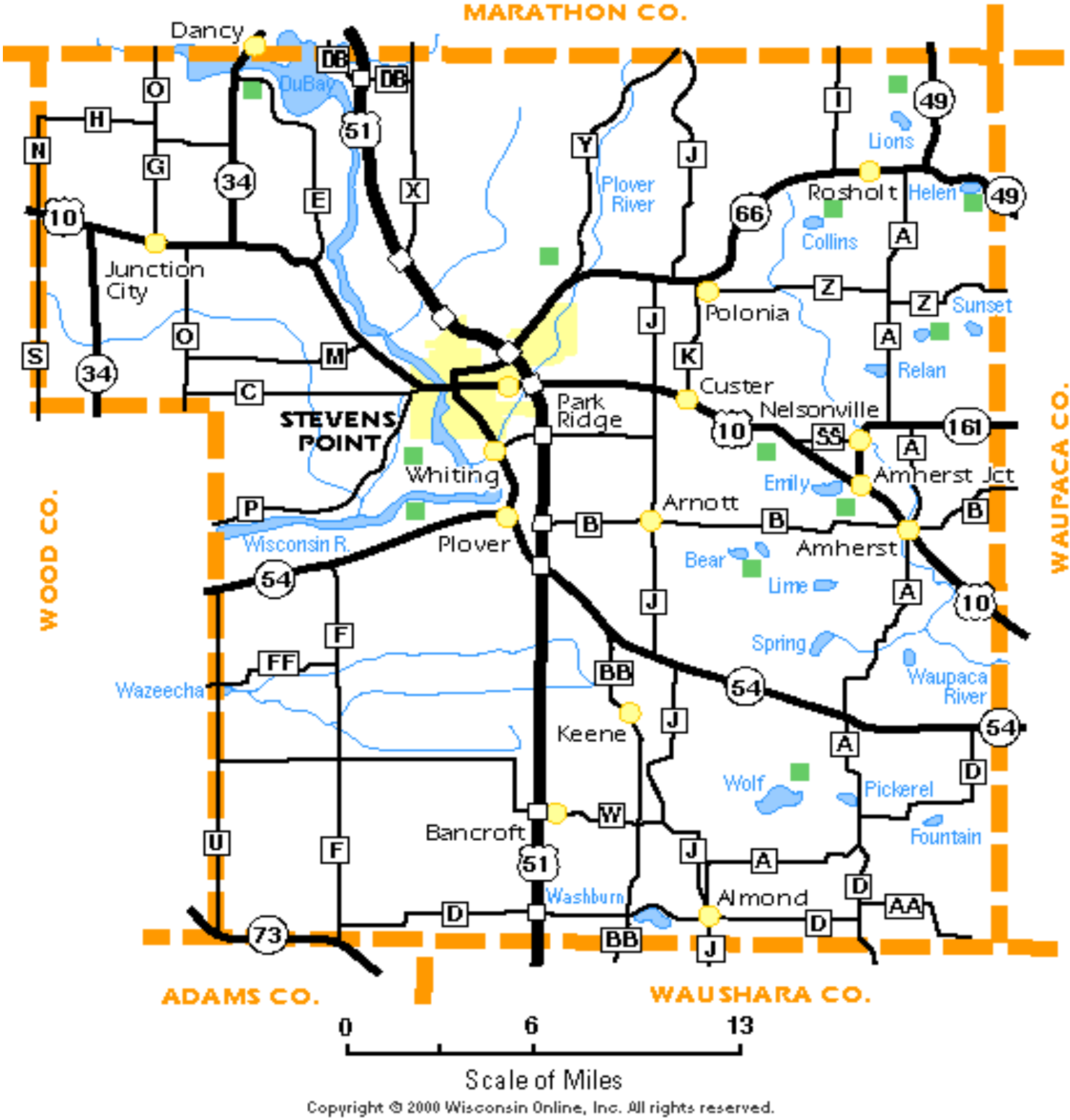
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Portage County Severe Weather Facts (1950-2015)



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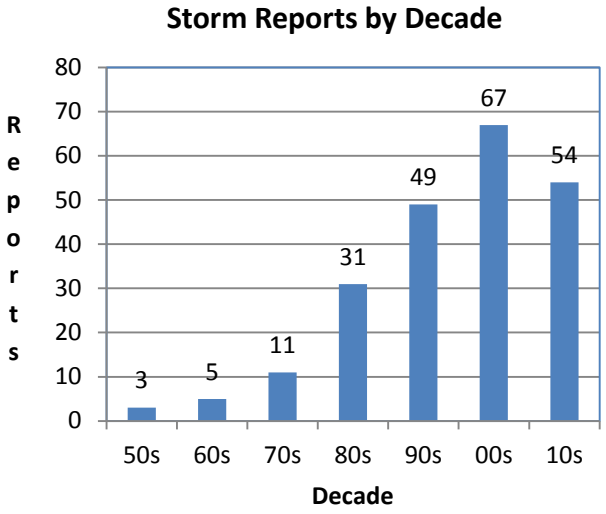
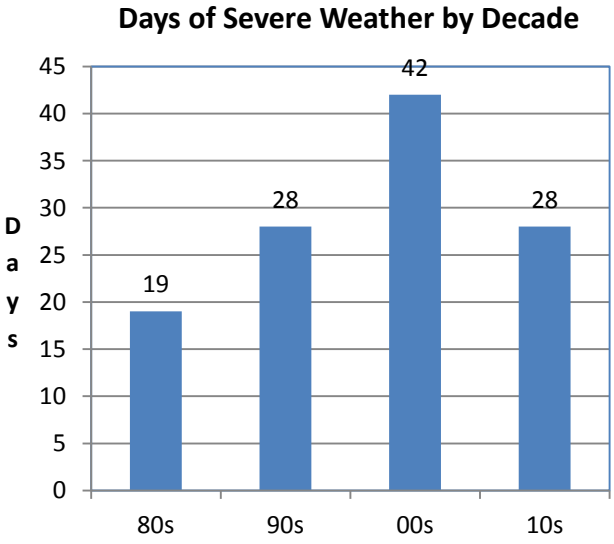
Portage County Severe Weather Facts (1950-2015)



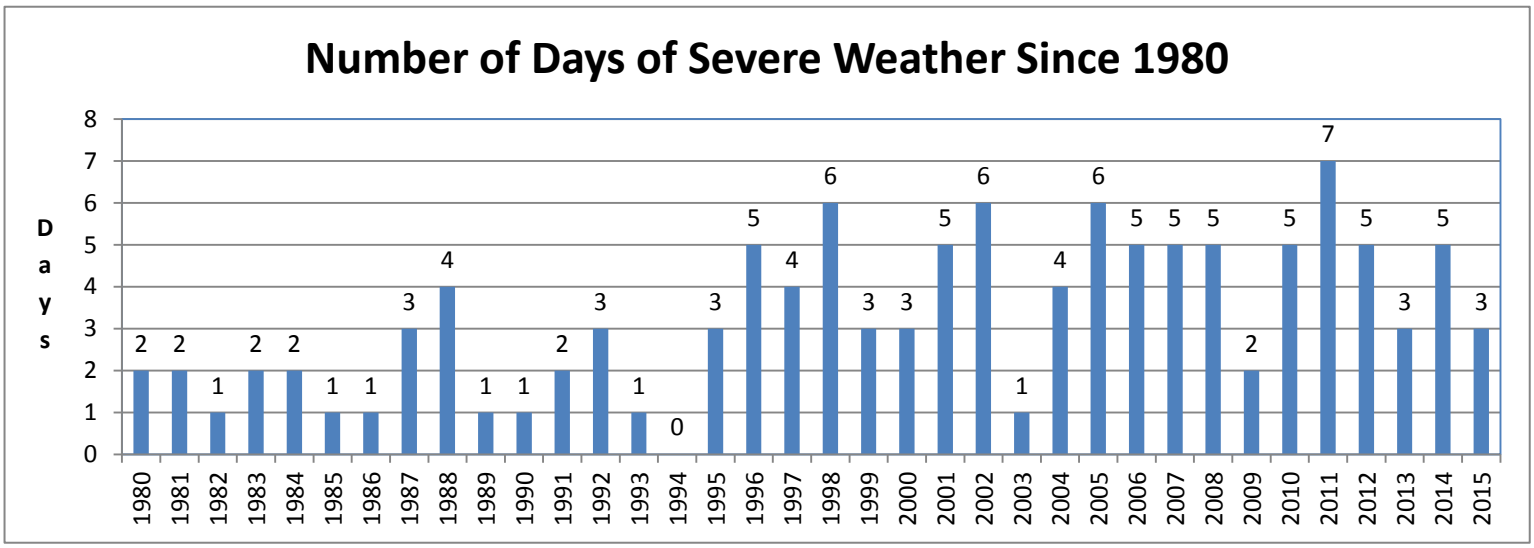
Storm Reports by Decade

Since 1950 there have been 220 documented reports of large hail, damaging winds and tornadoes across Portage County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 116 percent from the 1980s to 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

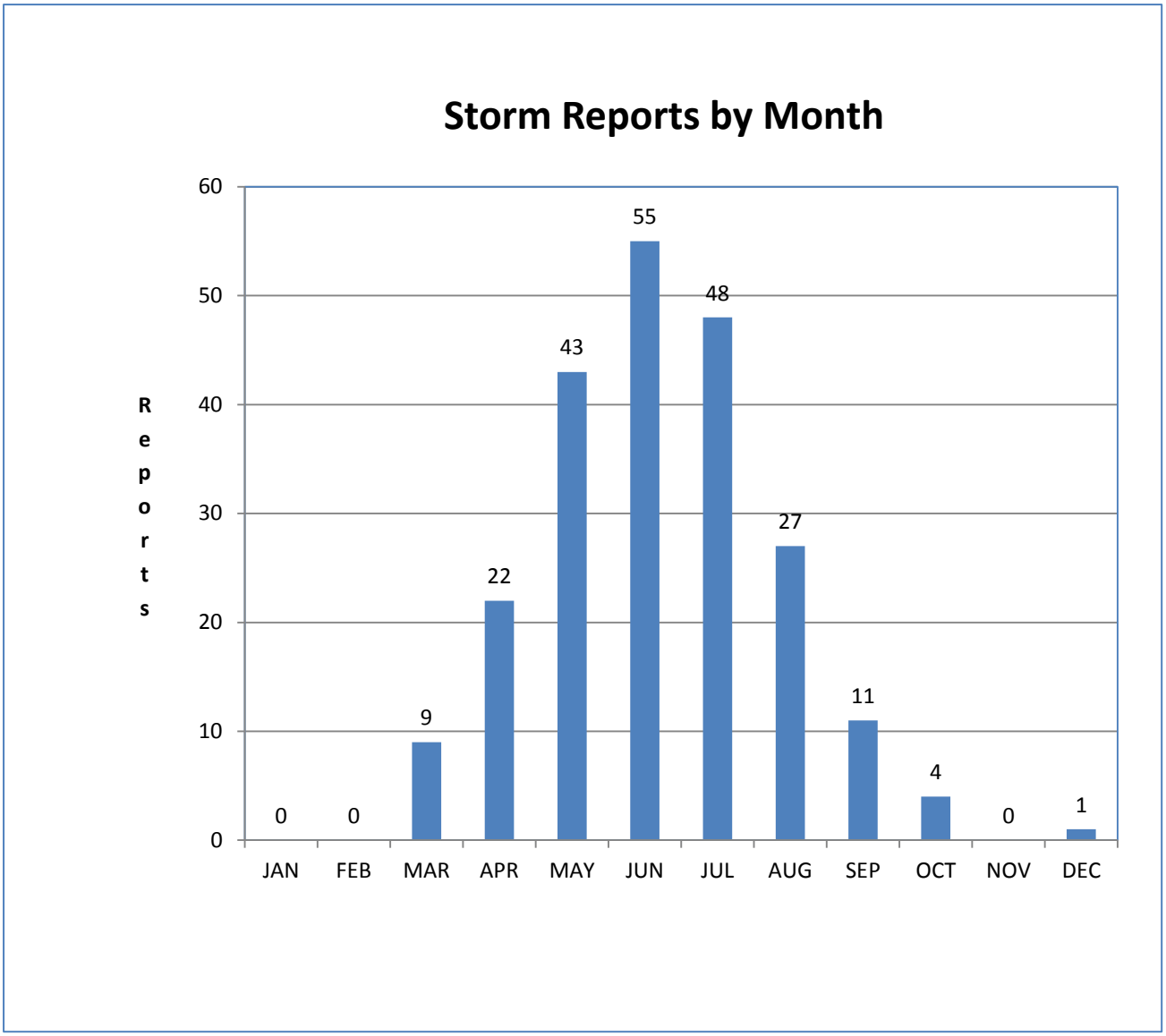
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 121 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Portage County averages 4.7 days of severe weather in a given year. The long term average from 1980-2015 is 3.3 days. The most active year was 2011 with seven days of severe weather; followed by six days in 1998, 2002 and 2005. There were several years with five days of severe weather, including 2014.



Portage County Severe Weather Facts (1950-2015)

Storm Reports by Month

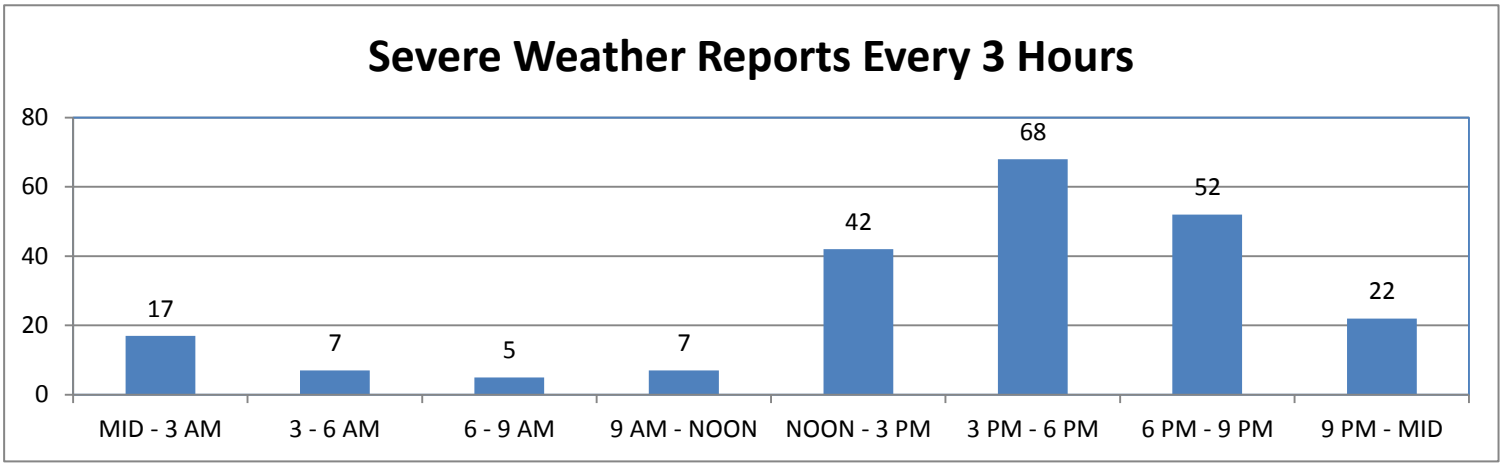
Severe weather has been recorded in Portage County from March through October with one out of season event in December. A few events have occurred in March. The earliest documented report of severe weather during the year occurred on March 8, 2000 when one inch hail was reported in the town of Blaine. The severe weather season begins in earnest in April. The heart of the convective season occurs between May and July, with June being the peak month for severe weather. The severe weather season then quickly wanes by September. The warm season period of May through September accounts for eighty-four percent of all severe weather reports during the year. Severe weather can occur from time to time in September while isolated events can occur in October. The latest report of severe weather during the year occurred on December 1, 1970. On this date, an out of season tornado touched down near Hull at 7 am in the morning. This was one of four tornadoes that touched down between Hull and Green Bay on this date.

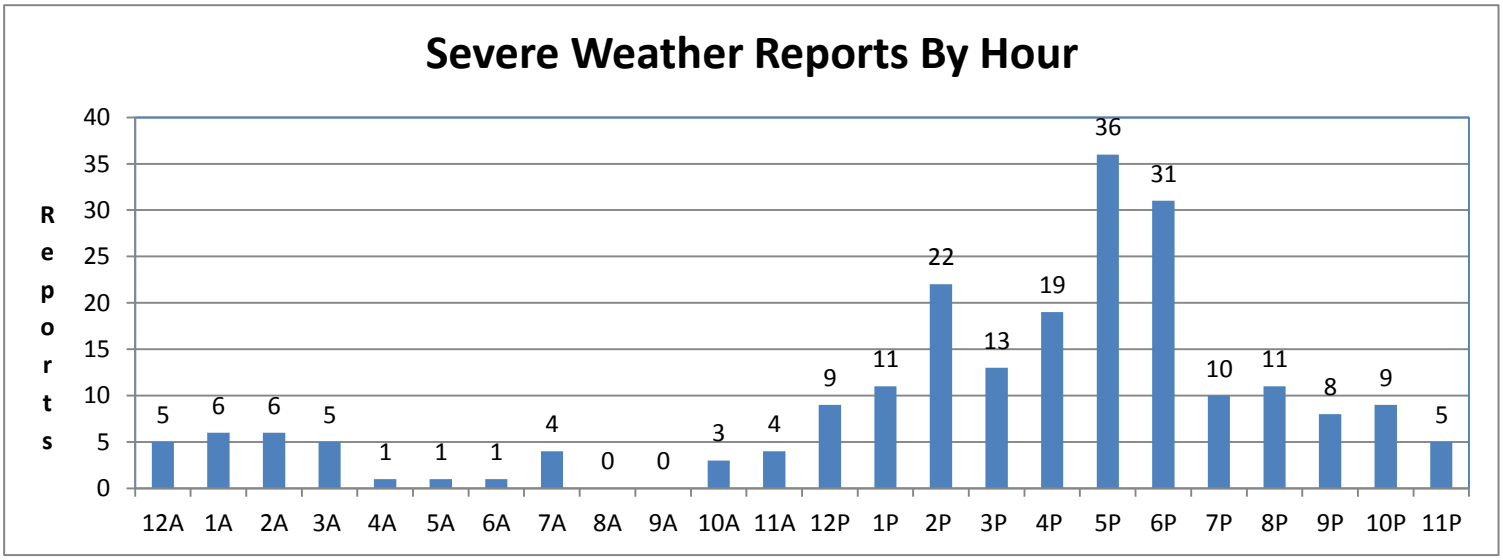


Portage County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Portage County. Seventy percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Portage County, severe weather reports increased sharply after 1 pm with a peak in reports between 4 pm and 7 pm. The peak in the storm activity corresponded to peak afternoon heating when the atmosphere becomes most unstable. Between June and August, there is a peak in overnight activity between midnight and 6 am. In these events, convection that develops across Minnesota and the Dakotas moves into the county overnight.

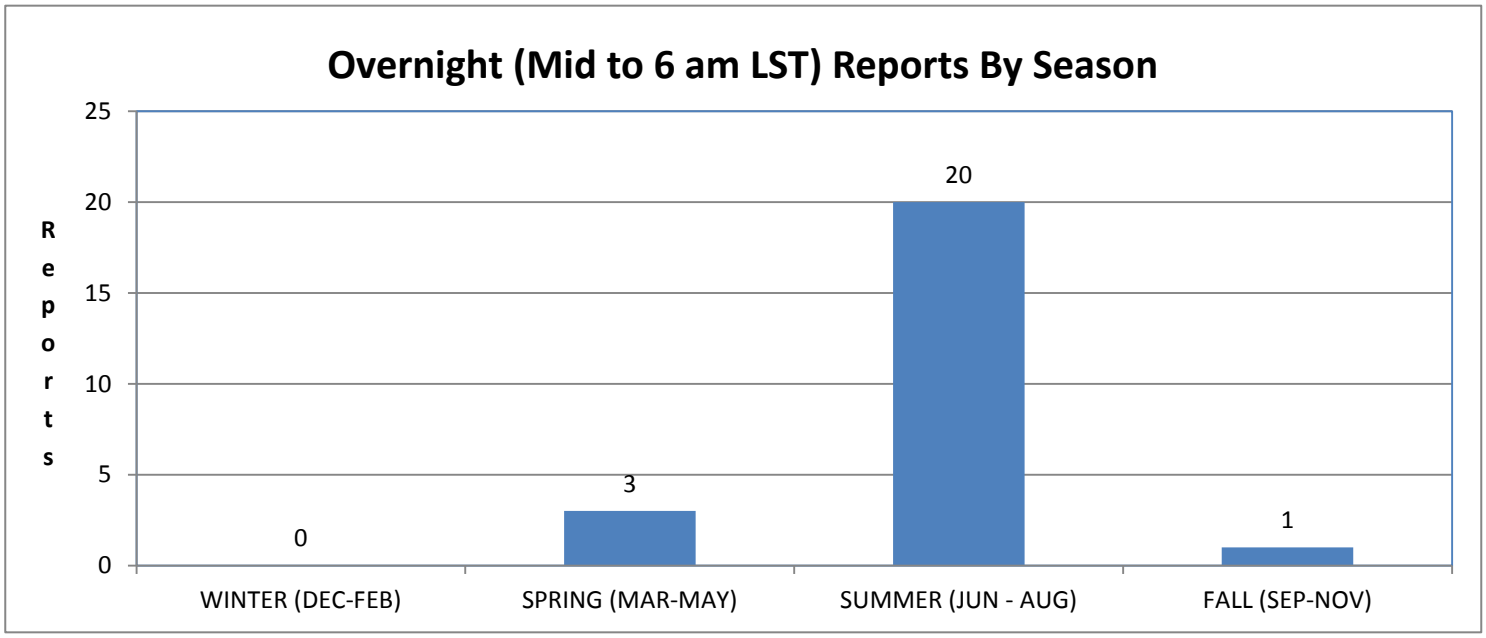




Portage County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 83% of all overnight severe weather reports during the year.



Portage County Severe Weather Facts (1950-2015)

Portage County Tornadoes

Since record keeping began in 1950, there have been twenty-three documented tornadoes in Portage County. Of the twenty-three tornadoes, only one tornado has been rated an F/EF-3 or greater intensity. On September 26, 1951, an F/EF-4 tornado developed nine miles south southwest of Amherst and travelled to near Bear Creek before dissipating. Seven other tornadoes were rated F/EF-2 intensity, while fifteen tornadoes were rated F/EF-0 or F/EF-1. The most active year was 1976 with four tornadoes followed by three tornadoes in 1992 and 2004. The last tornado to strike Portage County occurred on July 9, 2013 when an F/EF-0 tornado touched down 4.2 miles south of Bancroft for about a minute. A tornado was reported in consecutive years in 1956 and 1957. Since 1950, tornadoes have touched down in sixteen different years. A tornado strike in Portage County on average occurs nearly every three years.

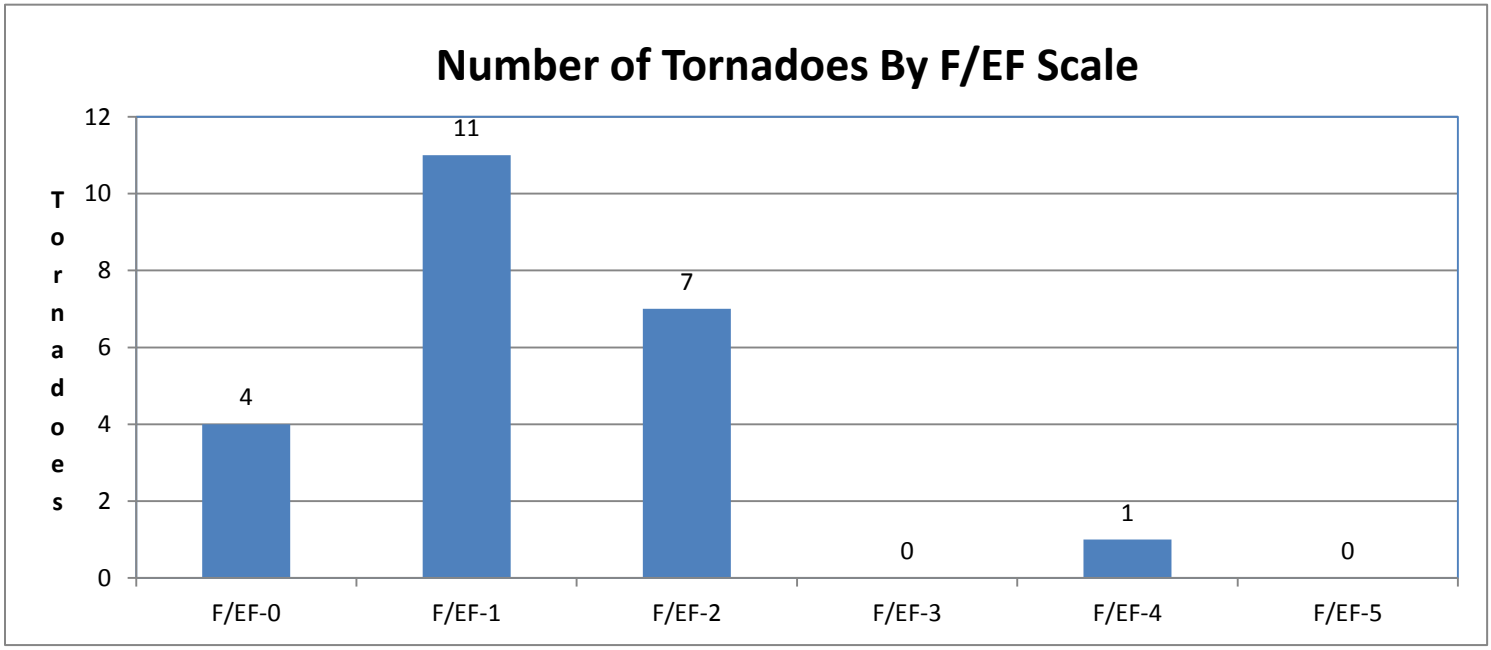
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	26	1951	1545-1608	9 SSW Amherst - Bear Creek	4
2		4	3	1956	1250	Bancroft - Amherst	2
3		4	19	1957	1600	Coddington - Bancroft	1
4		6	23	1962	1900	15 E Stevens Point	0
5		8	22	1964	1400	6 W Bancroft - Grant	2
6		7	7	1970	1500	Bancroft	2
7		12	1	1970	0700	Hull	1
8		6	9	1974	1445	Bancroft	1
9		6	12	1976	2030	1 W Alban	2
10		6	12	1976	2100	Amherst	1
11		6	13	1976	1900	Plover	2
12		6	13	1976	1840-1920	4 W Wisconsin Rapids - Stevens Point	1
13		3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	1
14		4	27	1984	1415	0.5 S Plover	2
15		5	8	1988	1712	3 W Keene	0
16		5	16	1992	1430	5 N Junction City	1
17		5	16	1992	1810	4 W Keene - 5 SE Amherst	2
18		10	8	1992	1712	4 NE Blaine	1
19		6	23	2004	1846-1848	3 NNW Almond - 3 NNE Almond	1
20		6	23	2004	1847	Whiting	0
21		6	23	2004	1853-1856	3 SE Blaine - 5 ESE Blaine	1
22		5	22	2011	1703-1746	5.5 SE Cranmoor – 4.8 SE Arnott	1
23		7	9	2013	1644-1645	4.2 S Bancroft	0

Portage County Severe Weather Facts (1950-2015)

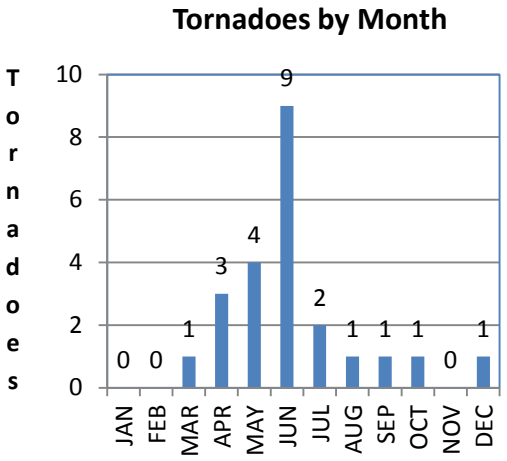
F/EF-2 or Greater Tornadoes in Portage County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	26	1951	1545-1608	9 SSW Amherst - Bear Creek	4
2		4	3	1956	1250	Bancroft - Amherst	2
5		8	22	1964	1400	6 W Bancroft - Grant	2
6		7	7	1970	1500	Bancroft	2
9		6	12	1976	2030	1 W Alban	2
11		6	13	1976	1900	Plover	2
14		4	27	1984	1415	0.5 S Plover	2
17		5	16	1992	1810	4 W Keene - 5 SE Amherst	2

Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate



Portage County Severe Weather Facts (1950-2015)

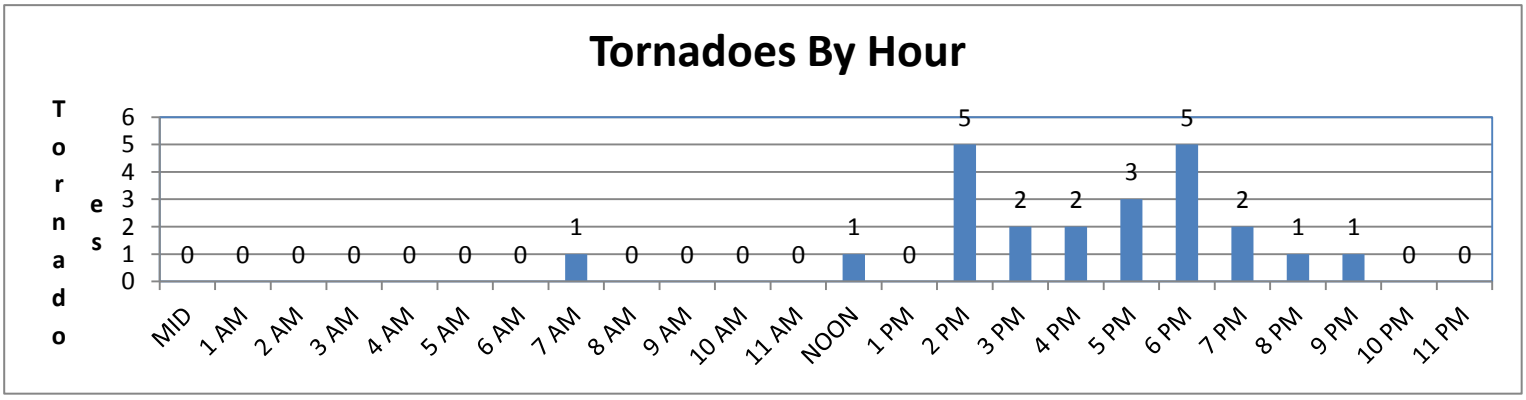


Tornadoes by Month

Documented tornadoes have occurred in every month except January, February and November. The earliest documented tornado in the spring occurred on March 30, 1982. On this date, an F/EF-1 tornado developed near Armenia and moved to three miles southwest of Stevens Point before dissipating. The tornado season peaks in May and June and accounts for fifty-nine percent of all tornado reports. The warm season months of May through September account for seventy-four percent of all tornadoes during the year. The latest tornado on record during the year occurred on December 1, 1970. A rare F/EF-1 December tornado touched down near Hull around 7 am in the morning. This was one of four tornadoes between Hull and Green Bay on this morning.

Tornadoes by Hour

In Portage County, twenty-one of the twenty-three (91 percent) documented tornadoes have occurred between 2 pm and 10 pm local standard time. There have been no documented tornadoes between 10 pm to 6 am and 8 am to noon local standard time. The lone tornado reported between 7 am and 8 am occurred on December 1, 1970. Most people would not expect that to happen at any time of the day, let alone at seven to eight in the morning in early December.



Predominant Storm Reports – Wind and Hail Only

During March and April, large hail is the dominant weather report. The atmosphere aloft is still cold which supports large hail to reach the ground. Over the remainder of the convective season, the dominant reports are strong wind gusts and wind damage. This is especially true during July and August when over 7 out 10 reports are strong wind gusts and wind damage compared to large hail.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	26.1	73.9
Feb	0.0	0.0	Aug	30.8	69.2
Mar	75.0	25.0	Sep	40.0	60.0
Apr	63.2	36.8	Oct	33.3	66.7
May	51.3	48.7	Nov	0.0	0.0
Jun	37.0	63.0	Dec	0.0	0.0
			Year	40.6	59.4

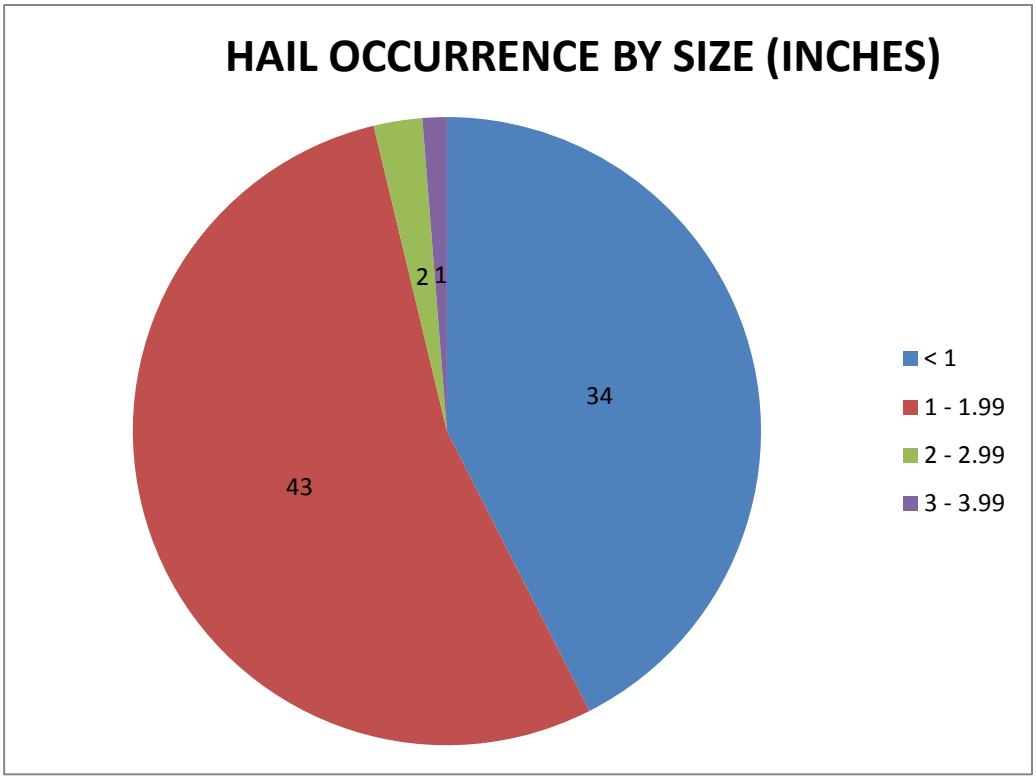
Portage County Severe Weather Facts (1950-2015)

Large Hail in Portage County

There have been three documented reports of hail two inches or greater in diameter across Portage County. The largest hail stone documented was three inches in diameter which occurred in Plover on May 22, 2011; and was the last documented hail stone of two inches or greater. Overall, hail ranging in size from three quarters to one inch accounted for sixty-five percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for only four percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		8	8	2000	1855	Rosholt	2.75
2		7	16	2008	1134	Plover	2.00
3		5	22	2011	1735	Plover	3.00



Portage County Severe Weather Facts (1950-2015)

Portage County Summary

In Portage County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring. Damaging winds or large hail will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Portage County ranks 8th in the total number of storm reports and tied for 6th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Portage County Severe Weather Facts (1950-2015)

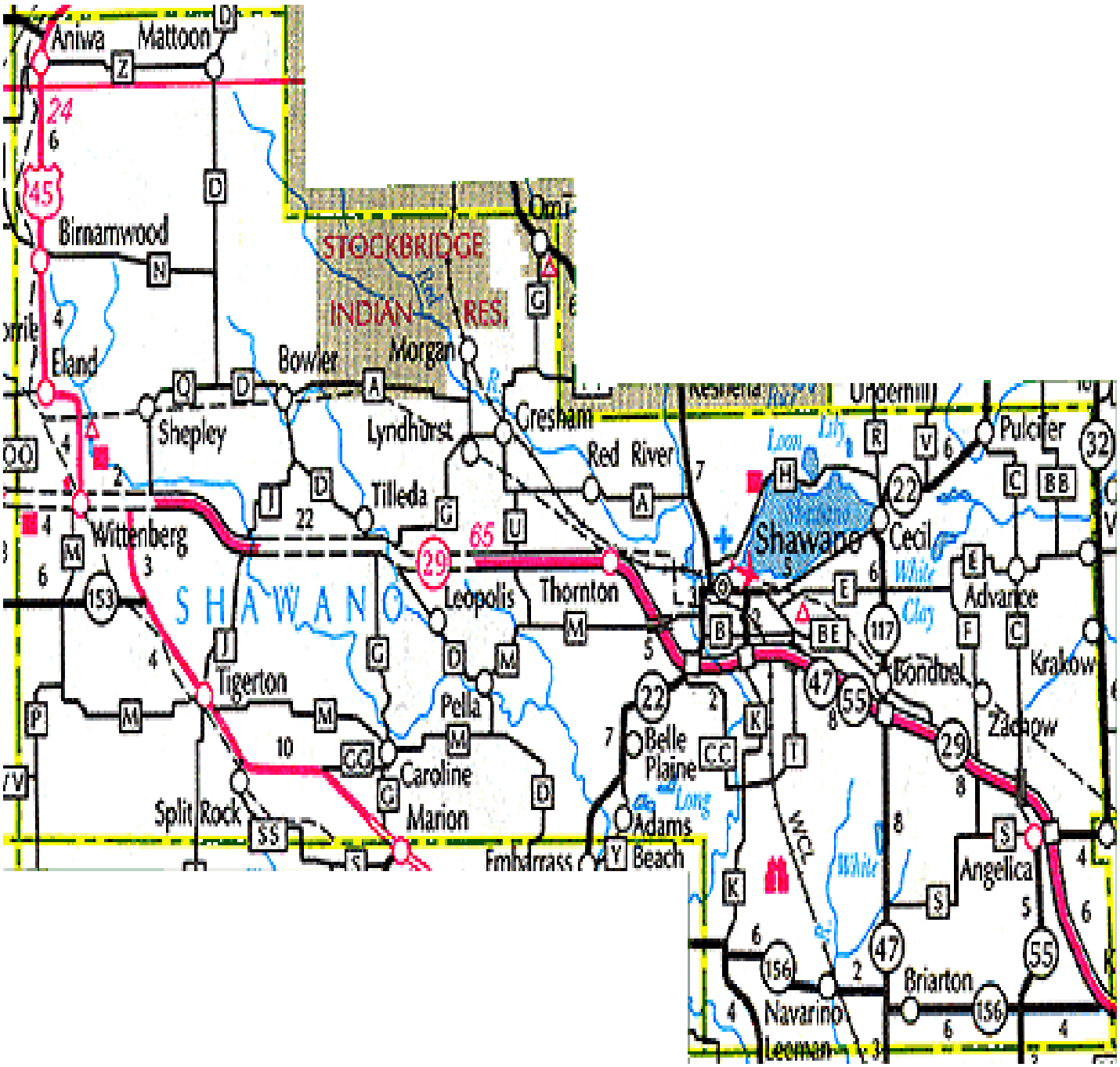
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

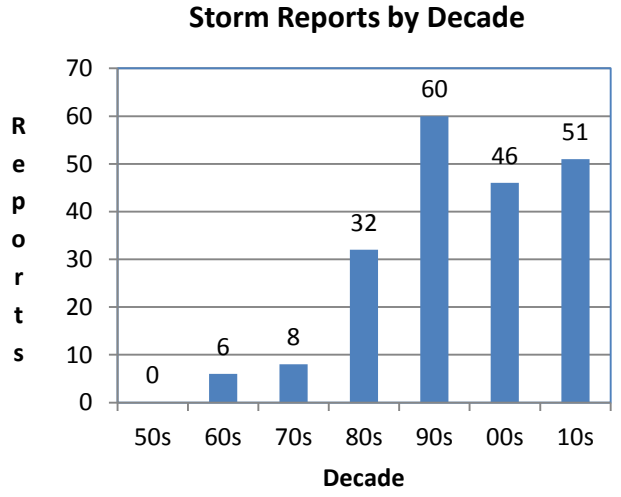
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Shawano County Severe Weather Facts (1950-2015)

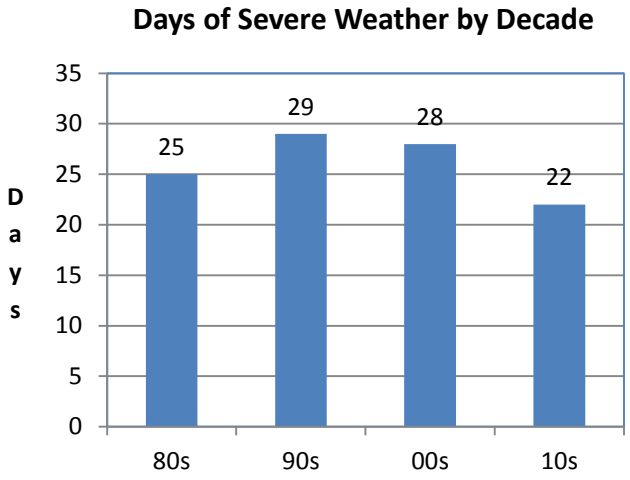


Shawano County Severe Weather Facts (1950-2015)



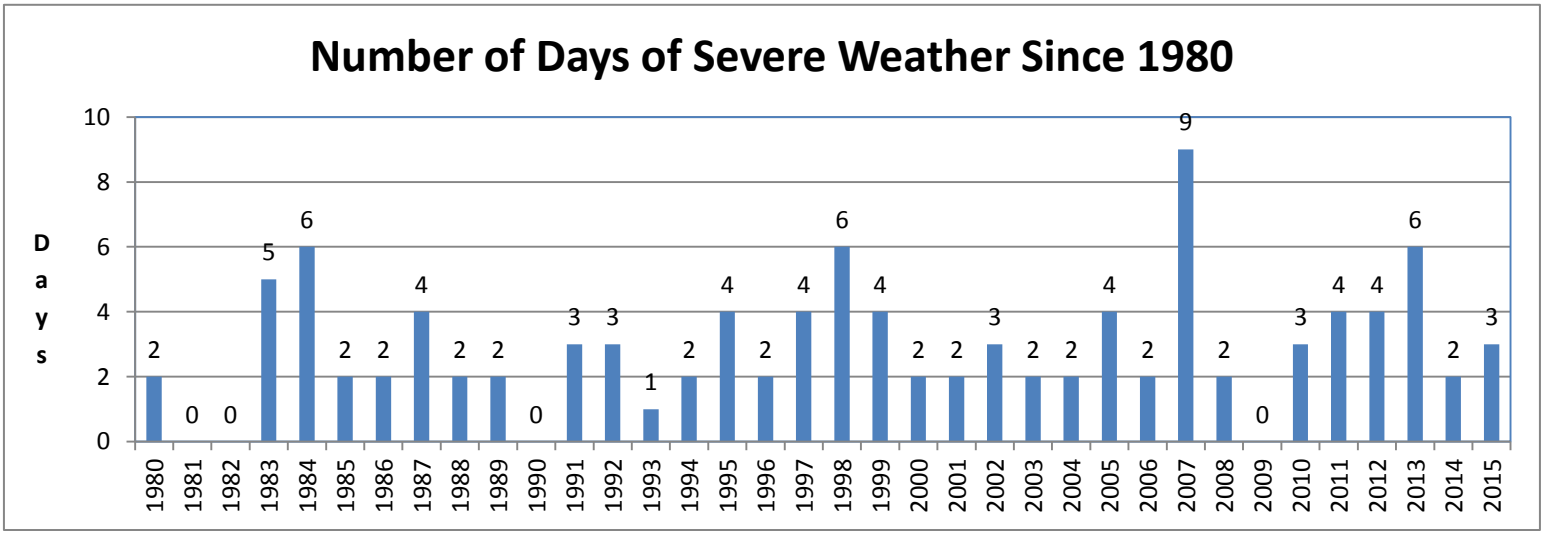
Storm Reports by Decade

Since 1950 there have been 203 documented reports of large hail, damaging winds and tornadoes across Shawano County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 43 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

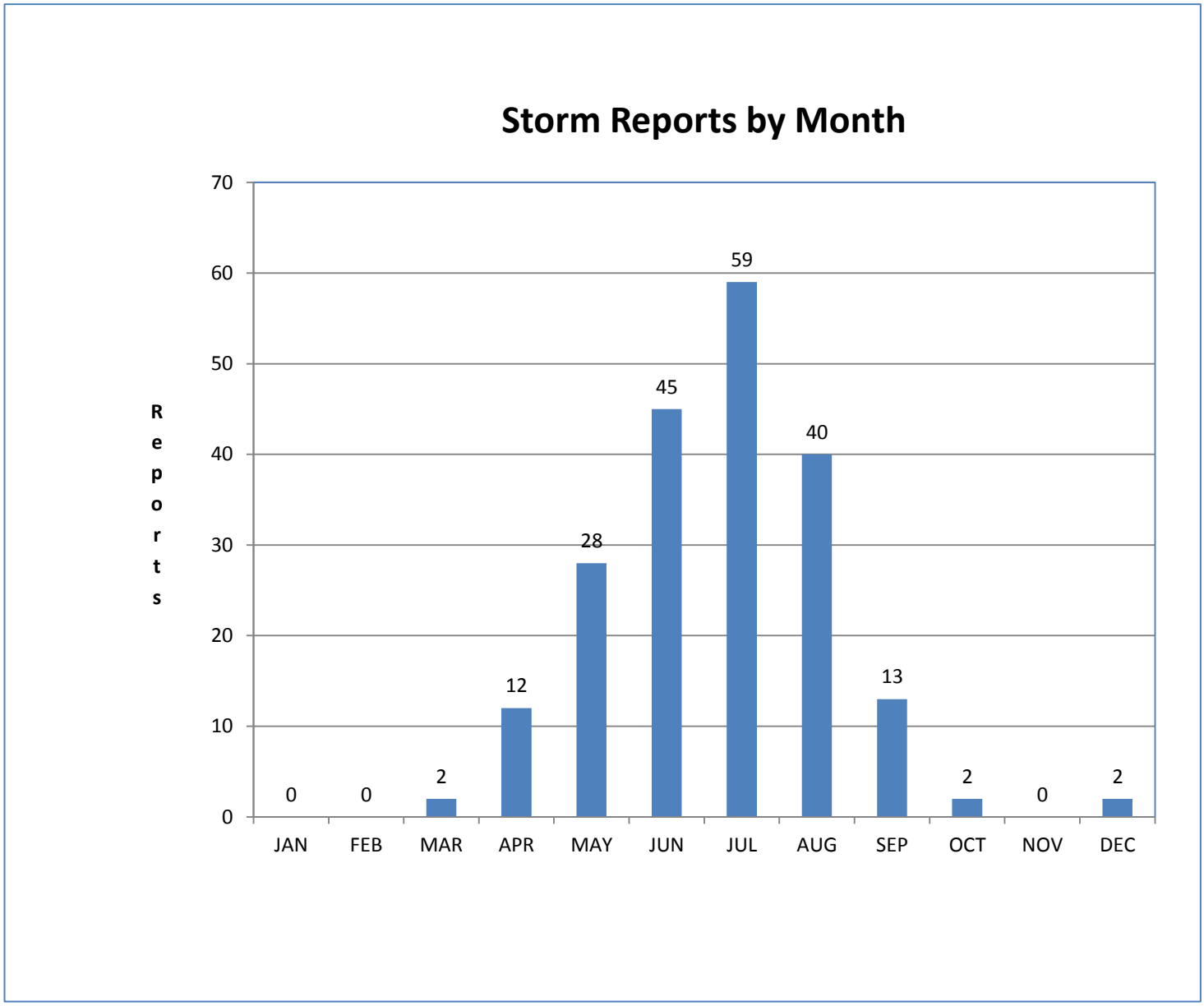
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 173 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Shawano County averages 3.7 days of severe weather in a given year. The long term average from 1980-2015 is 2.9 days. The most active year was 2007 with nine days of severe weather; followed by six days in 1984, 1998, and 2013; and five days in 1983.



Shawano County Severe Weather Facts (1950-2015)

Storm Reports by Month

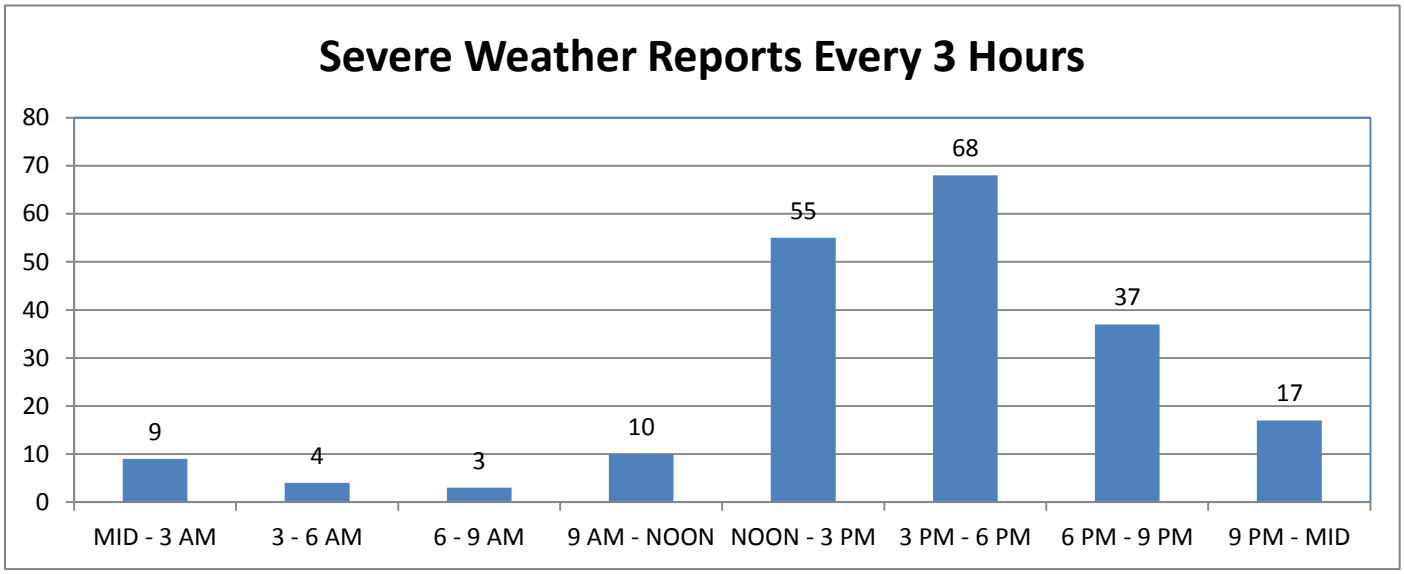
Severe weather has been recorded in Shawano County from March through October with an out of season rare tornado event in December. Isolated events have occurred in March. The earliest documented report of large hail during the year occurred on March 8, 2000. Three quarter inch hail was reported five miles west northwest of Shawano. The severe weather season begins in earnest in April. The heart of the convective season occurs in June and July, which accounts for over half (51%) of all severe weather reports. July is the peak month for severe weather and then the severe weather season quickly wanes by September. The warm season period of May through September accounts for ninety-one percent of all severe weather reports during the year. Severe weather can occur from time to time in September while isolated events have occurred in October and December. The latest report of severe weather during the year occurred on December 1, 1970. On this date, two tornadoes touched down during the morning between 945 and 1030 am. The first tornado developed four miles northwest of Iola and moved to near Pella. The second tornado rated as an F/EF-3 developed near Medina in Outagamie County and moved to near Rose Lawn as an F/EF-2 before dissipating.

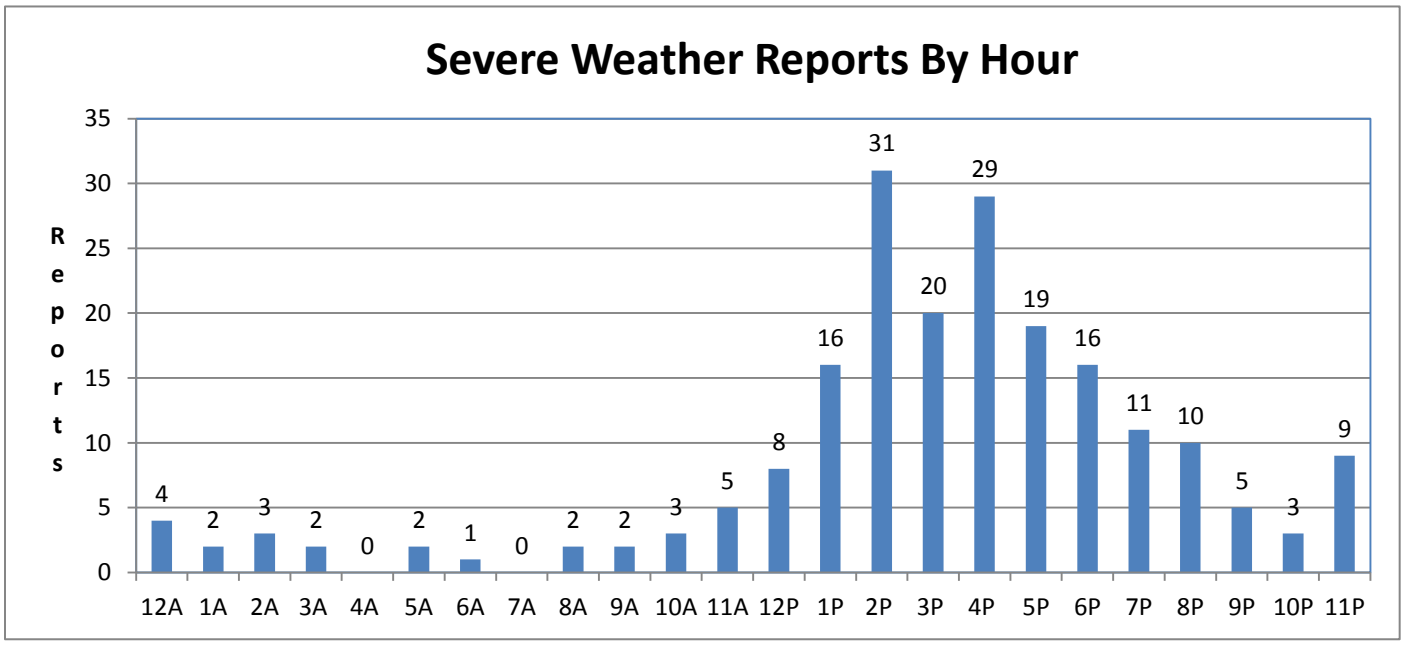


Shawano County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Shawano County. Seventy-five percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Shawano County, severe weather reports increased sharply after 1 pm with a peak in reports between 2 pm and 6 pm. The peak in the storm activity corresponded to the afternoon heating combined with timing of cold fronts moving across northeast Wisconsin to produce severe weather. Scattered reports of severe weather were noted through the evening. Between June and August, there is a peak in overnight activity between midnight and 6 am. In these events, convection that develops across Minnesota and the Dakotas moves into the county overnight.

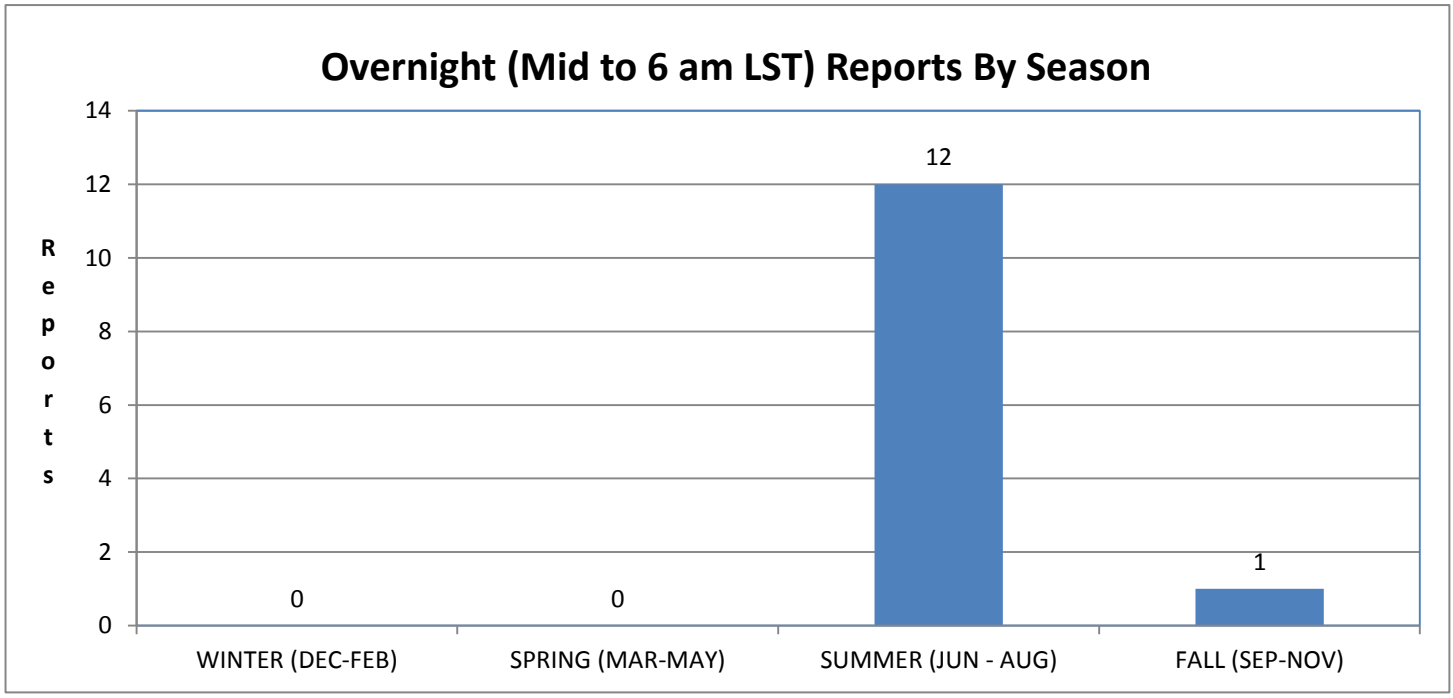




Shawano County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 92% of all overnight severe weather reports during the year.



Shawano County Severe Weather Facts (1950-2015)

Shawano County Tornadoes

Since record keeping began in 1950, there have been eighteen documented tornadoes in Shawano County. Of the eighteen tornadoes, two have been rated an F/EF-3 or greater intensity. On June 26, 1969, an F/EF-3 tornado touched down near Black Creek and moved to near Pulaski. Another F/EF-3 tornado occurred on April 27, 1984. The tornado touched down near Union and moved to near Legend Lake before dissipating. Four other tornadoes were rated F/EF-2 intensity (see table below) while twelve tornadoes were rated F/EF-0 or F/EF-1. In 2015, two tornadoes were reported across the county. The first tornado touched down near Morgan on May 17th. On July 6, a tornado touched down briefly just east of the Pella airport. What made this event unusual was the fact there was no lightning or thunder associated with the storm. The most active years were 1970, 1980, 1984, 2007 and 2015 with two tornadoes. A tornado was reported in three consecutive years from 1968 to 1970. Since 1950, tornadoes have touched down in thirteen different years. A tornado strike in Shawano County usually occurs on average about every three and a half years.

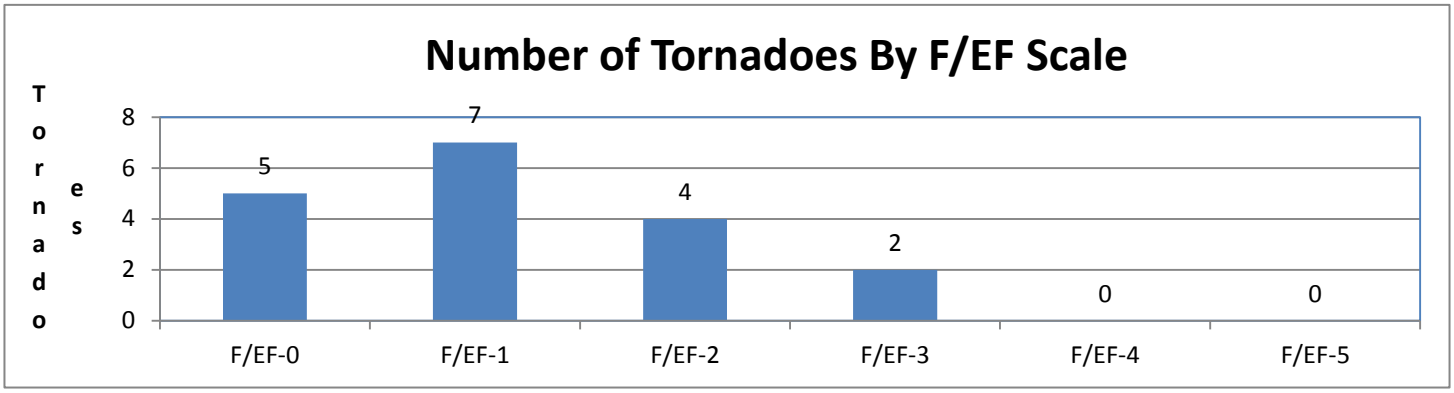
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		6	9	1964	1455	Belle Plaine	1
2		8	16	1968	2120	5 SE Hofa Park	2
3		6	26	1969	1115-1130	Black Creek - Pulaski	3
4		12	1	1970	945-1030	4 NW Iola - Pella	2
5		12	1	1970	1010-1020	Medina to Rose Lawn	2
6		4	12	1974	1415	Wittenberg - Bowler	2
7		5	30	1980	1430	4 S Shawano	1
8		9	20	1980	2315	Mattoon	1
9		7	3	1983	1900	Birnamwood	1
10		4	27	1984	1455-1540	Union - Legend Lake	3
11		6	26	1984	1900	Caroline	1
12		9	14	1991	1800	2 W Green Valley	0
13		7	8	1994	1416	3 SE Aniwa	1
14		6	3	2007	1811	1.6 ESE Shawano	0
15		6	7	2007	1531-1532	1.7 ENE to 2.7 ENE Mattoon	1
16		8	23	2011	1756-1757	0.9 SE - 1.1 SE Briarton	0
17		5	17	2015	1431-1440	1.6 WSW - 3.4 NE Morgan	0
18		7	6	2015	1603-1604	1.1 E Pella Airport	0

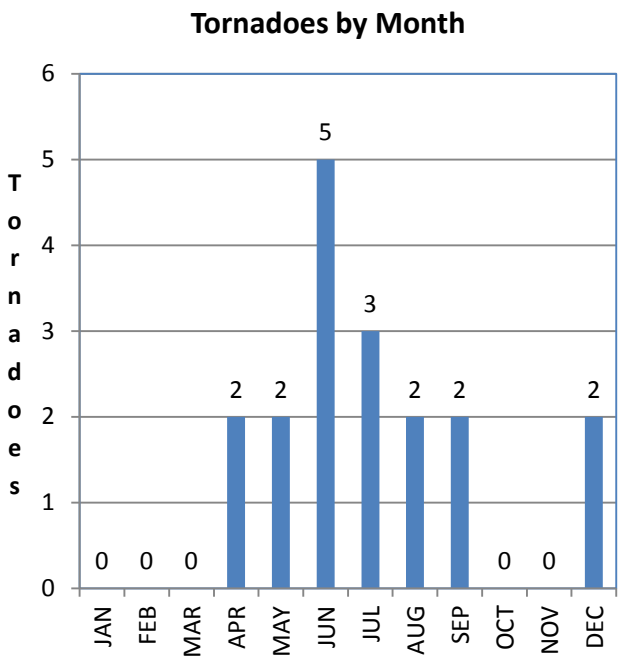
Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate

F/EF-2 or Greater Tornadoes in Shawano County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
2		8	16	1968	2120	5 SE Hofa Park	2
3		6	26	1969	1115-1130	Black Creek - Pulaski	3
4		12	1	1970	945-1030	4 NW Iola - Pella	2
5		12	1	1970	1010-1020	Medina to Rose Lawn	2
6		4	12	1974	1415	Wittenberg - Bowler	2
10		4	27	1984	1455-1540	Union - Legend Lake	3

Shawano County Severe Weather Facts (1950-2015)



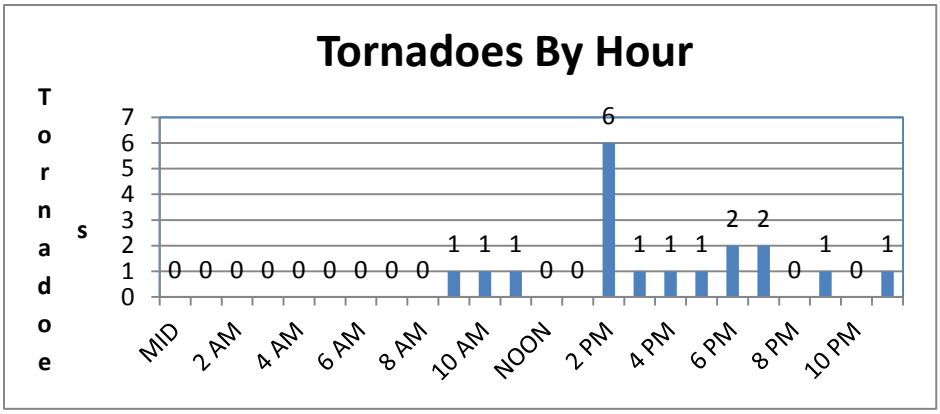


Tornadoes by Month

Documented tornadoes have occurred from April to September with a rare tornado event in December. The earliest documented tornado during the year occurred on April 12, 1974. On this date, an F/EF-2 tornado developed near Wittenberg and moved to near Bowler. The tornado season peaks in June. The warm season months of May through September account for seventy-eight percent of all tornadoes during the year. The latest tornadoes on record during the year occurred on December 1, 1970. On this date, two tornadoes touched down during the morning between 945 and 1030 am. The first tornado developed four miles northwest of Iola and moved to near Pella. The second tornado developed near Medina in Outagamie County which was rated as an F/EF-3 and moved to near Rose Lawn in Shawano County (rated F/EF-2). The last tornado to strike Shawano County occurred on July 6, 2015 when an F/EF-0 touched down just east of the Pella airport.

Tornadoes by Hour

In Shawano County, thirteen of the eighteen (72%) documented tornadoes have occurred between 2 pm and 8 pm local standard time. There have been no documented tornadoes between midnight and 9 am local standard time.



Shawano County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March and April, large hail is the dominant weather report. The atmosphere aloft is still cold to support large hail reaching the ground. Over the remainder of the convective season, the dominant reports are strong wind gusts and wind damage. A warm and humid atmosphere is more conducive for severe storms to produce damaging winds compared to large hail. Over the course of the year, strong wind gusts or wind damage were reported nearly three out of four times compared to large hail reports. In the Green Bay forecast area which includes 22 counties in north central and northeast Wisconsin, Shawano County has the highest percentage of strong winds or wind damage reports compared to large hail reports.

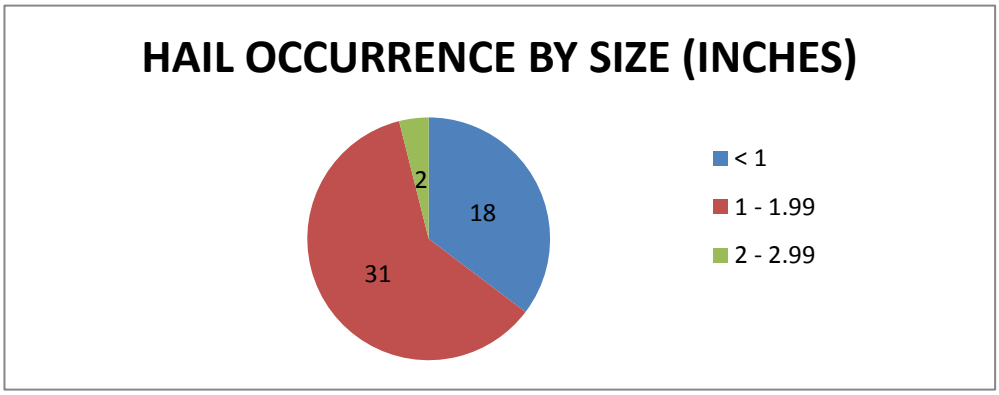
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	12.7	87.3
Feb	0.0	0.0	Aug	28.9	71.1
Mar	100.0	0.0	Sep	9.1	90.9
Apr	70.0	30.0	Oct	50.0	50.0
May	44.4	55.6	Nov	0.0	0.0
Jun	20.0	80.0	Dec	0.0	0.0
			Year	23.7	76.3

Large Hail in Shawano County

There has been only two documented report of hail two inches or greater in diameter across the county. The largest hail stone of 2.5 inches in diameter was reported five miles west southwest of Navarino on April 15, 2003 and in Krakow on August 2, 2015. Overall, hail ranging in size from three quarters to one inch accounted for fifty-one percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for four percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		4	15	2003	1800	5 WSW Navarino	2.50
2		8	2	2015	1412	Krakow	2.50



Shawano County Severe Weather Facts (1950-2015)

Shawano County Summary

In Shawano County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. An out of season tornado outbreak occurred on December 1, 1970 when two tornadoes hit the county during the morning. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring. Damaging winds or large hail will be the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Shawano County ranks tied 11th in the total number of storm reports and 15th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Shawano County Severe Weather Facts (1950-2015)

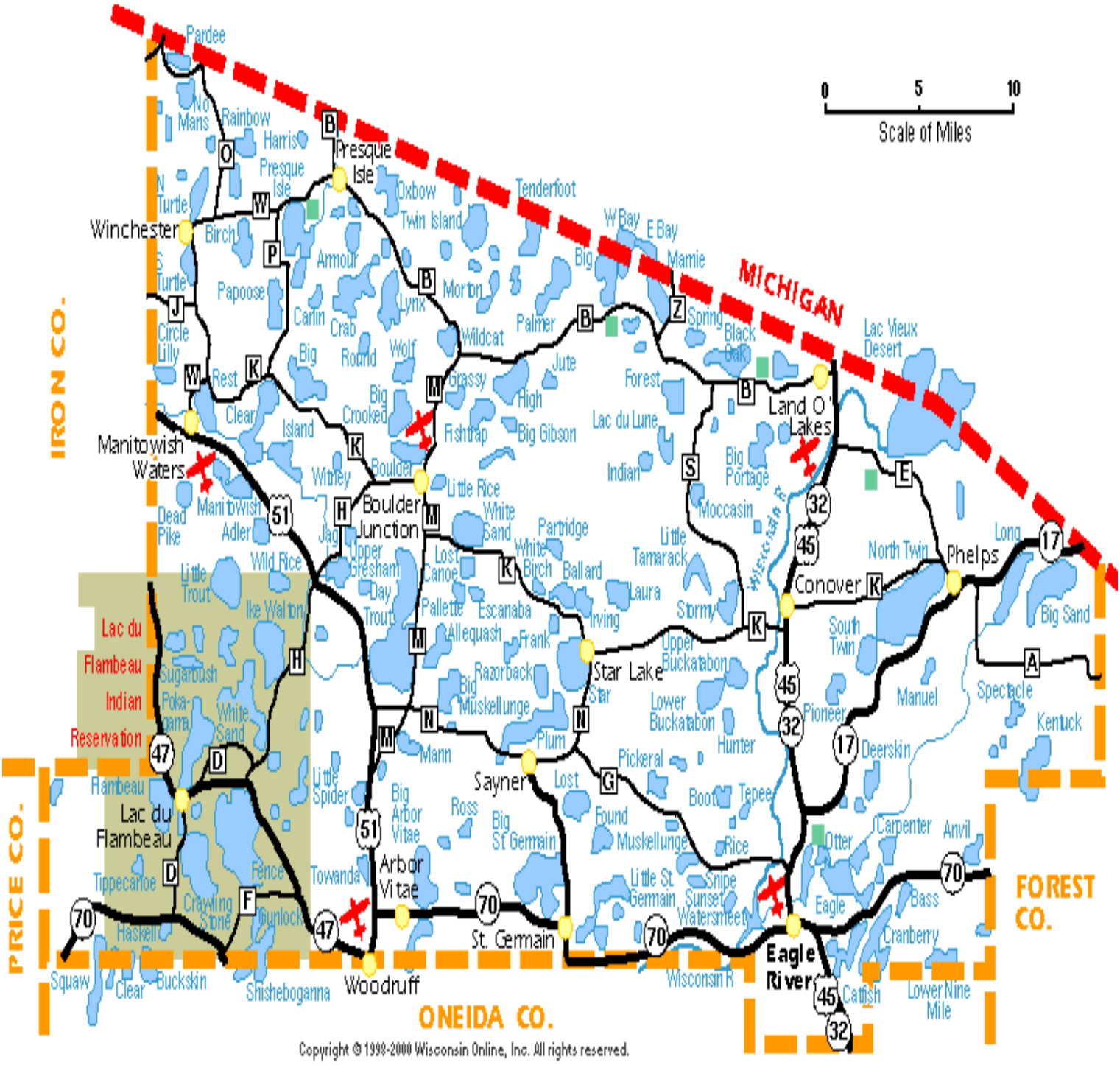
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

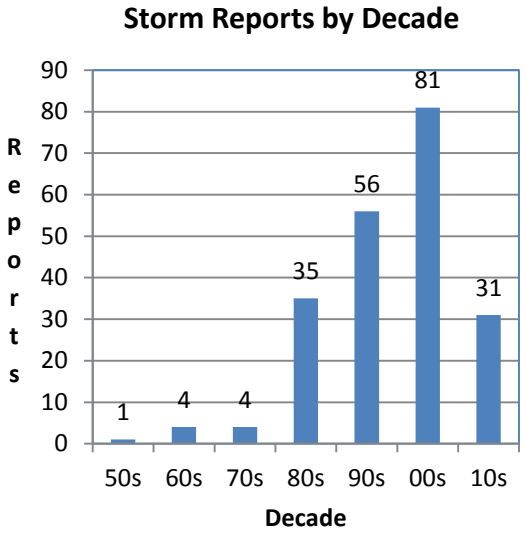
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Vilas County Severe Weather Facts (1950-2015)

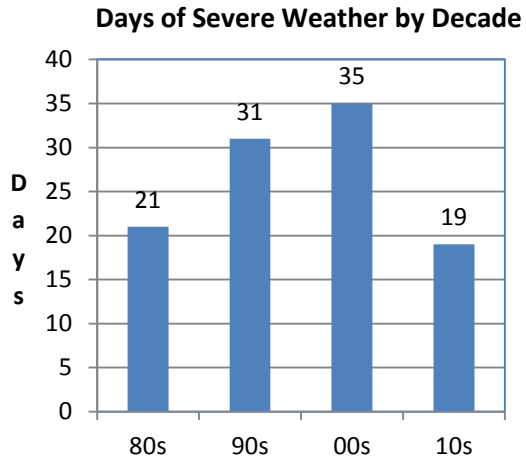


Vilas County Severe Weather Facts (1950-2015)



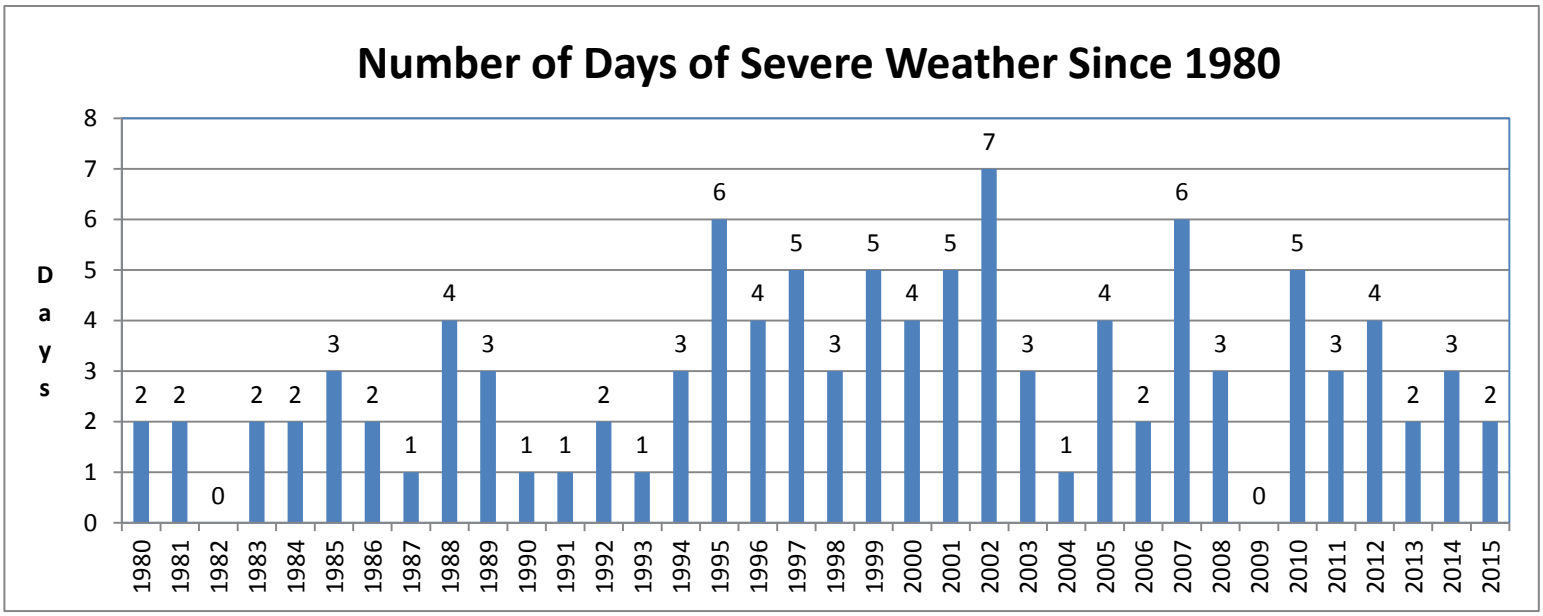
Storm Reports by Decade

Since 1950 there have been 212 documented reports of large hail, damaging winds and tornadoes across Vilas County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 131 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

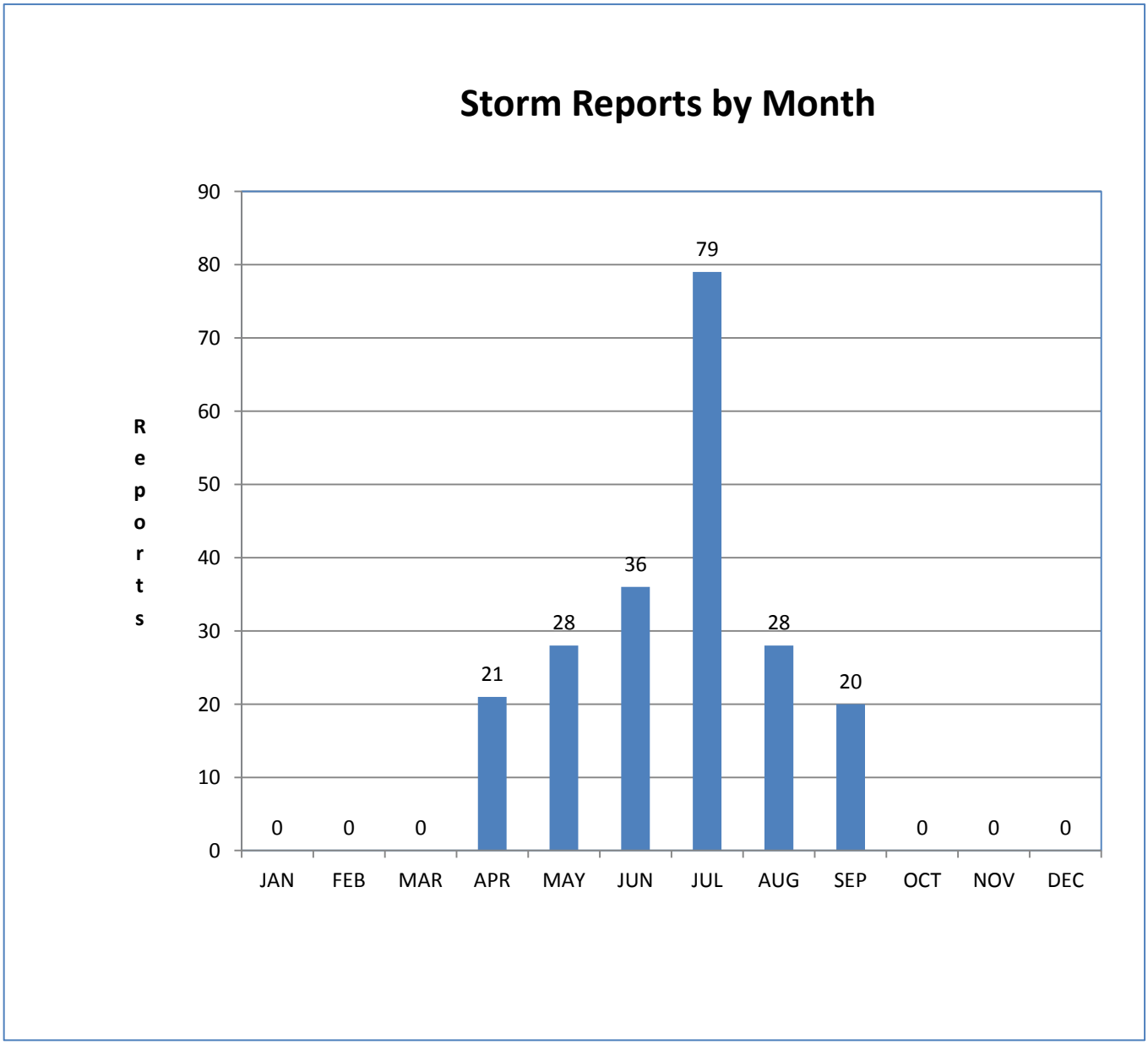
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 67 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Vilas County averages 3.2 days of severe weather in a given year. The long term average from 1980-2015 is 2.9 days. The most active year was 2002 with seven days of severe weather, followed by six days of severe weather in 1995 and 2007.



Vilas County Severe Weather Facts (1950-2015)

Storm Reports by Month

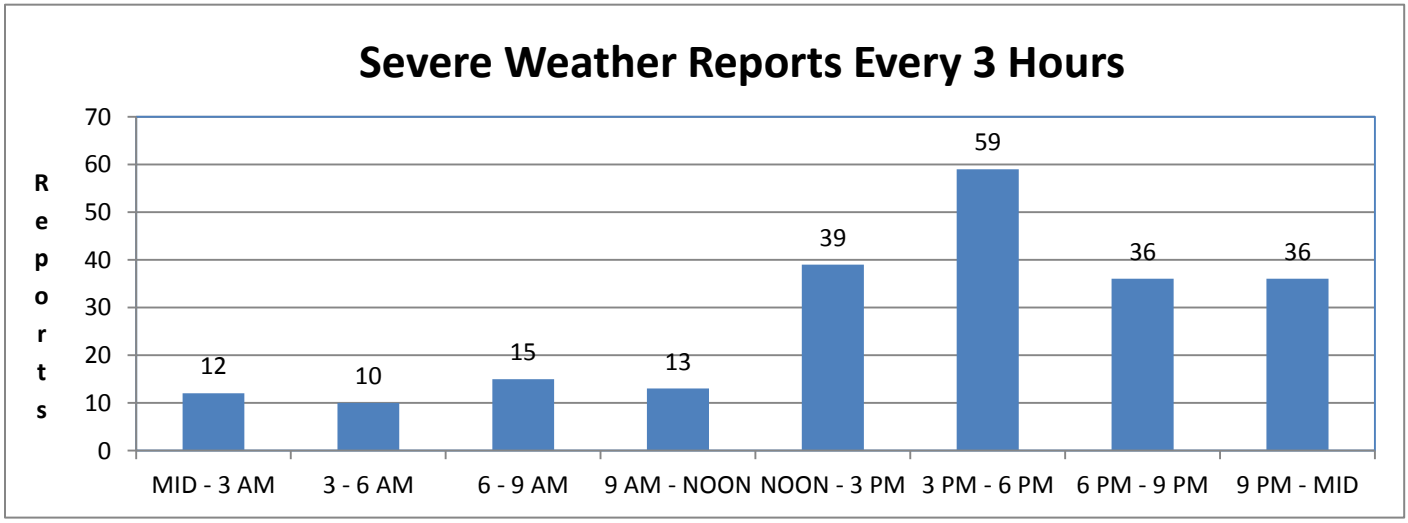
Severe weather has been recorded in Vilas County from April through September. The severe weather season begins in earnest in April. The earliest documented report of severe weather during the year occurred on April 14, 2003. On this date, penny to nickel size hail was reported at Eagle River, Conover, Boulder Junction and Presque Isle. The convective season peaks in July and then wanes quickly by September. The warm season period of May through September accounts for ninety percent of all severe weather reports during the year. Severe weather can occur from time to time in September. The latest report of severe weather during the year occurred on September 30, 2002. On this date, golf ball size hail was reported at Conover while golf ball to tennis ball size hail was reported from Arbor Vitae to St. Germain.

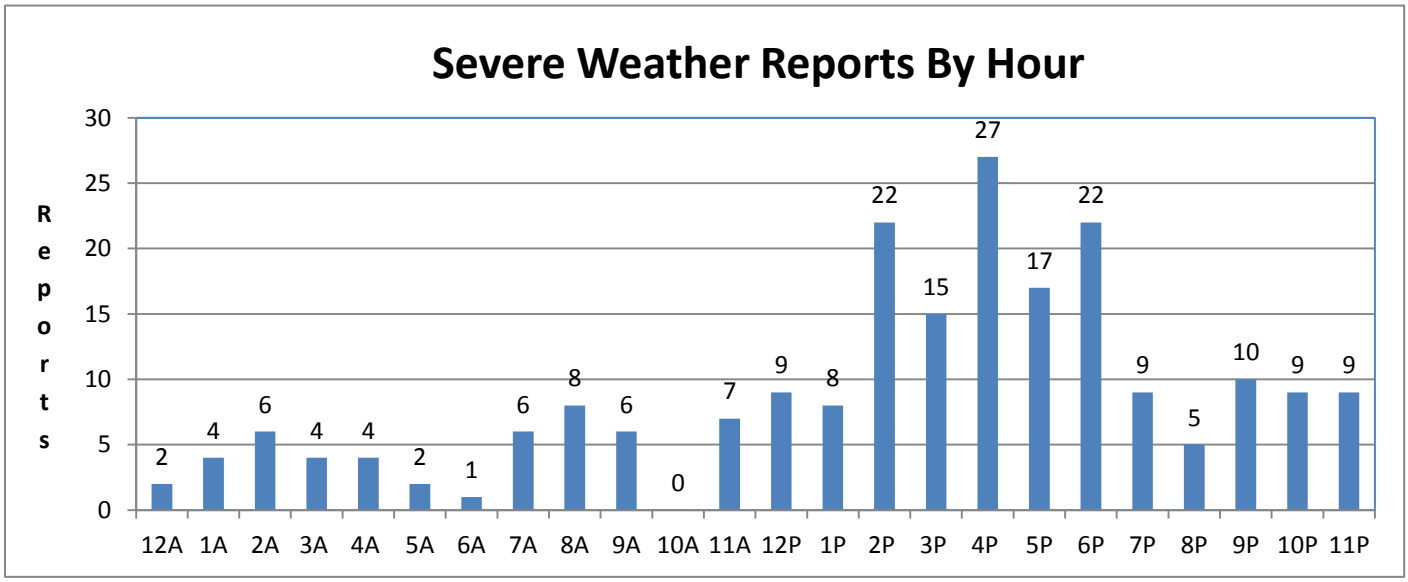


Vilas County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Vilas County. Fifty-nine percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Vilas County, severe weather reports increased sharply after 1 pm with a peak in reports between 2 pm and 7 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. There was another minor peak in the number of reports from midnight to 6 am during the summer months. In these events, thunderstorms that develop across the Dakotas and Minnesota move eastward into the county overnight.

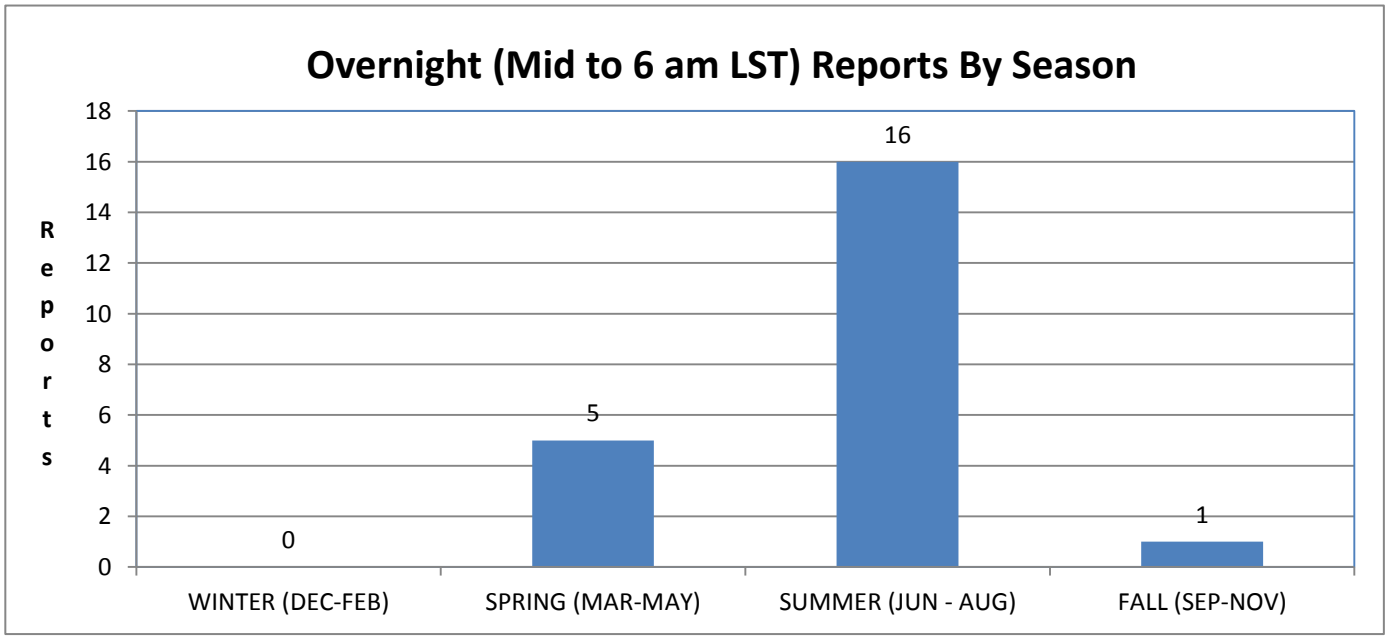




Vilas County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 73% of all overnight severe weather reports during the year.



Vilas County Severe Weather Facts (1950-2015)

Vilas County Tornadoes

Since record keeping began in 1950, there have been fourteen documented tornadoes across the county. Of the fourteen tornadoes, one tornado was rated an F/EF-3 or greater intensity. On April 27, 1984, an F/EF-3 tornado touched down near Fawn Lake and moved to near Star Lake before dissipating. There was one F/EF-2 tornado while twelve tornadoes were rated at F/EF-0 or F/EF-1. The most active year was 1988 with three tornadoes; while 1969 was the second most active year with two tornadoes. A tornado was reported in consecutive years in 1969 and 1970 and again in 1994 and 1995. The last tornado to strike Vilas County occurred on July 14, 1995 when an F/EF-1 tornado struck Phelps. Since 1950, tornadoes have touched down in eleven different years. A tornado strike in Vilas County usually occurs about once in every four and a half years.

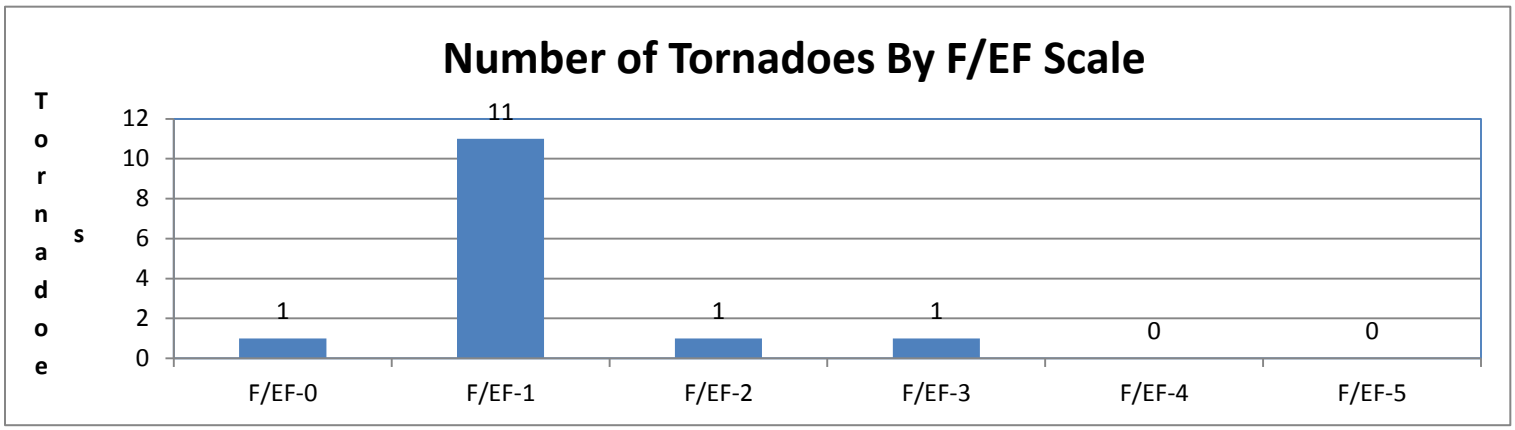
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	4	1964	1800-1810	Saint Germain	1
2		6	26	1969	1630	2 W Manitowish Waters - 3 SW Presque Is.	1
3		6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	2
4		7	7	1970	1900	Winchester - Boulder Junction - Conover	1
5		7	12	1973	0300	Boulder Junction - Sayner	1
6		6	13	1981	2045	Sayner - 3 NE Sayner	1
7		7	3	1983	0439	Eagle River	1
8		4	27	1984	1437-1507	Fawn Lake - Star Lake	3
9		7	24	1986	1415	Saint Germain	1
10		7	29	1988	2030	Eagle River	1
11		8	1	1988	1852	1 W Saint Germain	1
12		8	1	1988	1922	2 SE Eagle River	0
13		4	26	1994	1455-1505	1.5 N Conover - 3 SE Land O'Lakes	1
14		7	14	1995	1640-1647	Phelps	1

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

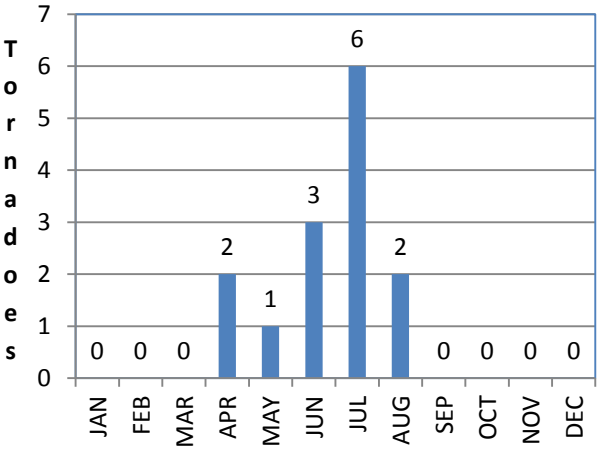
F/EF-2 or Greater Tornadoes in Vilas County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
2		6	26	1969	1700	Lac Du Flambeau - 9 NW Land O Lakes	2
8		4	27	1984	1437-1507	Fawn Lake - Star Lake	3

Vilas County Severe Weather Facts (1950-2015)



Tornadoes by Month

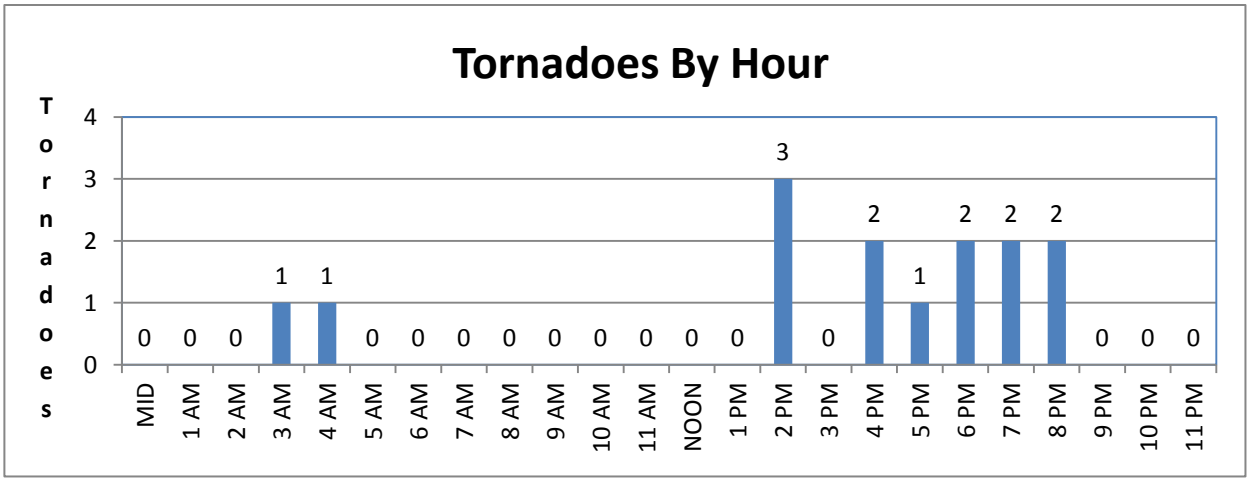


Tornadoes by Month

Documented tornadoes have occurred from April to August. The earliest documented tornado during the year occurred on April 26, 1994. On this date, an F/EF-1 tornado developed one and a half miles north of Conover and moved to three miles southeast of Land O Lakes before dissipating. The tornado season peaks in June and July, which accounts for sixty-four percent of all tornado reports. The warm season months of May through August account for eighty-six percent of all tornadoes during the year. The latest tornadoes on record during the year occurred on August 1, 1988. On this date, two tornadoes struck the county. The first tornado briefly touched down one mile west of St. Germain; while the second tornado touched down two miles southeast of Eagle River.

Tornadoes by Hour

In Vilas County, twelve of the fourteen (eighty-six percent) documented tornadoes have occurred between 2 pm and 9 pm local standard time. There have been no documented tornadoes between 9 pm and 3 am, and from 5 am to 1 pm local standard time. The two overnight tornado events occurred on July 12, 1973 when an F/EF-1 struck between Boulder Junction and Sayner, and the second event occurred on July 3, 1983 when an F/EF-1 tornado struck Eagle River.



Vilas County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During April, large hail is the dominant weather report. The atmosphere is still cold aloft to support large hail reaching the ground. Over the remainder of the convective season, nearly six out of ten reports are strong wind gusts and wind damage compared to large hail. During the summer however, over seven out of ten reports are strong winds and wind damage.

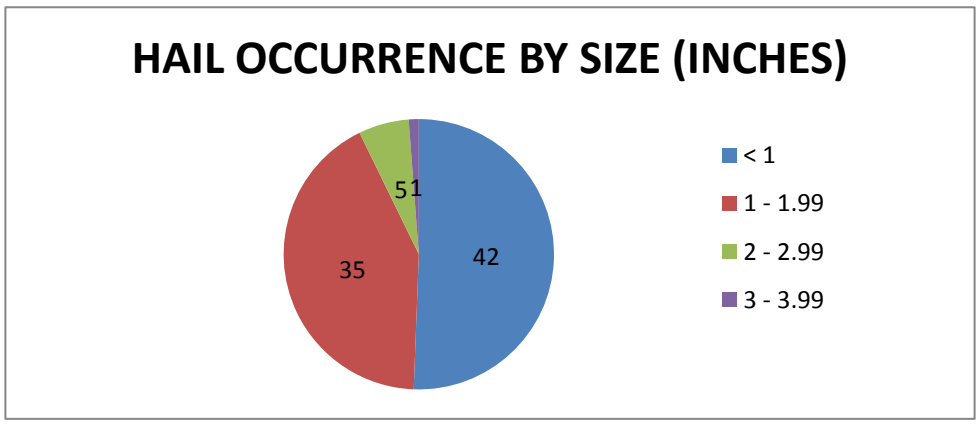
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	31.5	68.5
Feb	0.0	0.0	Aug	30.8	69.2
Mar	0.0	0.0	Sep	50.0	50.0
Apr	89.5	10.5	Oct	0.0	0.0
May	55.6	44.4	Nov	0.0	0.0
Jun	30.3	69.7	Dec	0.0	0.0
			Year	41.9	58.1

Large Hail in Vilas County

There have been six documented reports of hail two inches or greater in diameter across the county. The largest hail stone three inches in diameter was reported from three miles south to eight miles southeast of Eagle River on June 5, 1999. The last report of hail of two inches or greater occurred on May 25, 2008 when two inch hail fell in Eagle River. Overall, hail ranging in size from three quarters to one inch accounted for sixty-seven percent of the documented reports. Large hail reports of two inches or greater only accounted for seven percent of all reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		9	13	1993	0750	Arbor Vitae	2.00
2		6	5	1999	1835	3 S to 8 SE Eagle River	3.00
3		9	30	2002	1647	Arbor Vitae to St. Germain	2.50
4		5	25	2008	1405	2.5 NW Lac Du Flambeau	2.00
5		5	25	2008	1422	2.1 NNW St. Germain	2.00
6		5	25	2008	1437	Eagle River	2.00



Vilas County Severe Weather Facts (1950-2015)

Vilas County Summary

In Vilas County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring. Damaging winds or reports of strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Vilas County ranks 9th in the total number of storm reports and 16th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Vilas County Severe Weather Facts (1950-2015)

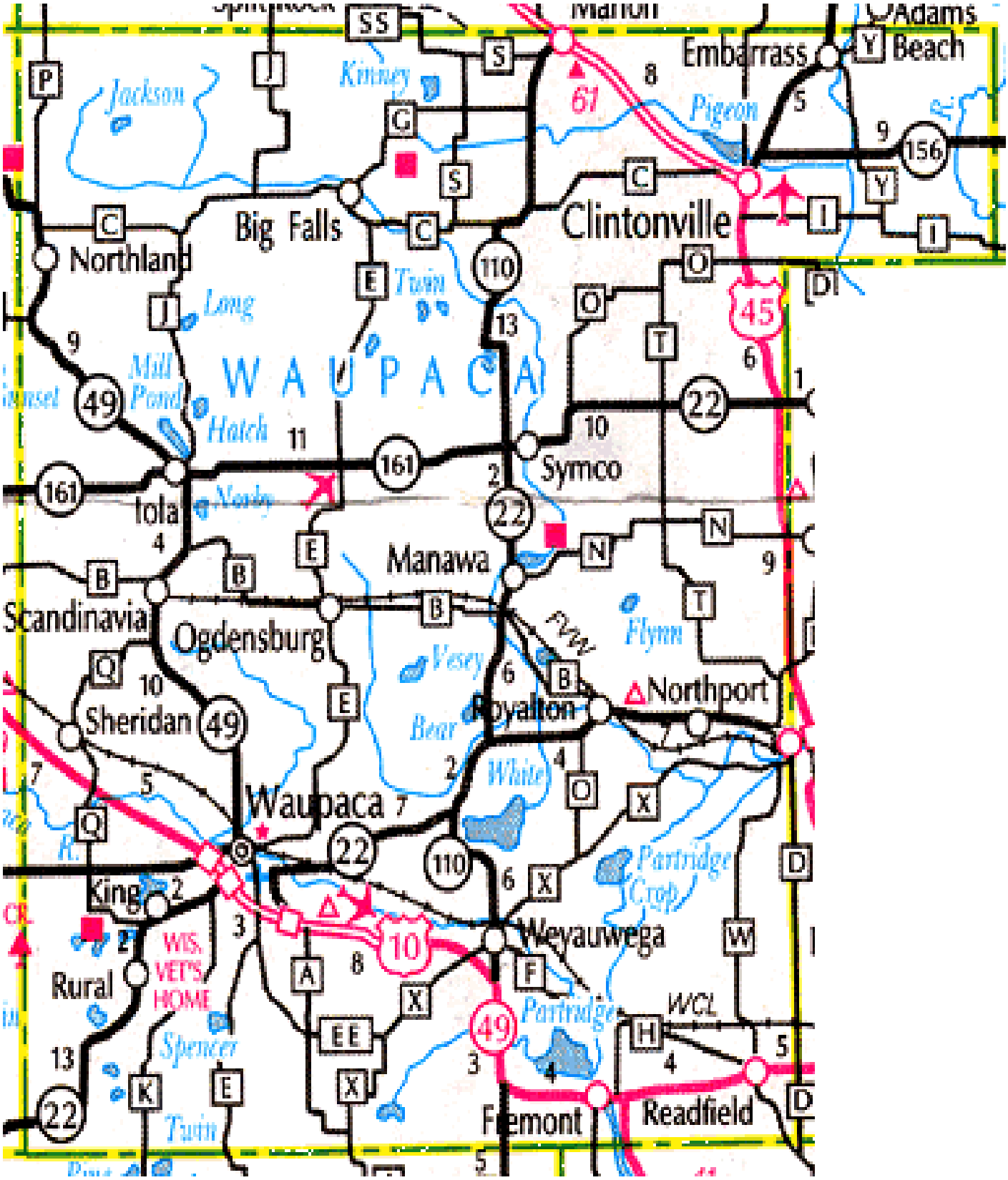
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

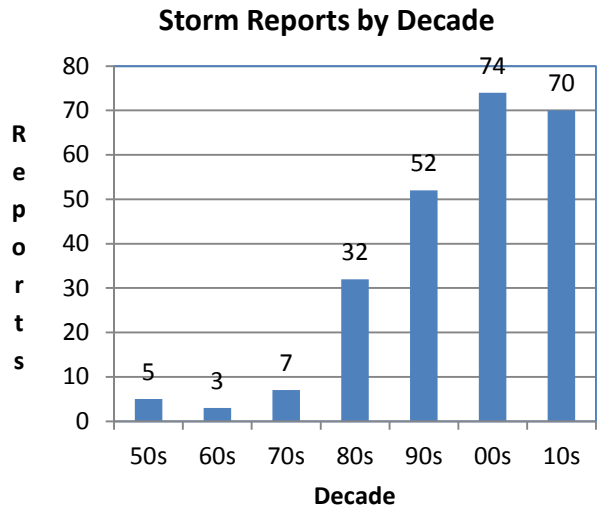
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Waupaca County Severe Weather Facts (1950-2015)

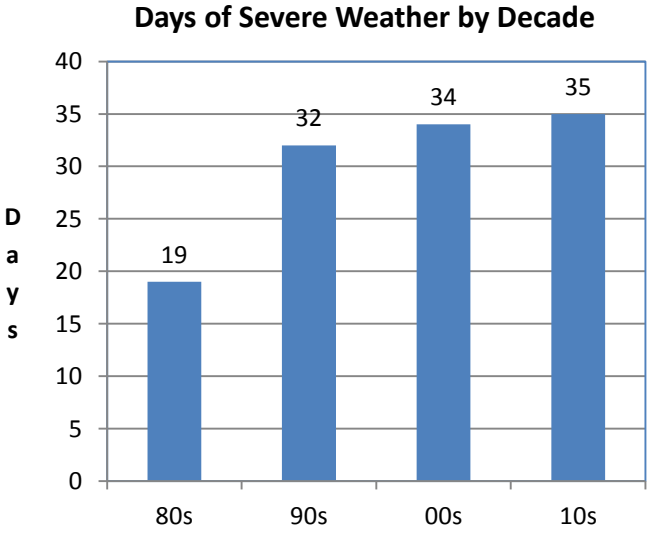


Waupaca County Severe Weather Facts (1950-2015)



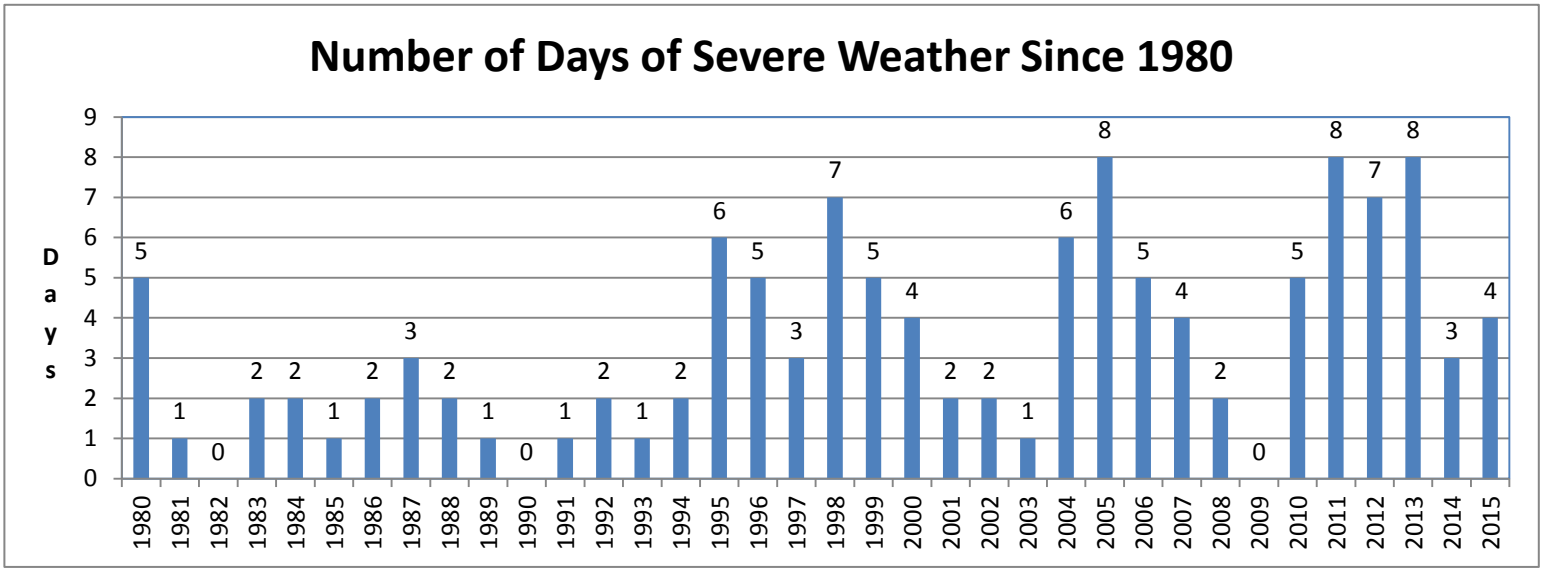
Storm Reports by Decade

Since 1950 there have been 243 documented reports of large hail, damaging winds and tornadoes across Waupaca County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 131 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

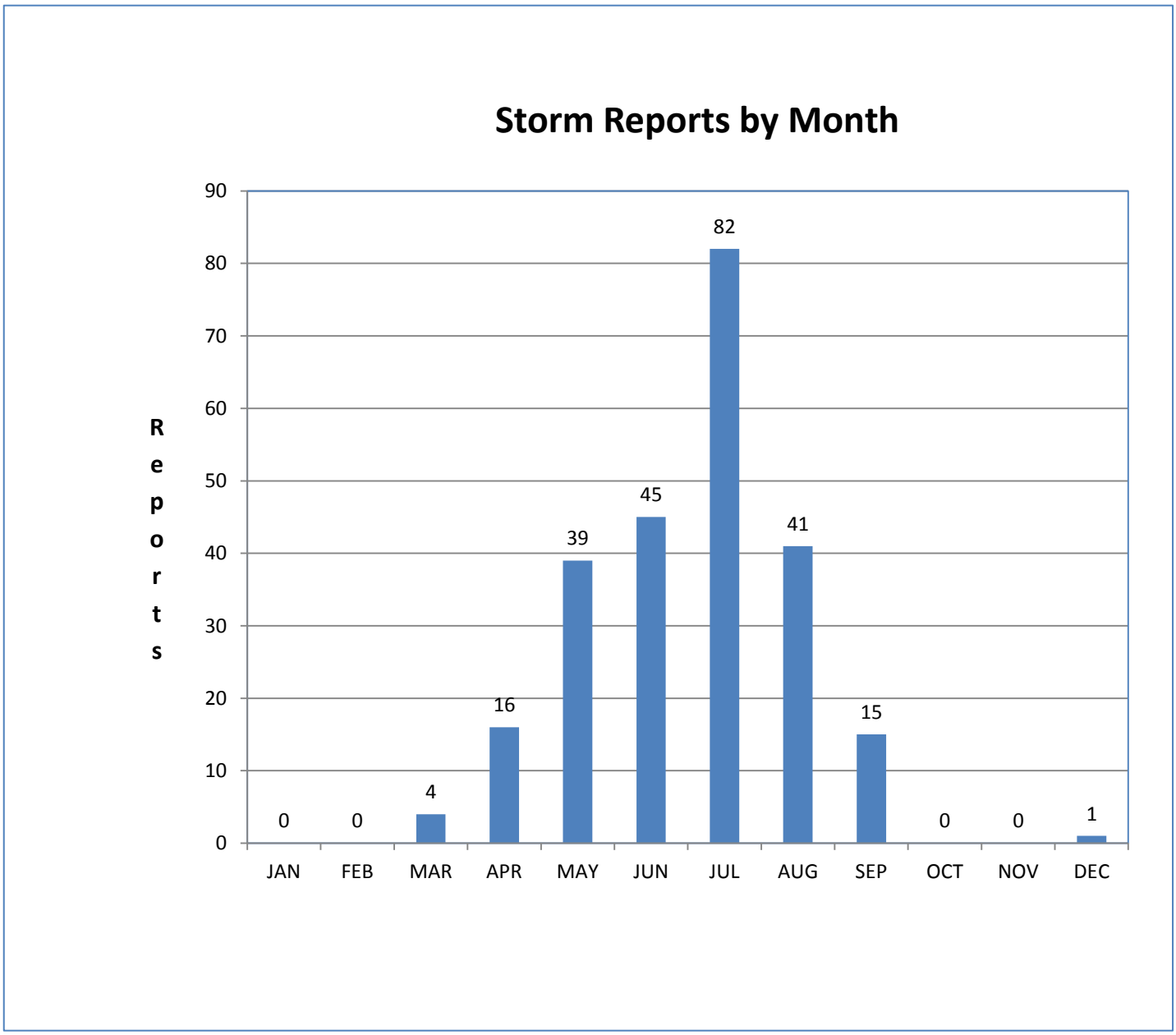
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 79 percent in the number of days of severe weather from the 1980s to the 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Waupaca County averages 5.8 days of severe weather in a given year. The long term average from 1980-2015 is 3.3 days. The most active years were 2005, 2011 and 2013 with eight days of severe weather; followed by seven days of severe weather in 1998 and 2012, and six days in 1995 and 2004.



Waupaca County Severe Weather Facts (1950-2015)

Storm Reports by Month

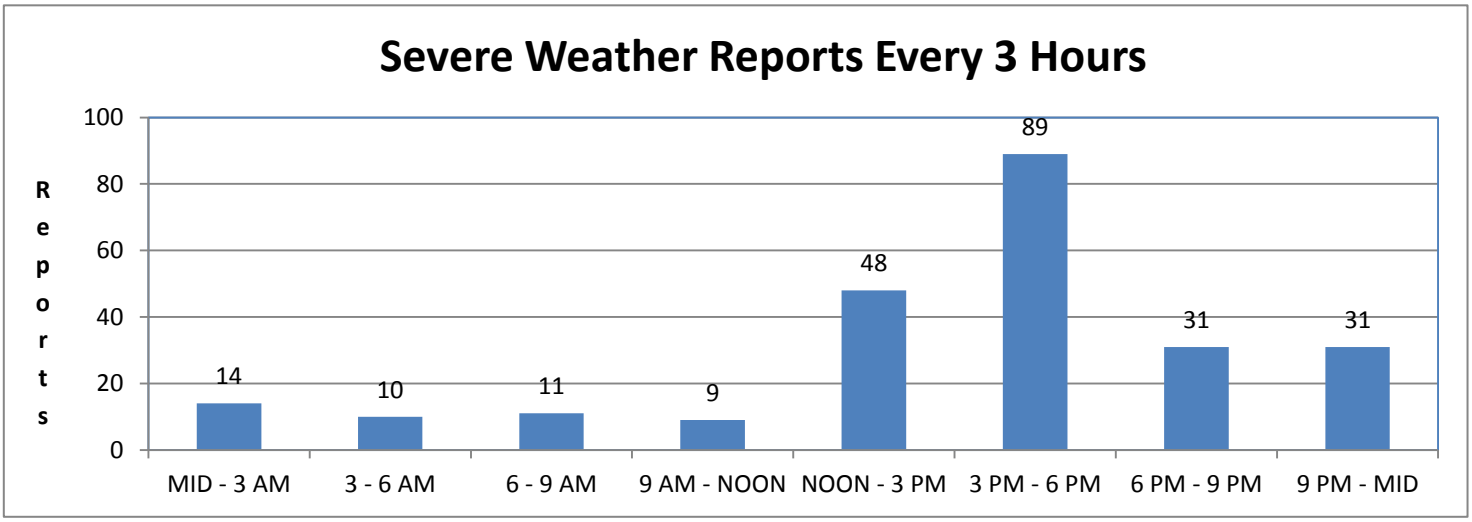
Severe weather has been recorded in Waupaca County from March through September with a very rare tornado event in December. Isolated reports of severe weather have been noted in March. The earliest documented report of severe weather during the year occurred on March 8, 2000. On this date, golf ball size hail was reported two miles west of Waupaca; while one inch hail was reported at Ogdensburg. The severe weather season begins in earnest in April. The convective season peaks in July, then quickly wanes by September. The warm season period of May through September accounts for ninety-one percent of all severe weather reports during the year. Severe weather can occur from time to time in September. The latest report of severe weather during the year occurred on December 1, 1970. On this date, an F/EF-2 tornado developed four miles northwest of Iola and moved to near Pella in Shawano County before dissipating.

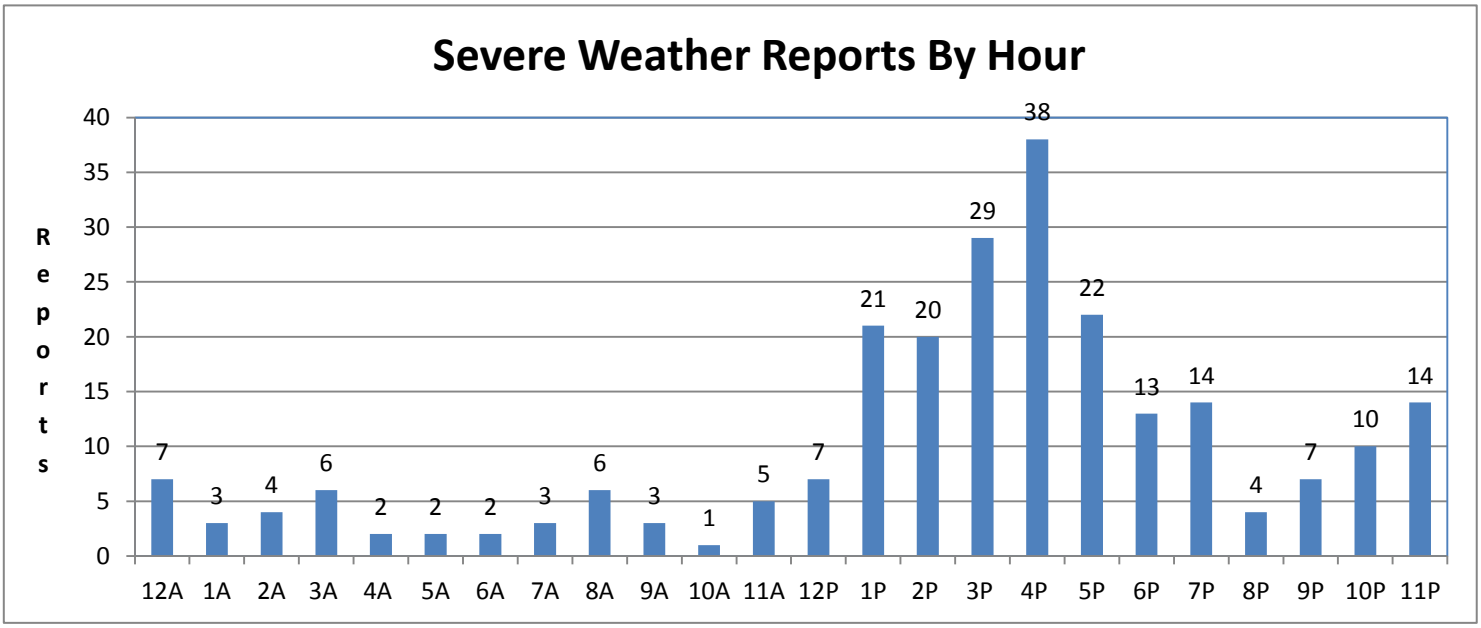


Waupaca County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Waupaca County. Sixty-six percent of all severe weather reports occur between 1 pm and 9 pm local standard time. In Waupaca County, severe weather reports increased sharply after 1 pm with a peak in reports between 3 pm and 6 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. There was another peak in the number of reports between midnight and 6 am between May and August. The later reports overnight correspond to thunderstorms that develop across Minnesota and Dakotas and moves into the county.

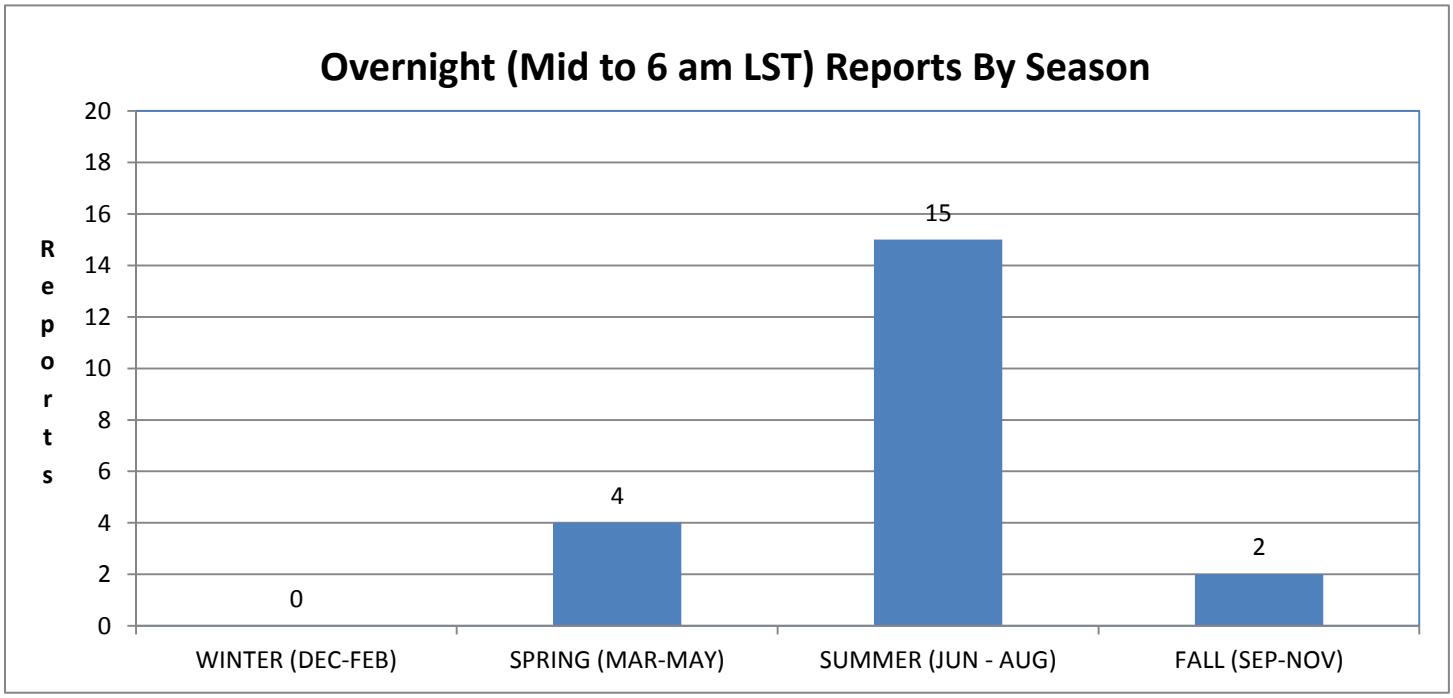




Waupaca County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for 71% of all overnight severe weather reports during the year.



Waupaca County Severe Weather Facts (1950-2015)

Waupaca County Tornadoes

Since record keeping began in 1950, there have been twenty documented tornadoes across the county. Of the twenty tornadoes, three tornadoes were rated an F/EF-3 or greater intensity. The strongest tornado was an F/EF-4, which touched down three miles west of Clintonville and moved northeast to five miles northwest of Clintonville. Two F/EF-3 tornadoes have struck the county. The first F/EF-3 touched down two miles north of Waupaca and moved to near Weyauwega on September 18, 1950. The second F/EF-3 developed near Union and moved to near Legend Lake on April 27, 1984. Six tornadoes were rated F/EF-2 and eleven tornadoes were rated F/EF-0 or F/EF-1. The most active years were 1970, 2005 and 2013 with two tornadoes. The last tornado to strike the county occurred on July 6, 2015 when an F/EF-1 tornado touched down just west of Marion. What made this tornado unusual was there was no lightning or thunder associated with it. A tornado was reported in consecutive years in 1950 and 1951, 1955 and 1956, 1969 and 1970 and again in 2004 and 2005. Since 1950, tornadoes have touched down in seventeen different years. A tornado strike in Waupaca County usually occurs on average about every three and a half years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	18	1950	1430	2 N Waupaca - Weyauwega	3
2		9	26	1951	1545-1608	9 SSW Amherst - Bear Creek	4
3		5	28	1955	1505	3 W Clintonville	1
4		4	6	1956	1345	Ogdensburg - Symco	2
5		5	6	1959	0320	Symco - Clintonville	2
6		5	8	1964	1700	Iola - 1 W Clintonville	2
7		7	2	1969	1600	Symco	0
8		7	14	1970	1230	Marion	1
9		12	1	1970	1030	4 NW Iola - Pella	2
10		6	14	1980	1230	5 NW Manawa - Manawa	1
11		4	27	1984	1455-1540	Union - Legend Lake	3
12		5	16	1992	1830	2.5 NE Northland	1
13		7	4	1994	1649	4 W Fremont	0
14		6	23	2004	1856-1906	9 W Waupaca - 2 SW Lind Center	2
15		6	10	2005	1510	2 W Clintonville	0
16		8	18	2005	1838-1841	4 SSW to 3.4 SW New London	0
17		4	10	2011	1806-1832	1 SW Saxeville - 1 SE Hortonville	1
18		8	6	2013	2322-2330	4 NNE Partridge - 0.8 S New London	1
19		8	6	2013	2324-2333	1.2 W New London - 0.4 WSW Greenville	2
20		7	6	2015	1538-1540	3.4 W Marion - 2.7 W Marion	1

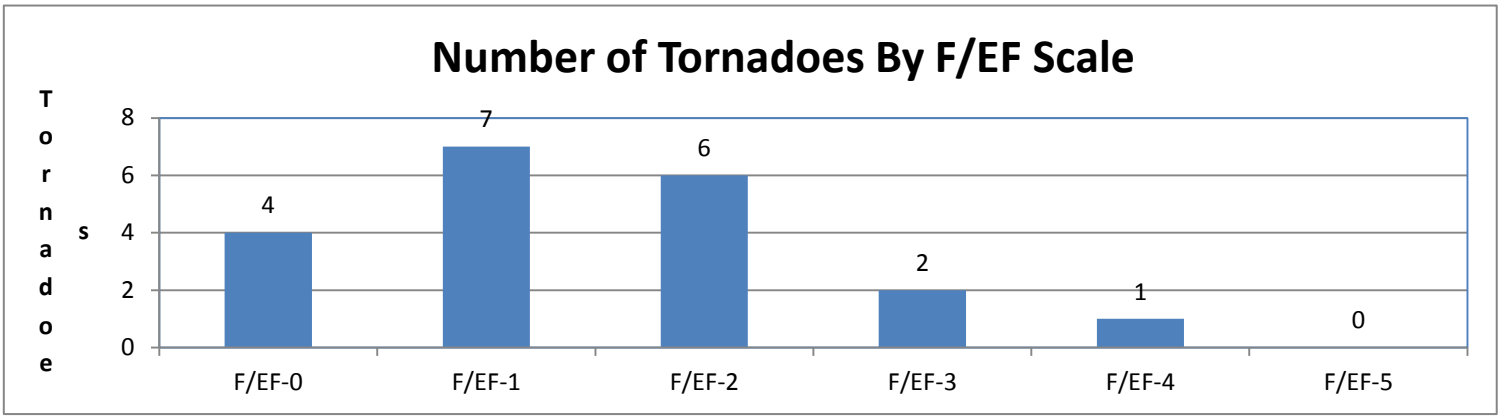
Additional tornado data can be found on the NWS Green Bay webpage at: http://www.weather.gov/grb/severeclimate

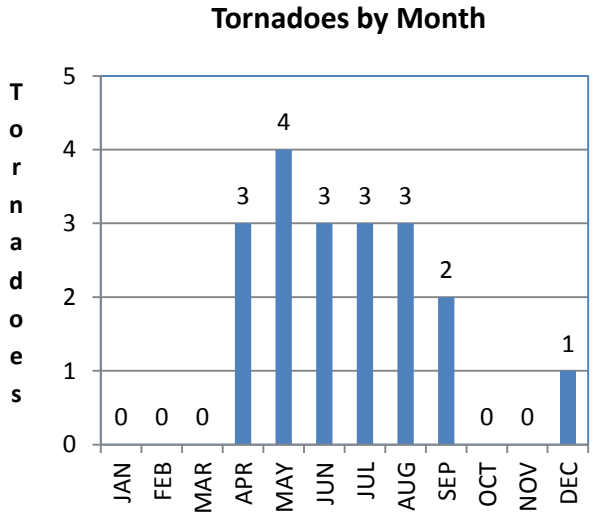
Waupaca County Severe Weather Facts (1950-2015)

Waupaca County Tornadoes

F/EF-2 or Greater Tornadoes in Waupaca County

		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		9	18	1950	1430	2 N Waupaca - Weyauwega	3
2		9	26	1951	1545-1608	9 SSW Amherst - Bear Creek	4
4		4	6	1956	1345	Ogdensburg - Symco	2
5		5	6	1959	0320	Symco - Clintonville	2
6		5	8	1964	1700	Iola - 1 W Clintonville	2
9		12	1	1970	1030	4 NW Iola - Pella	2
11		4	27	1984	1455-1540	Union - Legend Lake	3
14		6	23	2004	1856-1906	9 W Waupaca to 2 SW Lind Center	2
19		8	6	2013	2324-2333	1.2 W New London – 0.4 WSW Greenville	2





Tornadoes by Month

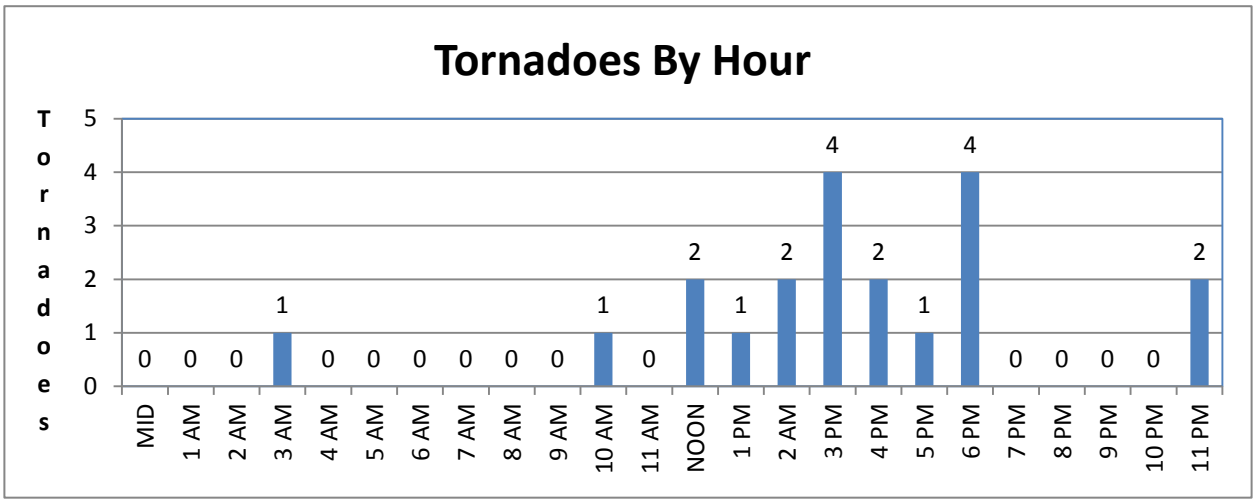
Documented tornadoes have occurred from April to September with a very rare event in December. The earliest documented tornado during the year occurred on April 6, 1951, a violent F/EF-4 tornado developed nine miles south southwest of Amherst which moved across central Waupaca County until it dissipated near Bear Creek in western Outagamie County. In 2011, the county experienced the 2nd earliest tornado to start the year on April 10th when an F/EF-1 clipped far southeast Waupaca County. The warm season months of May through September account for eighty percent of all tornadoes during the year. The latest tornado on record during the year occurred on December 1, 1970. On this date, an F/EF-2 tornado developed four miles northwest of Iola and moved to near Pella in Shawano County before dissipating.

Waupaca County Severe Weather Facts (1950-2015)

Waupaca County Tornadoes

Tornadoes by Hour

In Waupaca County, sixteen of the twenty (80%) documented tornadoes have occurred between noon and 7 pm local standard time. There have been no documented tornadoes between the 7 pm and 10 pm, midnight to 3 am, and from 4 am to 9 am local standard time. In 2013, Waupaca County recorded two tornadoes between 11 pm and midnight local standard time on August 6, 2013. Before this event, there were no documented tornadoes between 7 pm and 2 am local standard time.



Predominant Storm Reports – Wind and Hail Only

Between March and May, large hail is the dominant weather report. During the spring, the atmosphere is colder aloft to support large hail reaching the ground. Over the remainder of the convective season, the dominant reports (six out of ten) are strong wind gusts and wind damage. This is especially true between July and August when over 7 out of 10 reports are strong wind gusts and wind damage compared to large hail.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	33.3	66.7
Feb	0.0	0.0	Aug	23.7	76.3
Mar	75.0	25.0	Sep	53.8	46.2
Apr	61.5	38.5	Oct	0.0	0.0
May	51.4	48.6	Nov	0.0	0.0
Jun	35.7	64.3	Dec	0.0	0.0
			Year	38.6	61.4

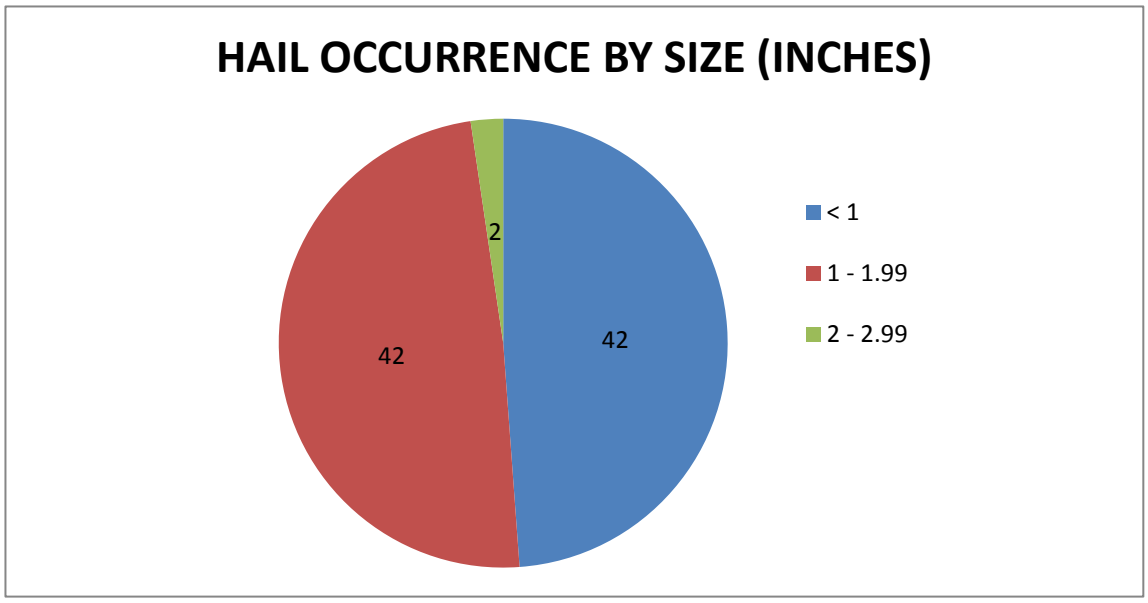
Waupaca County Severe Weather Facts (1950-2015)

Large Hail in Waupaca County

There have been only two documented report of hail two inches or greater in diameter across the county. The largest hail stone reported in the county was 2.75 inches in diameter which occurred one mile south of Manawa on August 18, 1972. Two inch hail was observed three miles northwest of Scandinavia on July 26, 2007. Overall, hail ranging in size from three quarters to one inch accounted for seventy-two percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for two percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		8	18	1972	1630	1 S Manawa	2.75
2		7	26	2007	1549	3 NW Scandinavia	2.00



Waupaca County Severe Weather Facts (1950-2015)

Waupaca County Summary

In Waupaca County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September.
Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring. Damaging winds or reports of strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Waupaca County ranks 6th in the total number of storm reports and tied for 11th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Waupaca County Severe Weather Facts (1950-2015)

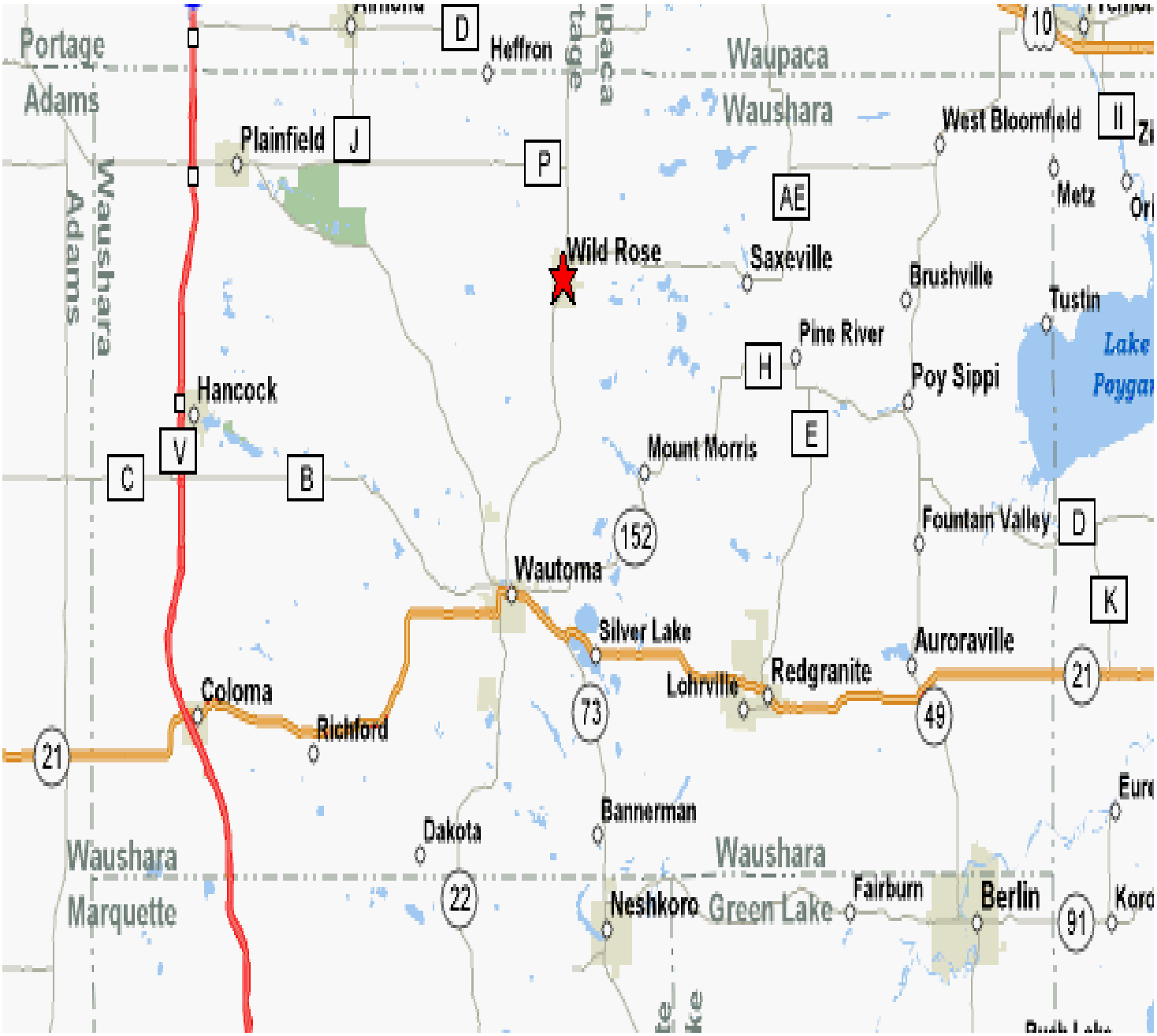
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

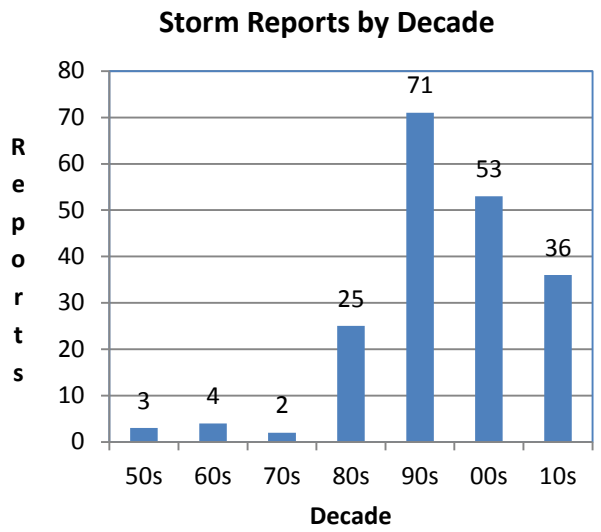
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Waushara County Severe Weather Facts (1950-2015)

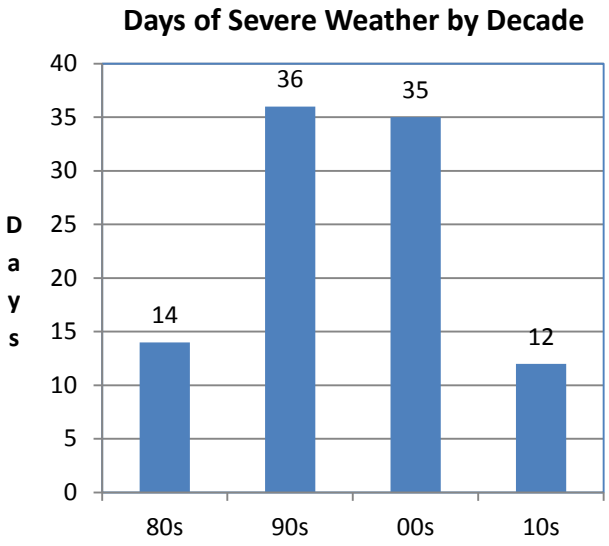


Waushara County Severe Weather Facts (1950-2015)



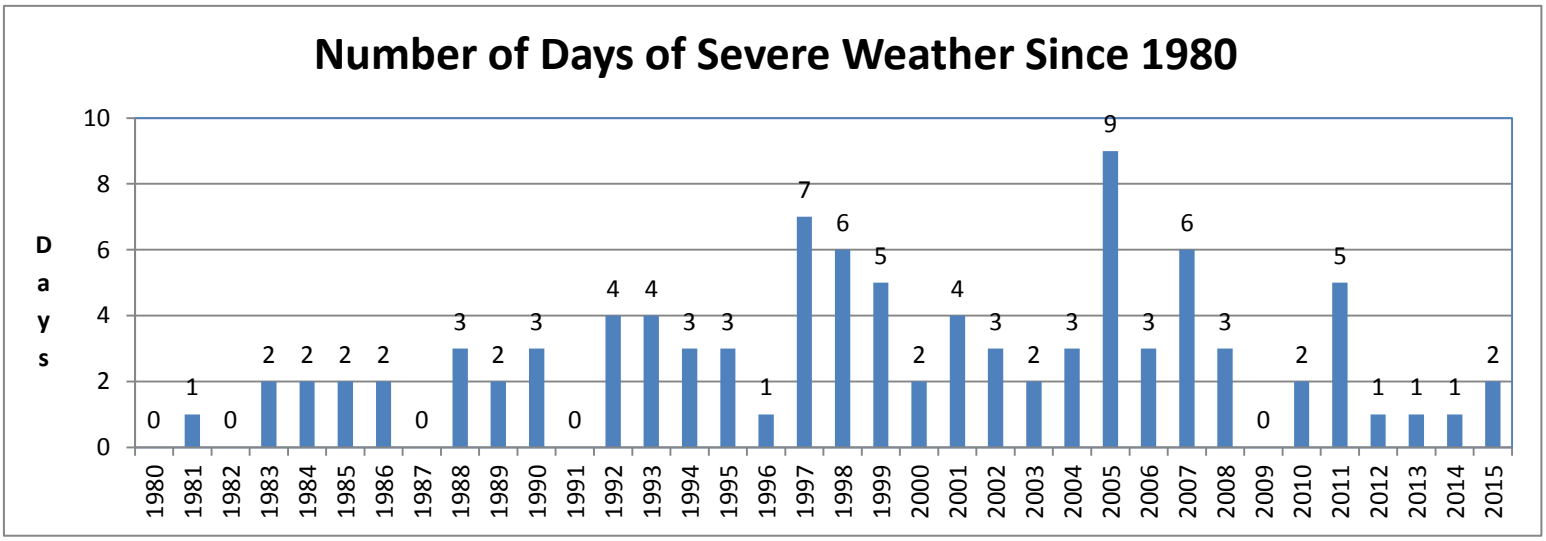
Storm Reports by Decade

Since 1950 there have been 194 documented reports of large hail, damaging winds and tornadoes across Waushara County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 112 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

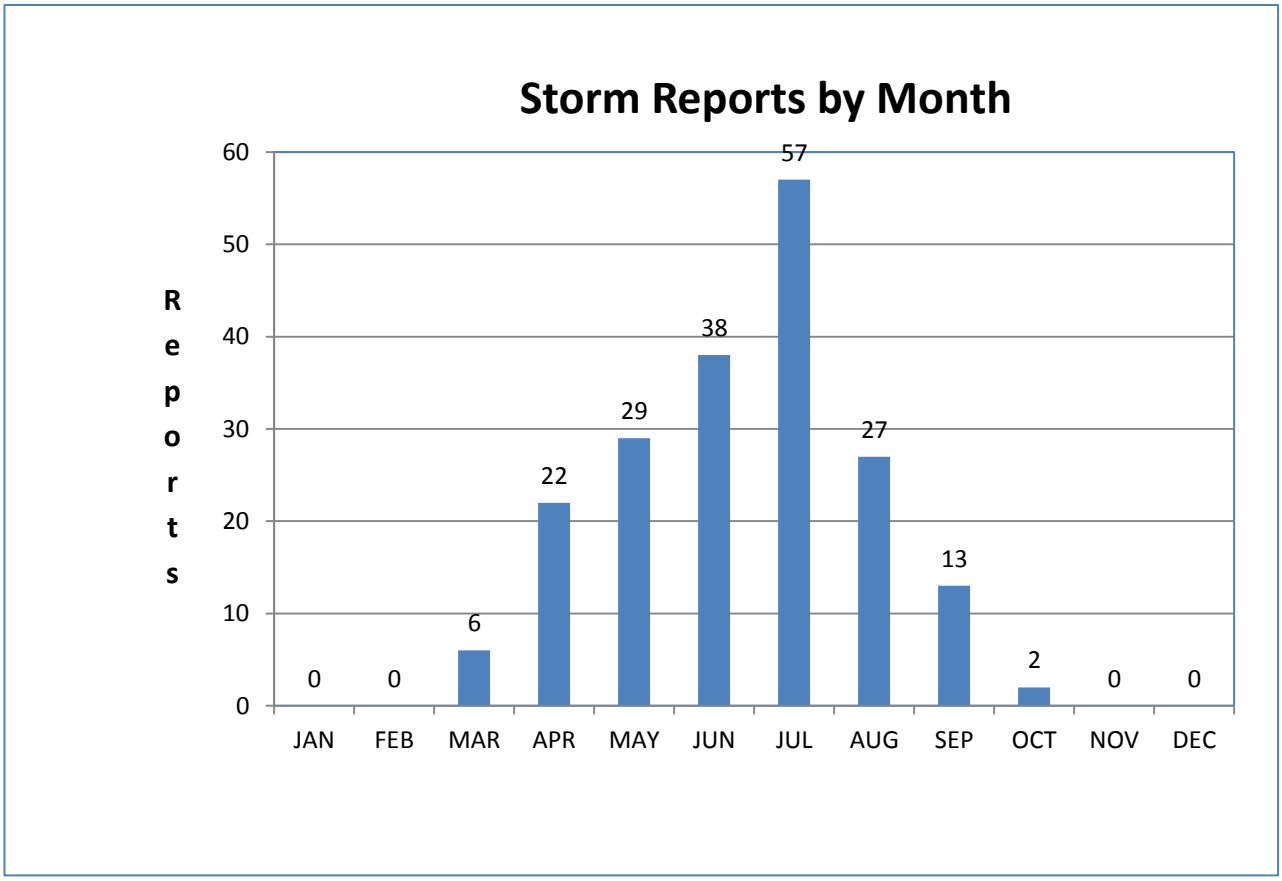
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 150 percent in the number of days of severe weather from the 1980s to the 2000s. The trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Waushara County averages two days of severe weather in a given year. The long term average from 1980-2015 is 2.7 days. The most active year was 2005 with nine days of severe weather; followed by seven days of severe weather in 1997, and six days in 1998 and 2007.



Waushara County Severe Weather Facts (1950-2015)

Storm Reports by Month

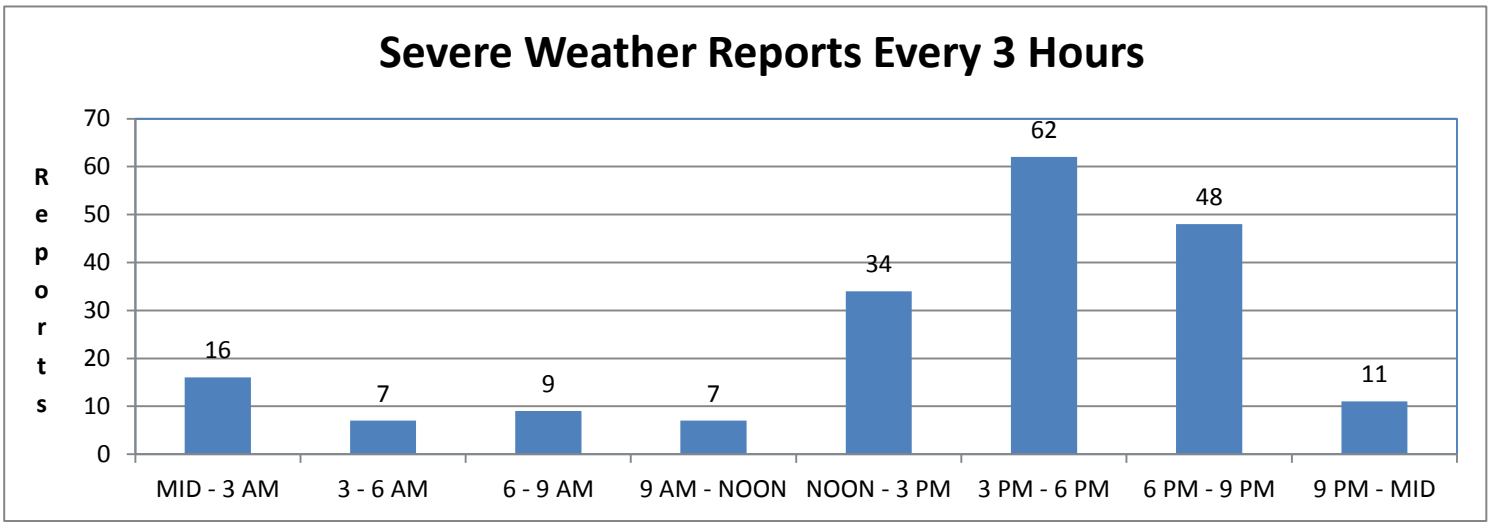
Severe weather has been recorded in Waushara County from March through October. Isolated reports of severe weather have been noted in March into April. The earliest documented report of severe weather during the year occurred on March 8, 2000. On this date, penny size hail was reported at Auroraville. The largest March outbreak occurred on March 29, 1998. On this date, there were six reports of penny to golf ball size across the county. The severe weather season begins in earnest in April, the peaks in July. The convective season wanes quickly by September. The warm season period of May through September accounts for eighty-five percent of all severe weather reports during the year. Severe weather can occur from time to time in September with isolated reports during October. The latest report of severe weather during the year occurred on October 8, 1992. On this date, an F/EF-1 tornado touched down five miles northeast of Wild Rose while penny size hail was reported in Hancock.

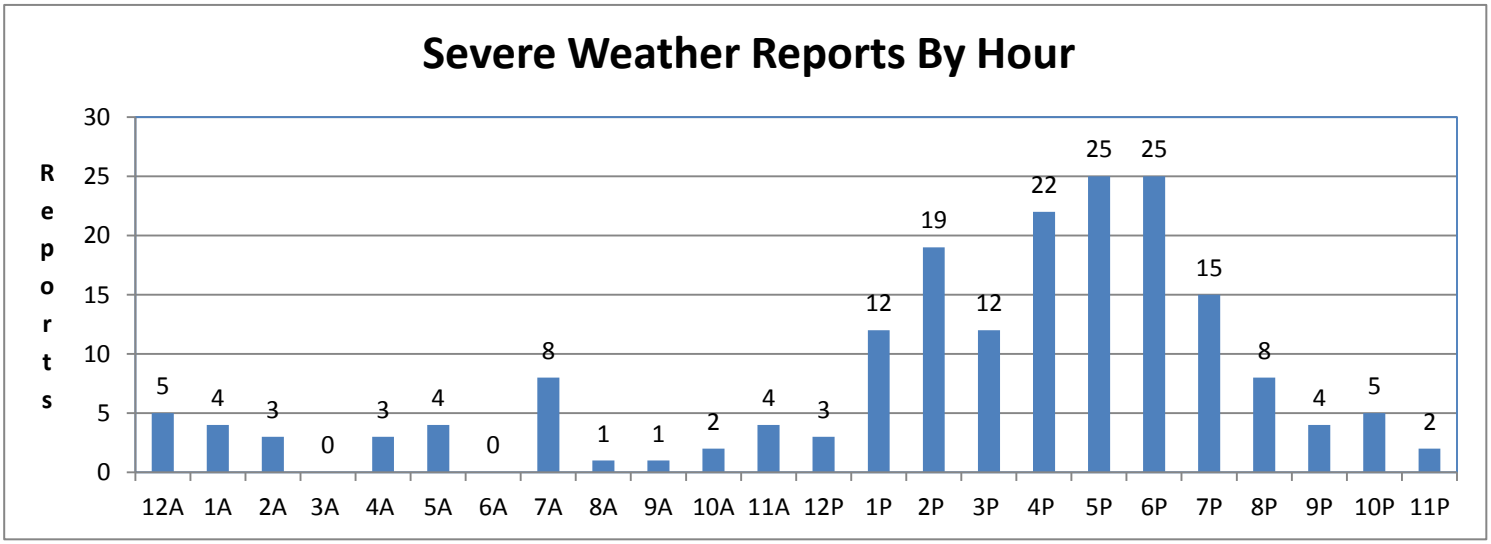


Waushara County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Waushara County. Seventy-three percent of all severe weather reports occur between 1 pm and 9 pm local standard time. Severe weather reports increased sharply after 1 pm with a peak in reports between 4 pm and 7 pm. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. There was another peak in the number of reports between midnight and 6 am between May and August. The overnight reports correspond to thunderstorms that develop across Minnesota and Dakotas and moves into the county after midnight.

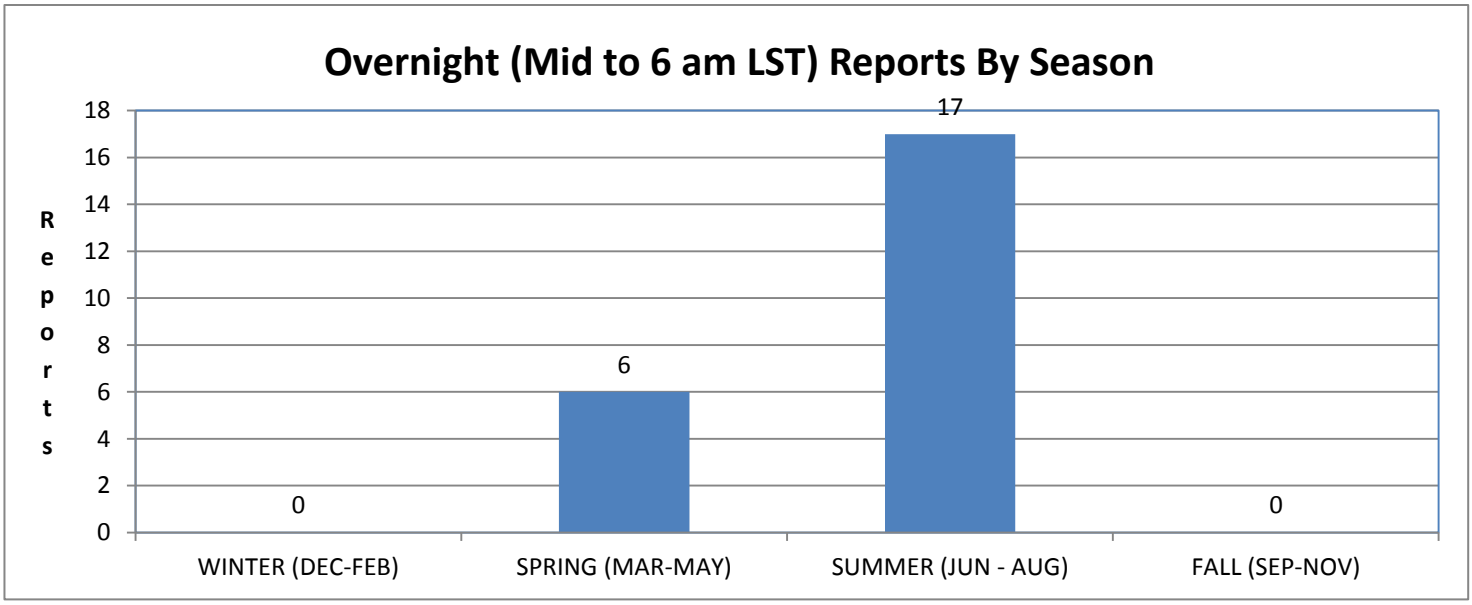




Waushara County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months account for 74 percent of all overnight reports during the year.



Waushara County Severe Weather Facts (1950-2015)

Waushara County Tornadoes

EVENT		DATE			TIME		F SCALE
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		4	15	1954	1500	2 NE Neshkoro - Redgranite	2
2		4	3	1956	1345-1353	Berlin - Rural Winnebago County	4
3		4	19	1957	1600-1615	Wautoma - Saxeville	2
4		7	10	1966	2200	Plainfield - Wautoma	1
5		5	18	1971	1640-1704	Adams-Friendship - Hancock	1
6		7	4	1985	1703-1717	1 N Redgranite - 1 SW Pine River	0
7		8	12	1985	1930-1945	1 N Richford	0
8		5	8	1988	1706-1712	2 SE Wautoma - 1 S Mount Morris	1
9		9	19	1988	1605	1 E Plainfield	0
10		8	29	1992	1910-1955	Wautoma – Poy Sippi	3
11		10	8	1992	1648	5 NE Wild Rose	1
12		6	8	1993	1838-1855	2.5 S Spring Lake - 2 W Auroraville	0
13		6	8	1993	1915-1935	0.5 E Dakota - 2 S Redgranite	0
14		6	8	1993	1935-1945	5 SE Redgranite - 3 SE Auroraville	0
15		8	27	1994	2107	Hancock	1
16		7	16	1997	1641-1642	Hancock	0
17		6	16	1998	1500	3 WNW Coloma	0
18		6	4	2005	1354	1 E - 1.1 ENE Auroraville	0
19		6	4	2005	1405	2 NW Borth	0
20		8	18	2005	1732-1736	6 WSW - 3.7 SW Wautoma	0
21		4	10	2011	1735-1742	2 NW Coloma Airport – 4 ESE Hancock	1
22		4	10	2011	1806-1832	1/1 SW Saxeville – 1 SE Hortonville	1
23		4	10	2011	1853-1904	0.3 NW Poy Sippi – 2.3 WSW Winchester	1

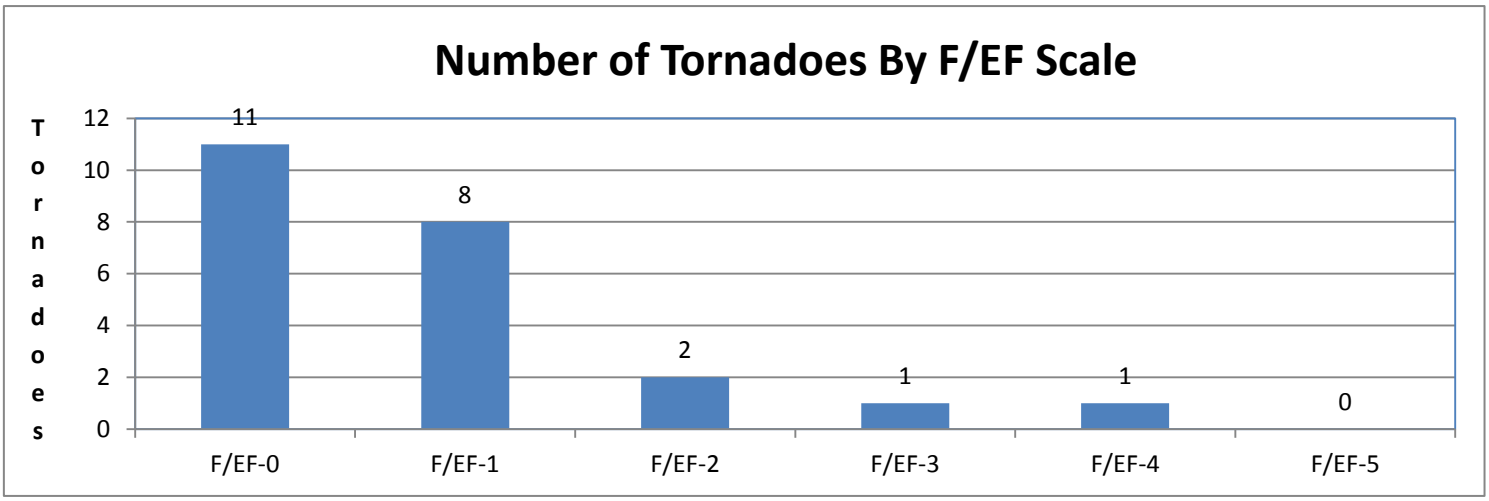
Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

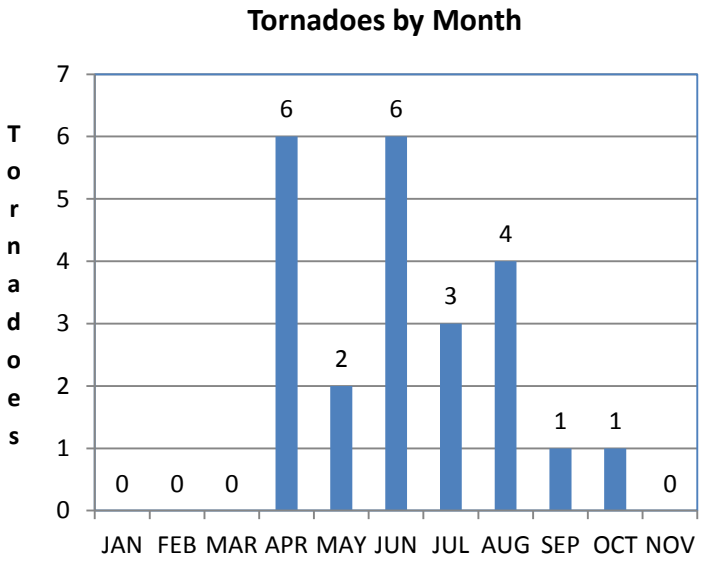
F2 or Greater Tornadoes in Waushara County

EVENT		DATE			TIME		F SCALE
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		4	15	1954	1500	2 NE Neshkoro - Redgranite	2
2		4	3	1956	1345-1353	Berlin - Rural Winnebago County	4
3		4	19	1957	1600-1615	Wautoma - Saxeville	2
10		8	29	1992	1910-1955	Wautoma - Poysippi	3

Waushara County Severe Weather Facts (1950-2015)

Since record keeping began in 1950, there have been twenty-three documented tornadoes across the county. Of the twenty-three tornadoes, two tornadoes were rated an F/EF-3 or greater intensity. The strongest tornado was an F/EF-4 tornado which touched down near Berlin and moved across far southeast Waushara County before dissipating near Omro in Winnebago County. An F/EF-3 killer tornado touched down near Wautoma and moved to Poy Sippi. The tornado travelled twenty-eight miles and at one point was 800 yards wide. The tornado caused one death and injured thirty people. The hardest hit area was just south of Wautoma where a woman was killed. Forty-eight homes were destroyed and ninety-five other homes sustained major damage. Two tornadoes were rated F/EF-2 and nineteen tornadoes were rated F/EF-0 or F/EF-1. The most active years were 1993, 2005 and 2011 with three tornadoes. On April 10th, 2011, three tornadoes struck the county between 6:30 pm and 7:30 pm. The three tornadoes on this date tied the record for most tornadoes on any single date. The previous record was three tornadoes on June 8, 1993. Two tornadoes were reported in 1985, 1988 and 1992. A tornado was reported in three consecutive years from 1992 to 1994. Since 1950, tornadoes have touched down in fourteen different years. A tornado strike in Waushara County occurs on average about every three years.





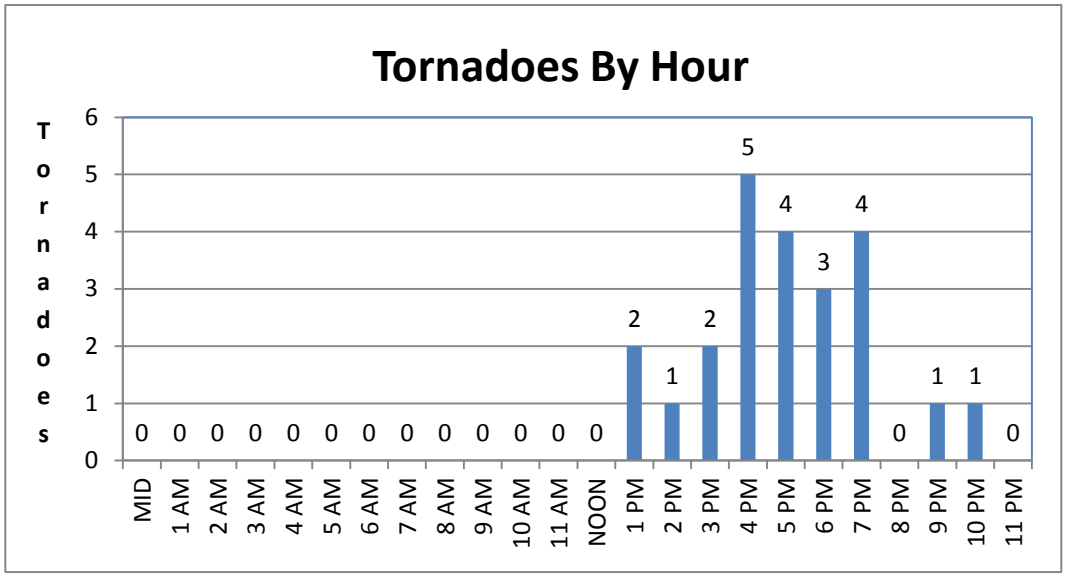
Tornadoes by Month

Documented tornadoes have occurred from April to October. The earliest documented tornado during the year occurred on April 3, 1956. On this date, a violent F/EF-4 tornado developed near Berlin, then clipped the far southeast portion of the county before dissipating near Omro in Winnebago County. The summer months of June, July and August accounted for thirteen of the twenty-three (57%) tornado reports. The warm season months of May through September account for seventy percent of all tornadoes during the year. The latest tornado on record during the year occurred on October 8, 1992. On this date, an F/EF-1 tornado touched down five miles northeast of Wild Rose.

Waushara County Severe Weather Facts (1950-2015)

Tornadoes by Hour

In Waushara County, twenty-one of the twenty-three (ninety-one percent) documented tornadoes have occurred between 1 pm and 11 pm local standard time. There have been no documented tornadoes between the 11 pm and 1 pm local standard time.



Predominant Storm Reports – Wind and Hail Only

In March, April and October, large hail is the dominant weather event reported to the National Weather Service. During these months, the atmosphere is colder aloft to support large hail. Over the remainder of the convective season, the dominant reports are strong wind gusts and wind damage. During the late spring into early fall, a warmer and moist atmosphere is more conducive for severe storms to produce damaging winds or strong winds gusts compared to large hail. Over the course of the year, nearly six out of ten reports are strong wind gusts and wind damage compared to large hail reports

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	25.9	74.1
Feb	0.0	0.0	Aug	34.8	65.2
Mar	100.0	0.0	Sep	33.3	66.7
Apr	56.3	43.7	Oct	100.0	0.0
May	48.1	51.9	Nov	0.0	0.0
Jun	46.9	53.1	Dec	0.0	0.0
			Year	40.9	59.1

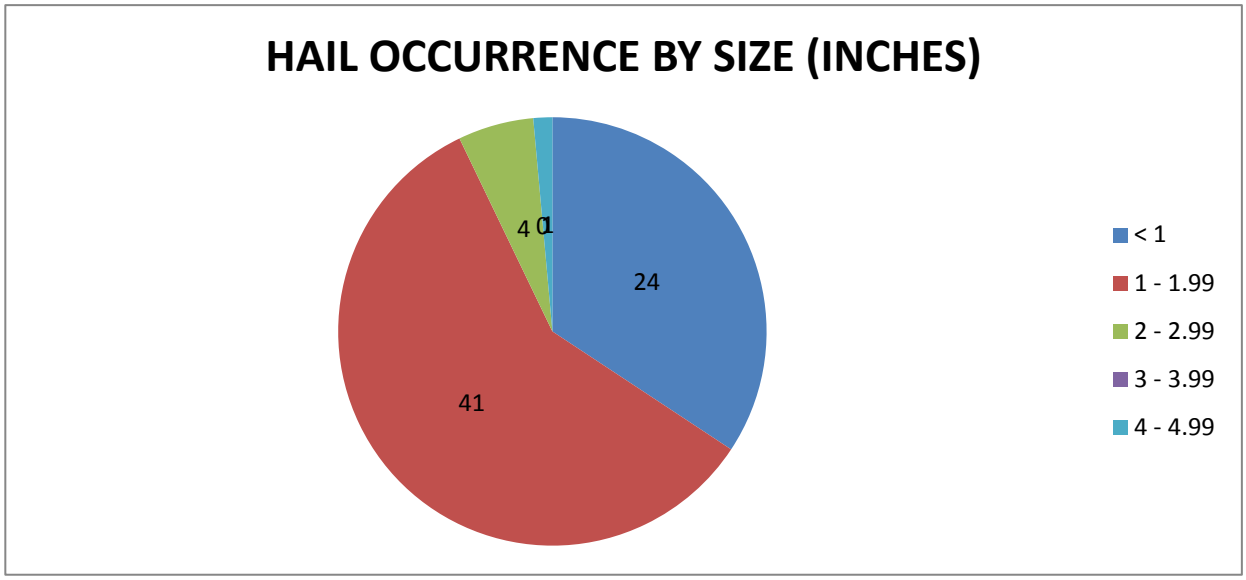
Waushara County Severe Weather Facts (1950-2015)

Large Hail in Waushara County

There have been five documented reports of hail two inches or greater in diameter across the county. The largest hail stone reported in the county was 4.25 inches which occurred from a half mile east of Redgranite on May 22, 2011. The last report of hail two inches or greater occurred on May 22, 2011 two miles southwest of Poy Sippi. Overall, hail ranging in size from three quarters to one inch accounted for fifty-six percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for seven percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		5	7	1964	1730	9 SE Red Granite	2.00
2		5	12	2000	0925	1 W Coloma to Red Granite	2.75
3		7	17	2006	1616	Poy Sippi	2.00
4		5	22	2011	1435	0.5 E Redgranite	4.25
5		5	22	2011	1445	2 SW Poy Sippi	2.00



Waushara County Severe Weather Facts (1950-2015)

Waushara County Summary

In Waushara County, the severe weather season begins in earnest in May, peaks in July and then wanes quickly by September.
Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring and later in the fall. Damaging winds or reports of strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Waushara County ranks 14th in the total number of storm reports and tied for 6th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

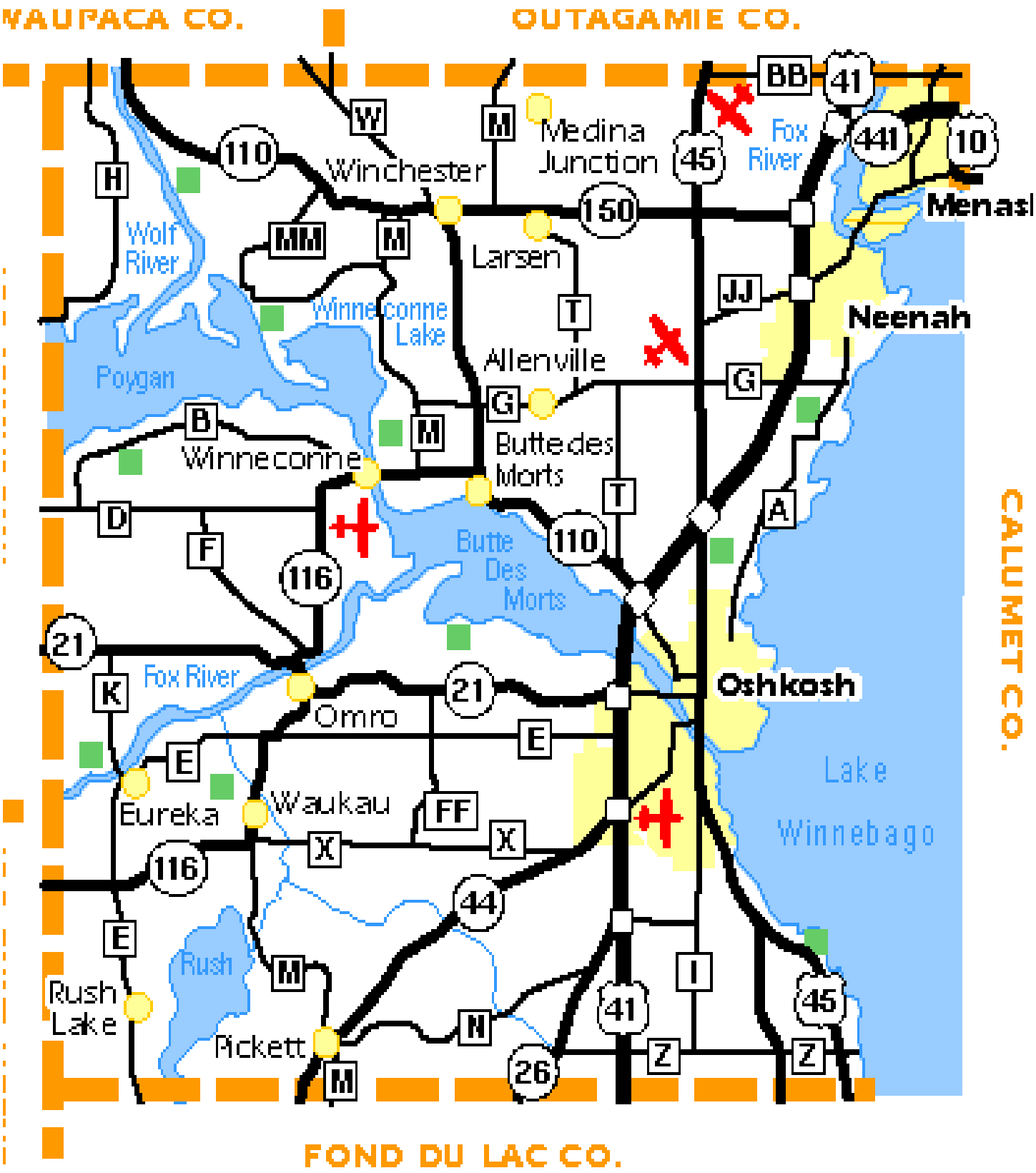
Waushara County Severe Weather Facts (1950-2015)

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

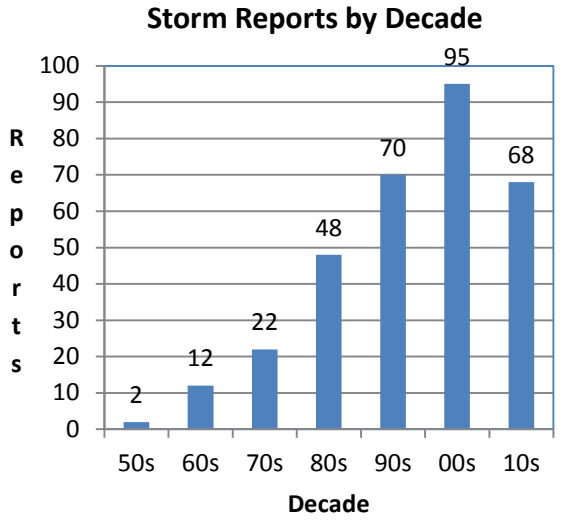
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Winnebago County Severe Weather Facts (1950-2015)

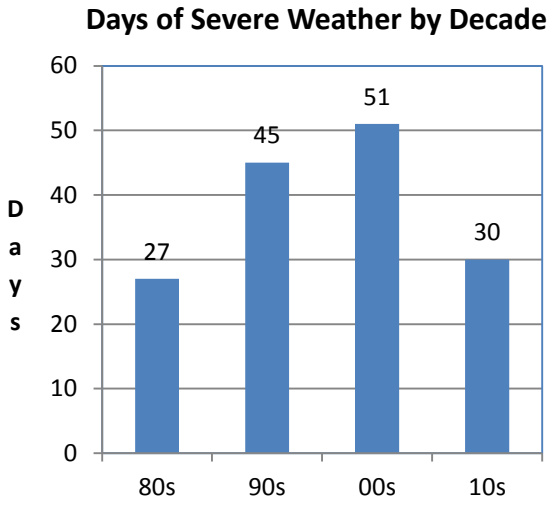


Winnebago County Severe Weather Facts (1950-2015)



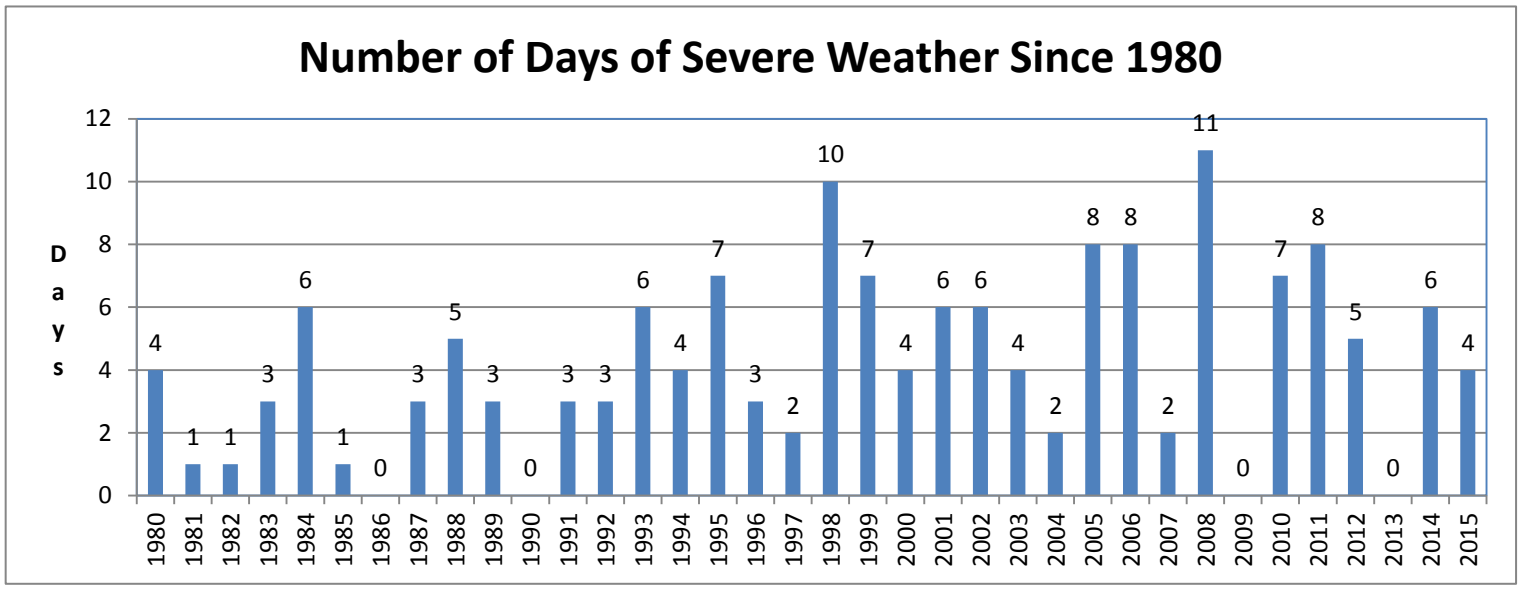
Storm Reports by Decade

Since 1950 there have been 317 reports of large hail, damaging winds and tornadoes across Winnebago County. The population boom of the 1980s and 1990s combined with the SKYWARN program led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 98 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

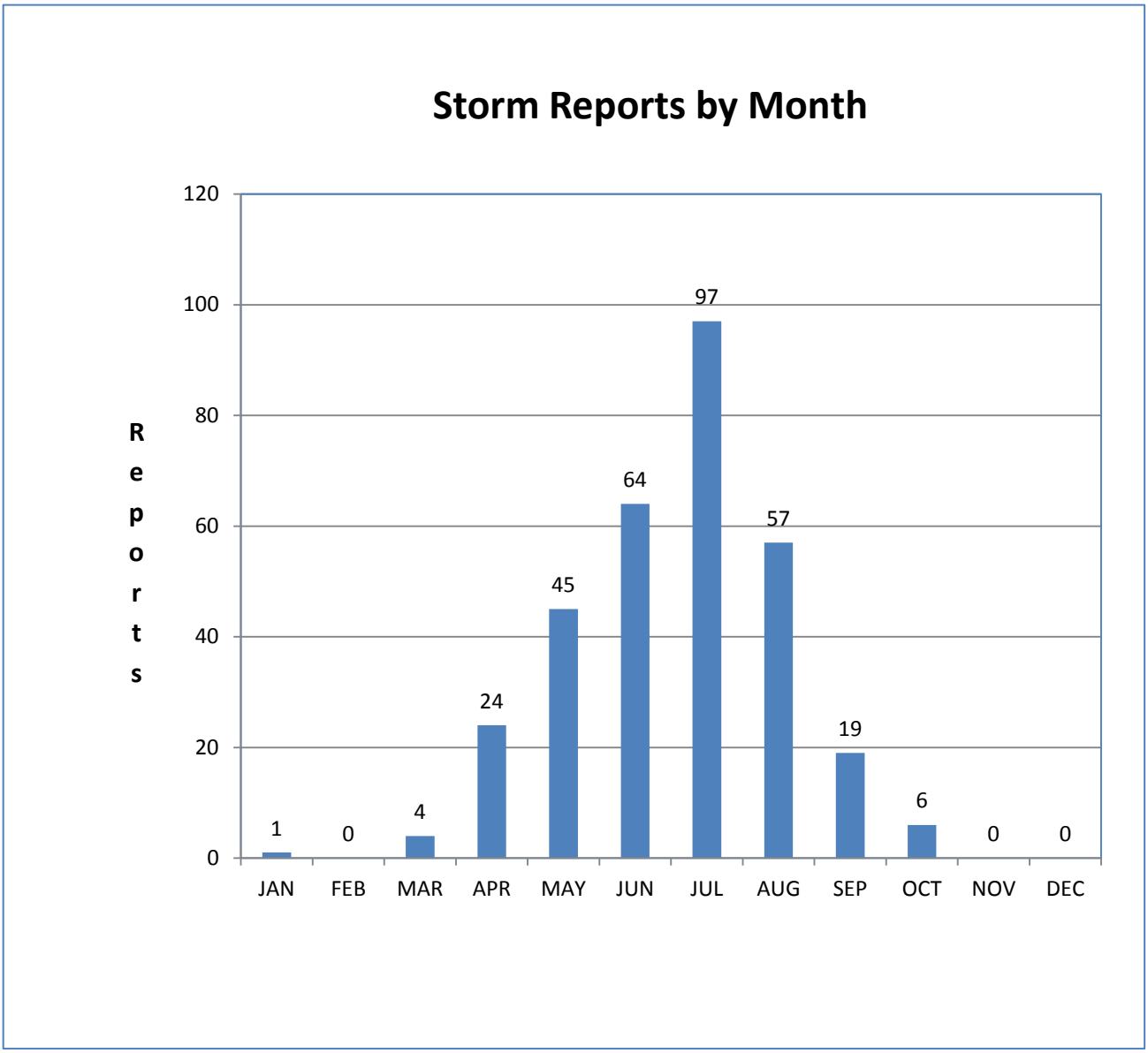
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 89 percent in the number of days of severe weather from the 1980s to the 2000sThis trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Winnebago County averages five days of severe weather in a given year. The long term average from 1980-2015 is 4.3 days. The most active year was 2008 with eleven days of severe weather; followed by ten days in 1998 and eight days in 2005, 2006 and 2011. Since 1980, no severe weather was reported during the year in 1986, 1990, 2009 and 2013.



Winnebago County Severe Weather Facts (1950-2015)

Storm Reports by Month

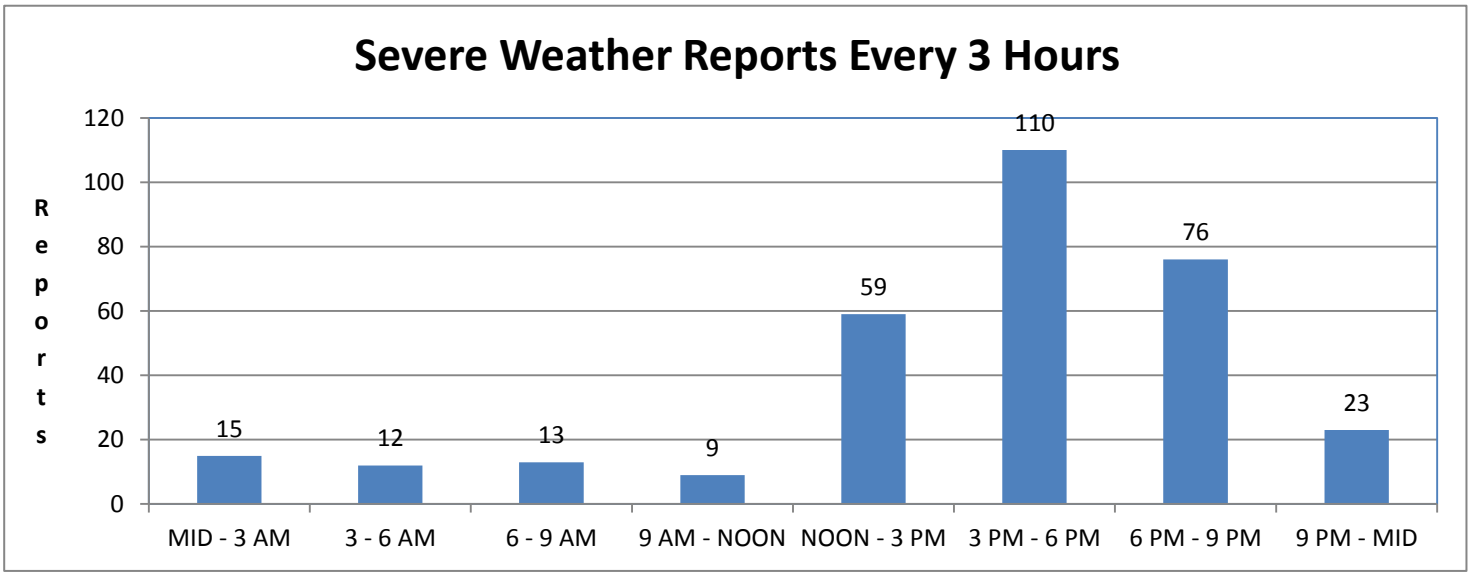
Severe weather has been documented in Winnebago County in every month except February, November and December. Surprisingly, there has been one report of severe weather during the month of January. On January 24, 1967, a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. On a rare occasion, severe weather breaks out during the month of March. The severe weather season begins in earnest in April, with the heart of the convective season between May and August. July is the peak month for the number of reports. The warm season period of May through September accounts for eighty-nine percent of all severe weather reports during the year. Severe weather can occur from time to time in September with isolated reports during October. The latest report of severe weather during the year occurred on October 23, 2004. On this date, large hail or damaging winds were reported from near Winneconne and Omro to Oshkosh.

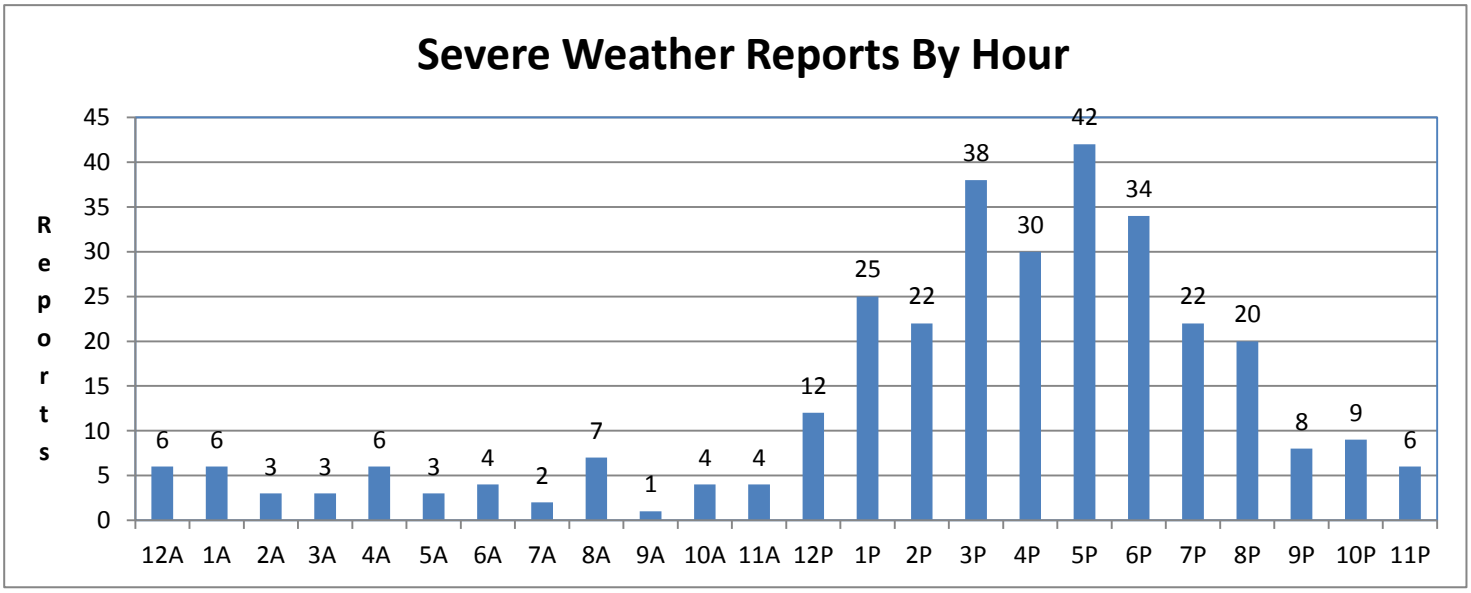


Winnebago County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Winnebago County. Seventy-four percent of all severe weather reports occur between 1 pm and 9 pm local standard time. Severe weather reports increased sharply after 12 pm with a peak in storm reports between 3 pm and 7 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. There was another peak in the number of reports between midnight and 6 am between May and August. The overnight reports correspond to convection that develops across Minnesota and Dakotas and moves into the county after midnight.

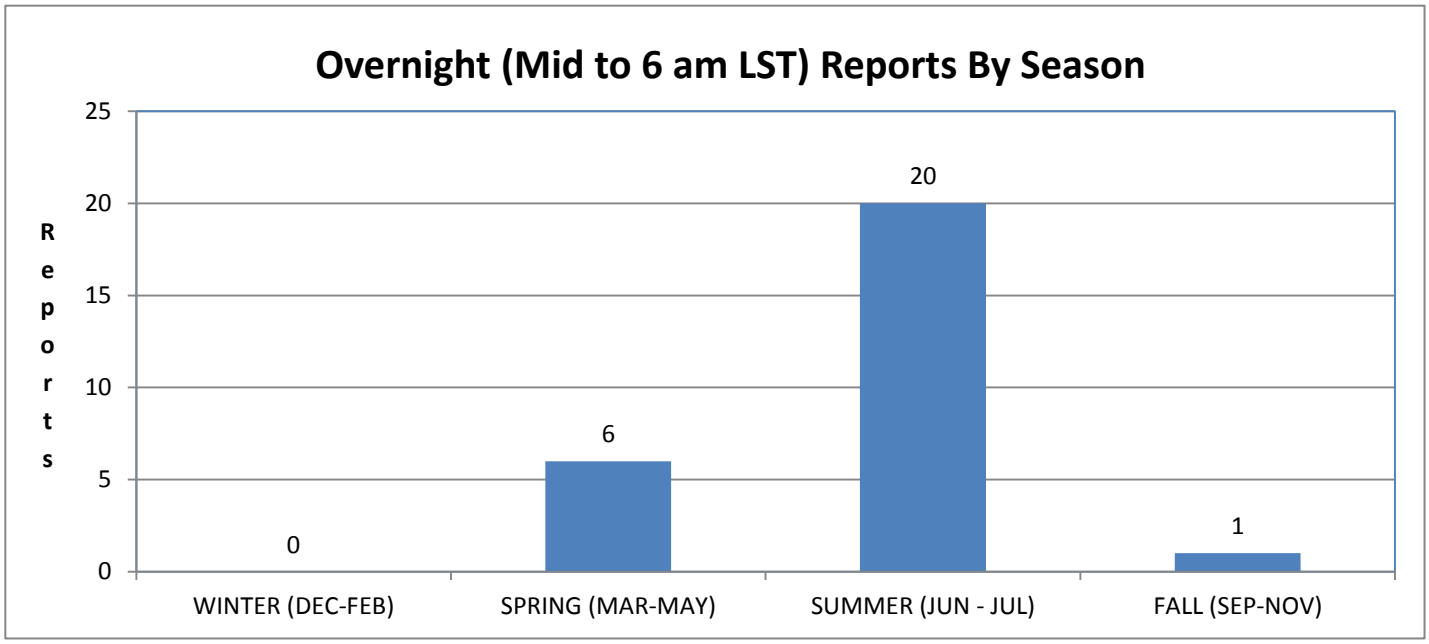




Winnebago County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the summer (June through August) due to nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through northeast Wisconsin during the early morning hours. The summer months of June through August account for seventy-four percent of all overnight severe weather reports during the year.



Winnebago County Severe Weather Facts (1950-2015)

Winnebago County Tornadoes

Since record keeping began in 1950, there have been thirty-three documented tornadoes or waterspouts (Lake Winnebago) across the county. Of the thirty-three tornadoes, three tornadoes were rated an F/EF-3 or greater intensity. Three F/EF-4 tornadoes have hit the county. The last F/EF-4 tornado occurred on April 27, 1984 when a tornado developed one mile northeast of Winneconne and travelled to near Freedom before dissipating. There have been zero F/EF-3 tornadoes, one F/EF-2 tornadoes, ten F/EF-1 tornadoes and nineteen F/EF-0 tornadoes. The most active year was 2005 when a total of seven tornadoes and waterspouts were reported. Three tornadoes and waterspouts were reported in 1971 while there were two tornadoes and/or waterspouts in 1984, 2002, 2003, 2010 and 2014. A tornado was reported in consecutive years in 2002 and 2003 and again in 2010 and 2011. Since 1950, tornadoes or waterspouts have touched down in twenty. A tornado or waterspout strike in Winnebago County usually occurs every two years.

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		4	3	1956	1345-1353	8 SW Eureka to 2 W Omro	4
2		5	28	1959	1515	6 N to 9 NE Oshkosh	1
3		5	21	1960	1730	15 W Oshkosh	1
4		5	8	1964	1830-1906	Winneconne-Wrightstown	2
5		6	6	1971	2315	5 SW Oshkosh	1
6		6	13	1971	1630	8 NW Oshkosh	1
7		7	30	1971	0700	4 E Oshkosh (waterspout)	0
8		4	21	1974	1440-1450	5 S Ripon - Oshkosh	4
9		6	20	1979	1345	3 S Oshkosh	1
10		4	27	1984	1520-1540	1 NE Winneconne - Freedom	4
11		7	26	1984	1300-1310	5 E Oshkosh (waterspout)	0
12		8	14	1987	1740-1743	1 W Menasha	1
13		5	24	1989	2010-2015	3 S Oshkosh	1
14		6	8	1993	1735	1 E Pickett	0
15		7	18	1996	1745	5 NE Oshkosh (waterspout)	0
16		8	23	1998	1522	Menasha	0
17		5	6	2002	1630-1640	5 NW - 2.5 N Winneconne	0
18		5	6	2002	1702	8 N Oshkosh - Wittman Field	0
19		6	8	2003	1140	4 W Oshkosh - Wittman Field	0
20		6	8	2003	1220-1226	5 E - 5.5 ESE Oshkosh Wittman Field	0
21		5	6	2005	1524-1525	7 ESE - 7.8 ESE Oshkosh - Wittman Field	0
22		6	9	2005	1740-1750	5 SE - 5 E Oshkosh	0
23		6	10	2005	1505	1 N Winneconne	0
24		6	10	2005	1910	4 ESE Oshkosh	0
25		6	10	2005	1922	3 E Oshkosh	0
26		6	10	2005	1948	3 E Oshkosh	0
27		8	18	2005	1840-1848	4.5 W - 2.6 NW Neenah	0
28		7	19	2008	2144-2145	3.8 WNW to 3.4 WNW Menasha	1
29		5	4	2010	1810-1812	2.7 SE Zittau – 2.7 W Winchester	1
30		5	4	2010	1813-1817	2.2 SSW Winchester – 0.8 NNW Larsen	0

Winnebago County Severe Weather Facts (1950-2015)

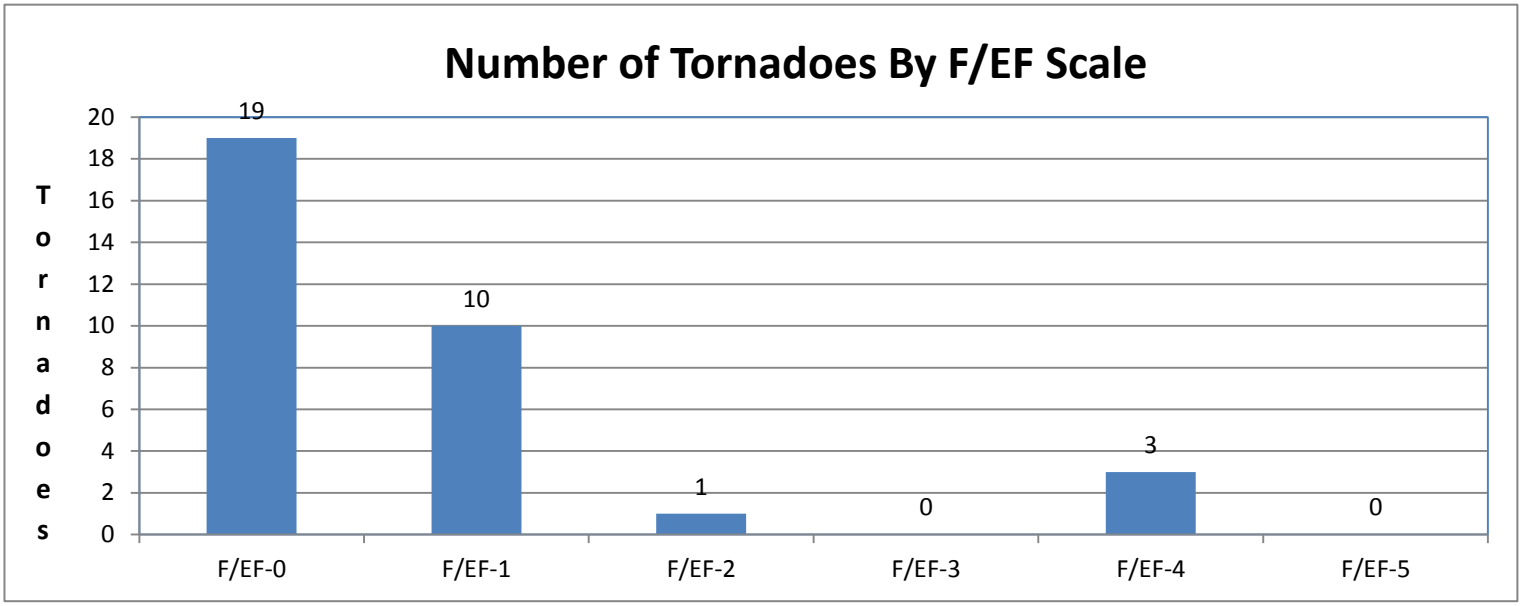
Winnebago County Tornadoes Continued

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
31		4	10	2011	1853-1904	0.3 NW Poy Sippi - 2.3 WSW Winchester	1
32		7	27	2014	1805	3.5 SE Oshkosh Wittman Field (waterspout)	0
33		8	18	2014	1523-1525	3.3 NE Winchester - 4.0 NNE Larsen	0

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

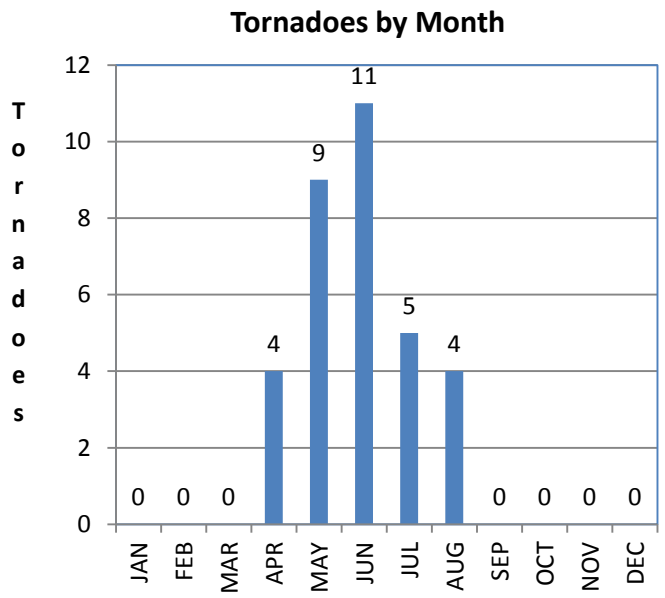
F/EF-2 or Greater Tornadoes in Winnebago County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		4	3	1956	1345-1353	8 SW Eureka to 2 W Omro	4
4		5	8	1964	1830-1906	Winneconne-Wrightstown	2
8		4	21	1974	1440-1450	5 S Ripon - Oshkosh	4
10		4	27	1984	1520-1540	1 NE Winneconne - Freedom	4



Winnebago County Severe Weather Facts (1950-2015)

Winnebago County Tornadoes

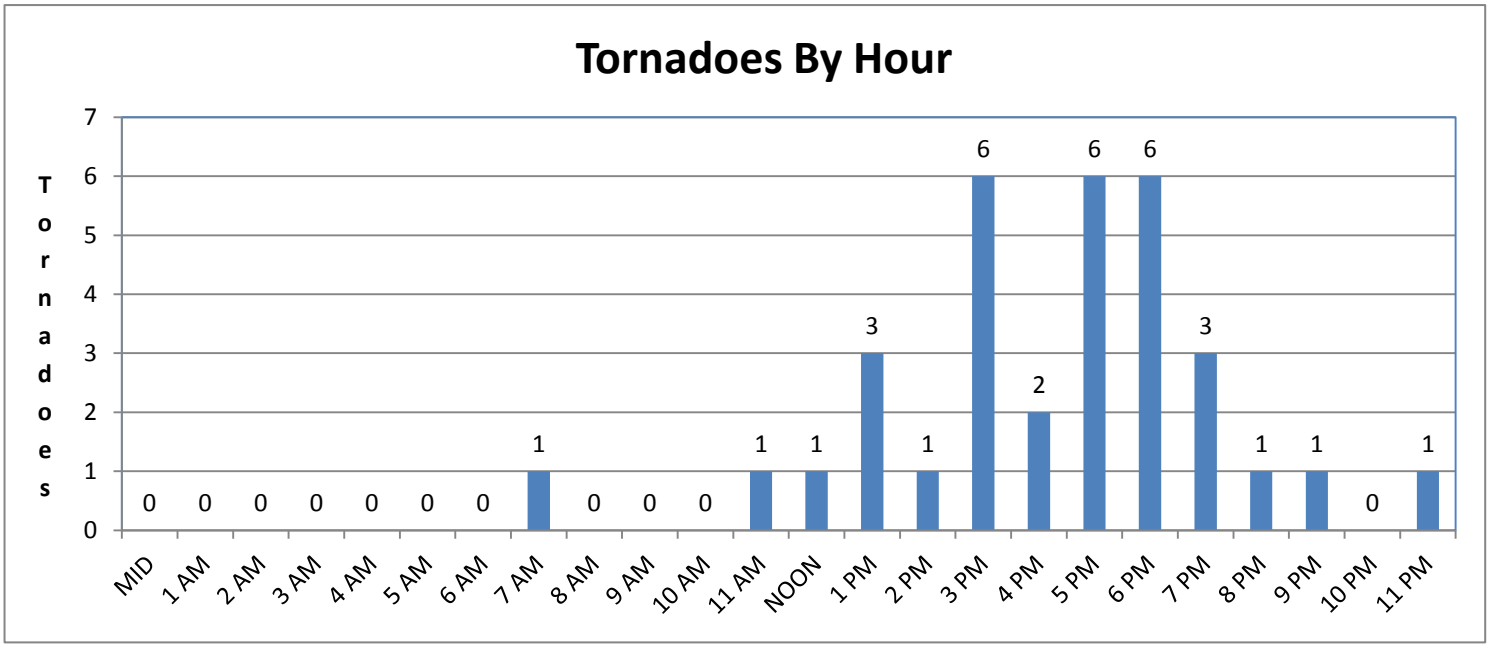


Tornadoes by Month

Documented tornadoes have occurred from April to August. The earliest documented tornado during the year occurred on April 3, 1956. On this date, a violent F/EF-4 tornado developed eight miles southwest of Eureka and moved to two miles west of Omro before dissipating. The height of the tornado season occurs in May and June which accounts for sixty-one percent of all tornado reports. The tornado season peaks in June and quickly wanes by August. The warm season months of May through August account for eighty-eight percent of all tornado reports during the year. The latest documented tornado on record during the year occurred on August 23, 1998. On this date, an F/EF-0 tornado touched down in Menasha. In 2014, a brief tornado touched down on August 18th from 3.3 miles northeast of Winchester to four miles north-northeast of Larsen.

Tornadoes by Hour

In Winnebago County, thirty of the thirty-three (91%) documented tornadoes have occurred between noon and 10 pm local standard time. There have been no documented tornadoes between midnight and 6 am and from 8 am to 10 am local standard time. The lone report before noon occurred on July 30, 1971 when a waterspout was reported east of Oshkosh at 7 am.



Winnebago County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During the spring (March through May) into June, and during October, large hail is the dominant weather event reported to the National Weather Service. During these months, the upper atmosphere is cold enough to support large hail. Over the remainder of the convective season, the dominant reports are strong wind gusts and wind damage. Over the course of the year, fifty-five percent of all reports are strong wind gusts and wind damage compared to forty-five percent for large hail reports.

Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	31.5	68.5
Feb	0.0	0.0	Aug	41.5	58.5
Mar	100.0	0.0	Sep	31.6	68.4
Apr	65.0	35.0	Oct	66.7	33.3
May	63.9	36.1	Nov	0.0	0.0
Jun	52.8	47.2	Dec	0.0	0.0
			Year	45.4	54.6

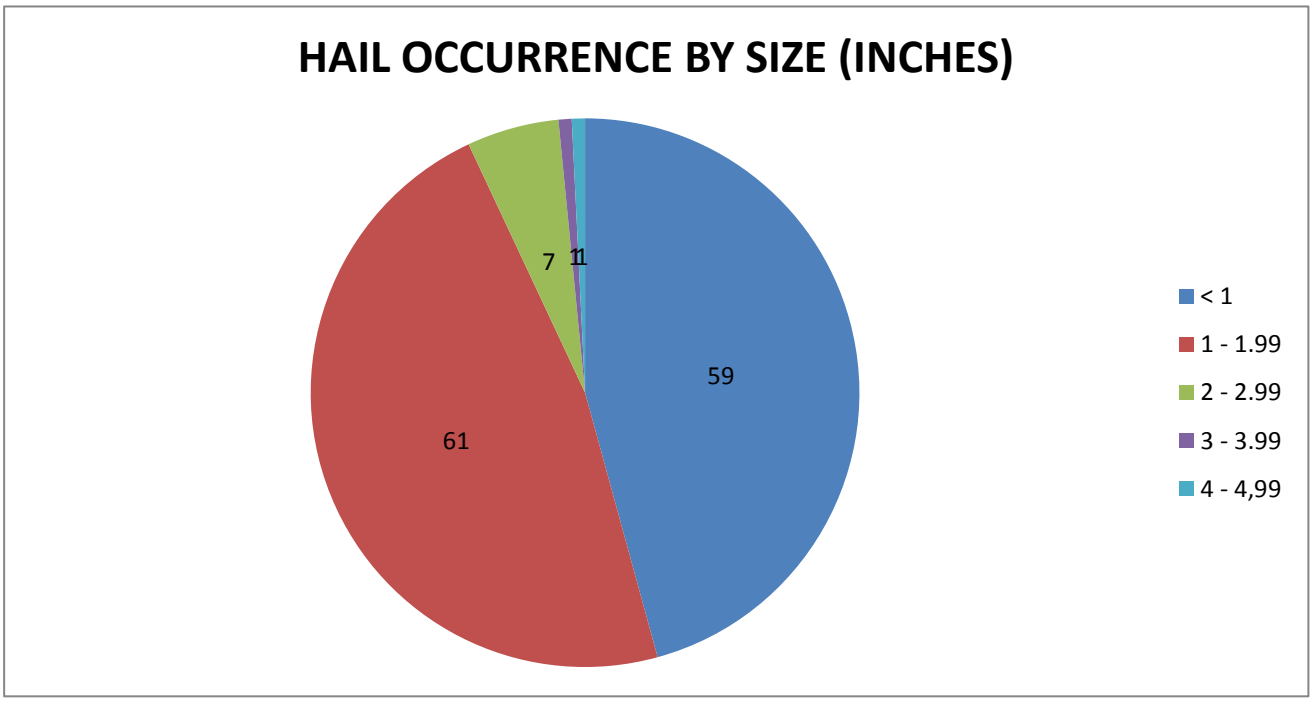
Winnebago County Severe Weather Facts (1950-2015)

Large Hail in Winnebago County

There have been nine documented reports of hail two inches or greater in diameter across the county. The largest hail stone reported in the county was 4.25 inches in diameter which occurred nearly one mile northwest of Winchester on May 22, 2011. The last hail stone of two inches or greater occurred on June 18, 2012 when 2.25 inch hail was reported three miles east of Winchester. Overall, hail ranging in size from three quarters to one inch accounted for seventy-two percent of the documented large hail reports. Hail reports of two inches or greater only accounted for seven percent of the total large hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		8	29	1984	1720	5 NE Omro	2.75
2		8	29	1984	1812	Winchester	2.75
3		7	27	1989	1050	1 N Oshkosh	3.00
4		3	29	1998	1149	Winchester	2.00
5		8	23	1998	1529	Appleton	2.00
6		5	12	2000	1005	Omro to Oshkosh	2.00
7		4	10	2011	1911	1 E Lake Winneconne	2.75
8		5	22	2011	1505	0.8 NW Winchester	4.25
9		6	18	2012	1700	3 E Winchester	2.25



Winnebago County Severe Weather Facts (1950-2015)

Winnebago County Summary

In Winnebago County, the severe weather season begins in earnest in April, peaks in July and then wanes quickly by September.
Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail in the spring and later in the fall. Damaging winds or reports of strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Winnebago County ranks 2nd in the total number of storm reports and 2nd in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

Tornadoes have occurred from March through December, with an extremely rare tornado outbreak occurring on December 1, 1970. On this date four tornadoes were reported across central and northeast Wisconsin during the morning. A strong area of low pressure brought unseasonably mild temperatures and severe thunderstorms to portions of central and northeast Wisconsin as a cold front swept across the state. The first tornado was reported twelve miles southeast of Marshfield in Wood County around 7 am while another tornado was reported in the town of Hull in Portage County around 9 am. Later that morning, an F/EF-2 tornado was reported in Waupaca and Shawano counties, from four miles southwest of Iola to near Marion and Pella. The last and strongest tornado occurred around 945 am. The F/EF-3 tornado travelled from Medina in southwest Outagamie County to far southeast Shawano County, destroying about 20 barns and five homes.

Here are the strongest documented tornadoes in the Green Bay forecast area which covers 22 counties in central, north-central and northeast Wisconsin.

F/EF-4 Tornadoes

EVENT	DATE			TIME		TOR IN GRB SERVICE AREA
#	MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	COUNTY OR COUNTIES
1	6	25	1950	2100	1 W Woodboro - 5 NE Rhinelander	Oneida
2	9	26	1951	1545-1608	9 SSW Amherst - 2 SW Bear Creek	Portage-Waupaca
3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
7	7	5	1994	1543-1555	2.5 NW Maribel - 0.5 W Cooperstown	Manitowoc

Winnebago County Severe Weather Facts (1950-2015)

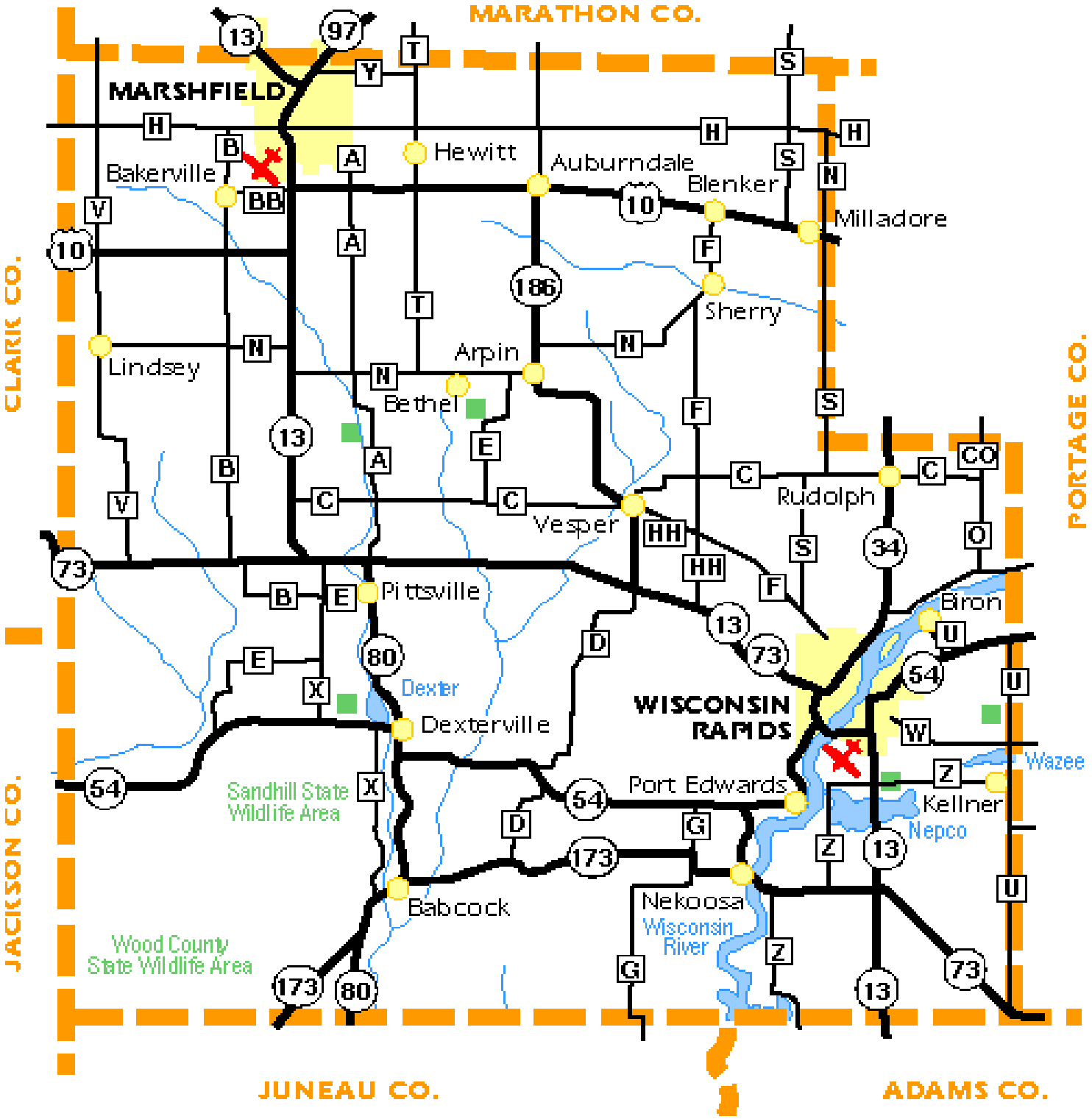
Green Bay Forecast Area Severe Weather Climatology Summary

The largest documented hail stone in Wisconsin occurred in Wausau in 1921. The hailstone measured 5.7 inches in diameter and is the state record for the largest documented hailstone. More recently, a hailstone of 5.5 inches in diameter was reported in Port Edwards in southeast Wood County on June 7, 2007.

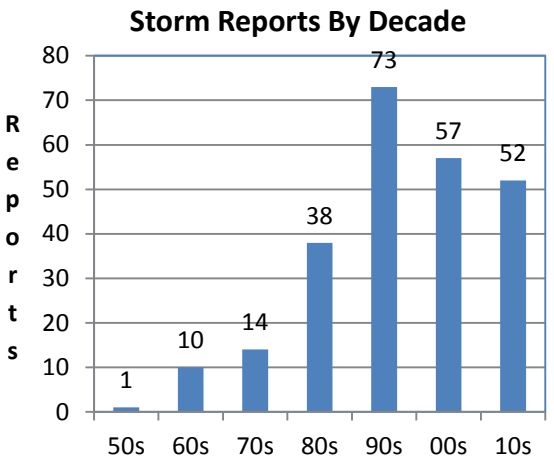
Hail	Month	Date	Year	Time	Location	County
5.70	5	??	1921	??	Wausau	Marathon
5.50	6	7	2007	1523	Port Edwards to Wisconsin Rapids	Wood
4.50	7	16	1997	1415	8 NE Merrill	Lincoln
4.25	5	22	2011	1435	0.5 E Redgranite	Waushara
4.25	5	22	2011	1505	0.8 NW Winchester	Winnebago
4.00	3	29	1998	1225	St. John	Calumet
4.00	4	25	2008	1750	0.8 SW Kings	Lincoln
4.00	7	1	2006	1431	1 N Hayes to Suring	Oconto
4.00	8	2	2015	1324	0.5 E Abrams	Oconto
4.00	8	2	2015	1332	2.8 S Brookside	Oconto
3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
3.25	7	1	2006	1505	Oconto to 6 SE Oconto Falls	Oconto
3.00	8	2	2015	1406	Rudolph	Wood
3.00	7	1	1956	1100	5 E Green Bay	Brown
3.00	8	9	2001	1250	1S Sturgeon Bay	Door
3.00	6	7	2007	1550	5 W Langlade	Langlade
3.00	4	18	2002	1530	7 WSW Bloomville to 7 NW Bradley	Lincoln
3.00	7	1	2006	1929	Branch to Manitowoc	Manitowoc
3.00	8	19	1968	1615	2 E Harmony	Marinette
3.00	7	19	1963	1500	4 S Rhinelander	Oneida
3.00	5	22	2011	1735	Plover	Portage
3.00	6	5	1999	1835	3 S to 8 SE Eagle River	Vilas
3.00	7	27	1989	1050	1 N Oshkosh	Winnebago

Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.

Wood County Severe Weather Facts (1950-2015)

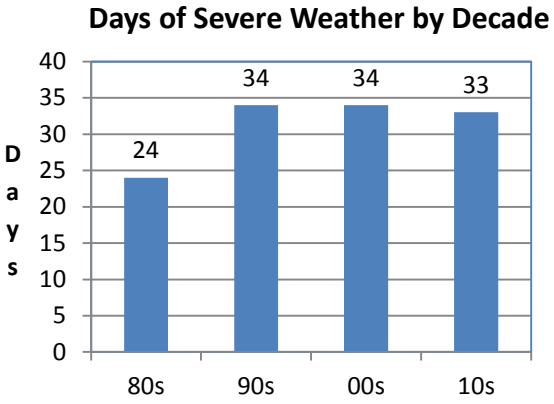


Wood County Severe Weather Facts (1950-2015)



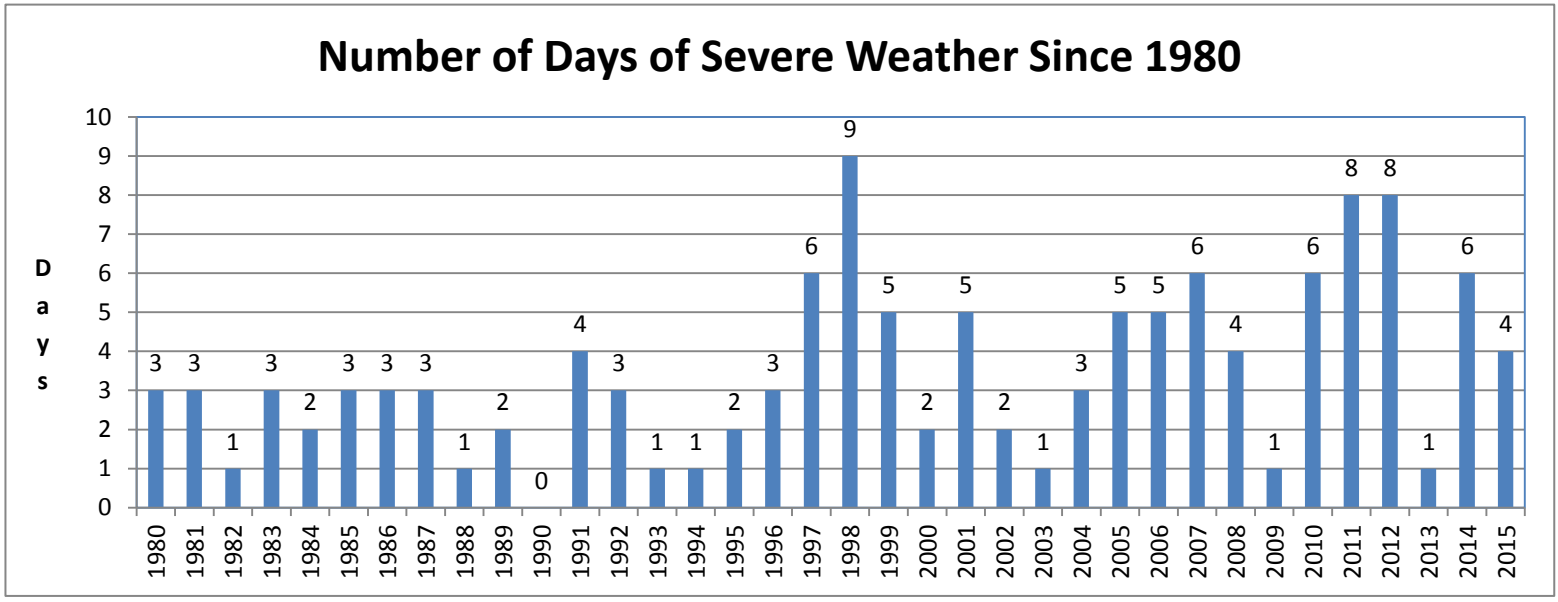
Storm Reports by Decade

Since 1950 there have been 245 documented reports of large hail, 8damaging winds and tornadoes across Wood County. The population boom of the 1980s and 1990s, combined with the SKYWARN program, led to an increase in the number of reports of severe weather during both decades. The increase in the number of reports continued between 2000 and 2009. Although the number of reports increased 114 percent from the 1980s to the 2000s, one can't say for sure there has been an increase in severe weather across northeast Wisconsin. One possible reason for the apparent increase in reports is that in some instances, multiple reports were received from a single location for the same storm due to more spotters today. Another reason for the increase in storm reports has been the focus by the National Weather Service (NWS) to improve warning verification.



Days of Severe Weather by Decade

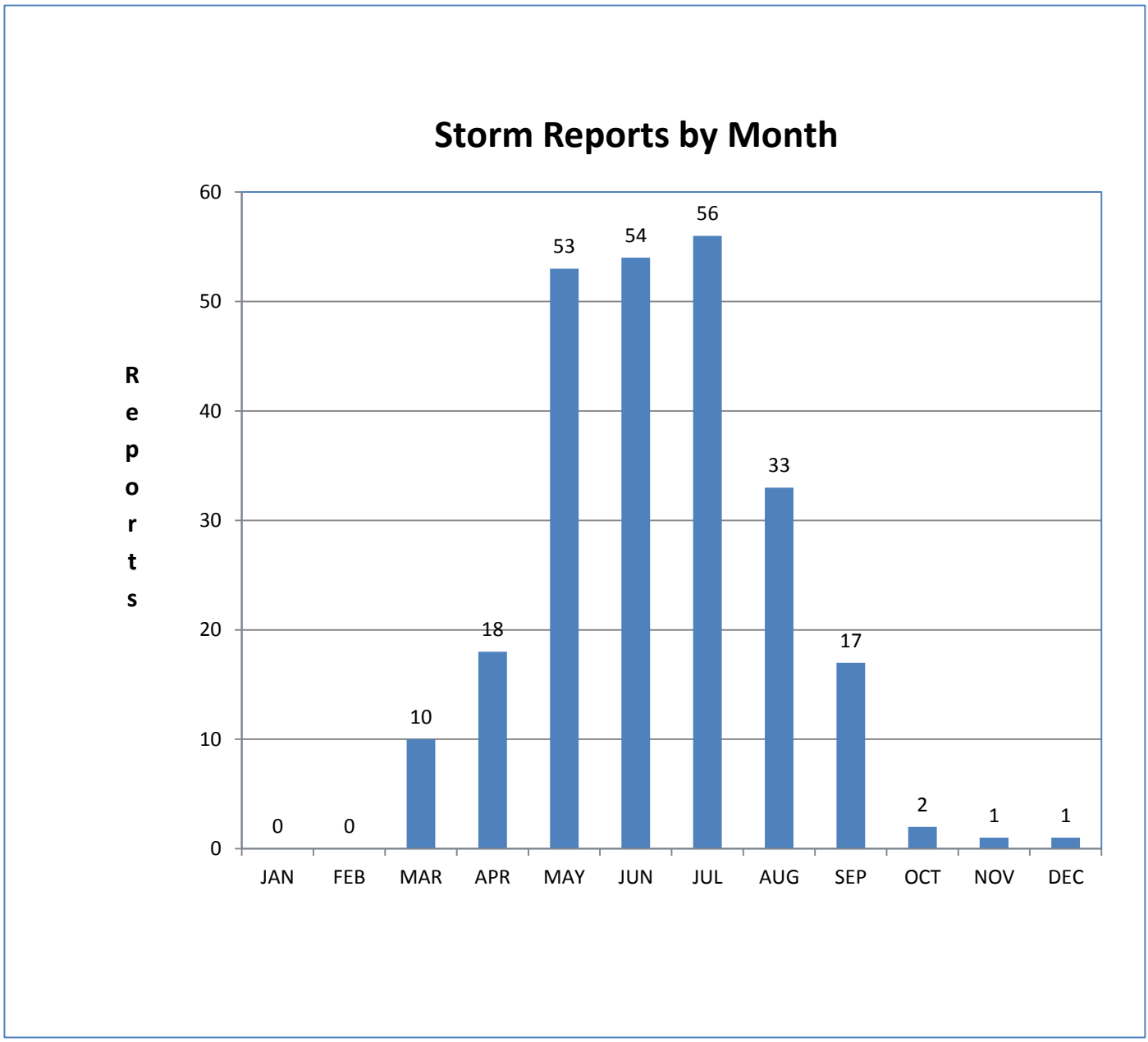
In order to address the impact of multiple reports for the same storm, the data was examined by the number of severe weather days. Since the reports were sporadic during the 1950s through the 1970s, only data from 1980 to present was used. There has been an increase of 42 percent in the number of days of severe weather from the 1980s to 2000s. This trend can be attributed to the increase in population, technology advances in reporting severe weather, and greater severe weather awareness by the public. Since 2010, Wood County averages 5.5 days of severe weather in a given year. The long term average from 1980-2015 is 3.5 days. The most active year was 1998 with nine days of severe weather; followed by eight days in 2011 and 2012, and six days in 1997, 2007, 2010 and 2014.



Wood County Severe Weather Facts (1950-2015)

Storm Reports by Month

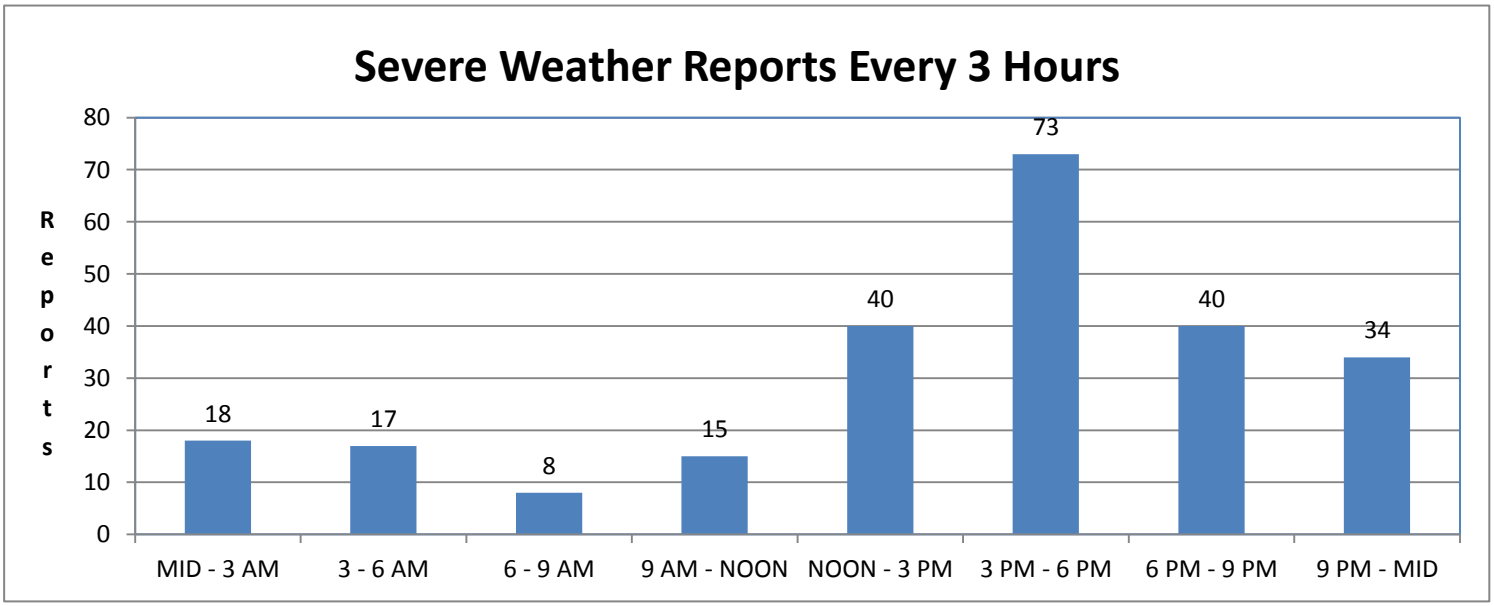
Severe weather has been documented in Wood County in every month except for January and February. On a rare occasion, severe weather breaks out during the month of March. The severe weather season begins in earnest in April, with the heart of the convective season between May and July. The warm season period of May through September accounts for 87 percent of all severe weather reports during the year. Severe weather can occur from time to time in September with isolated reports during October. The latest report of severe weather during the year occurred on December 1, 1970. On this date, an out of season tornado touched down at 9 am in the morning twelve miles southeast of Marshfield. This was one of four tornadoes that touched down between Marshfield and Green Bay on this morning. In 2012, there was a rare early morning report of three quarter inch hail about three miles south-southeast of Marshfield on November 10th around 5:08 am LST.

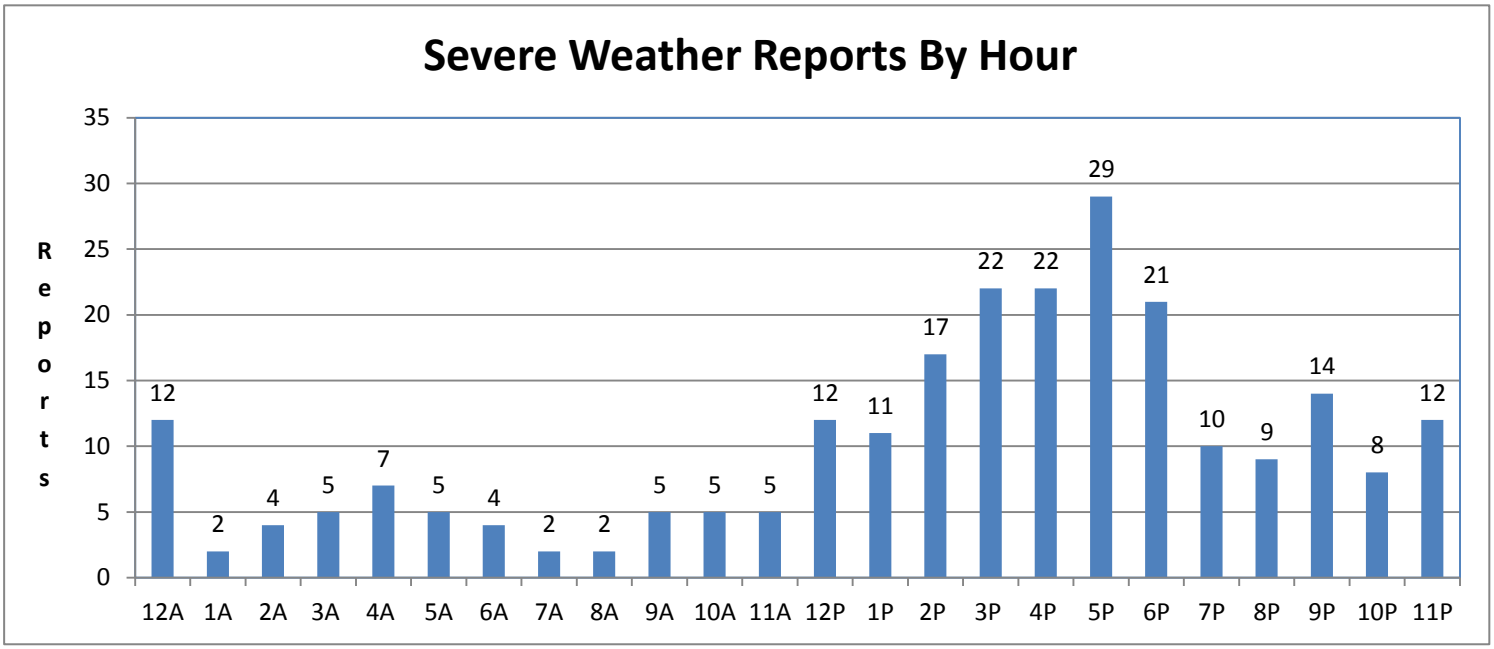


Wood County Severe Weather Facts (1950-2015)

Storm Reports by Time of Day

No matter the season, the afternoon and early evening hours are the peak time for severe weather across Wood County. Fifty-eight percent of all severe weather reports occur between 1 pm and 9 pm local standard time. Severe weather reports increased sharply after 1 pm with the peak in the number of reports between 3 pm and 7 pm local standard time. The peak in the storm activity corresponds to peak afternoon heating when the atmosphere is most unstable. There was another peak in the number of reports between midnight and 6 am between May and August. The overnight reports correspond to thunderstorms that develop across Minnesota and Dakotas and moves into the county after midnight.

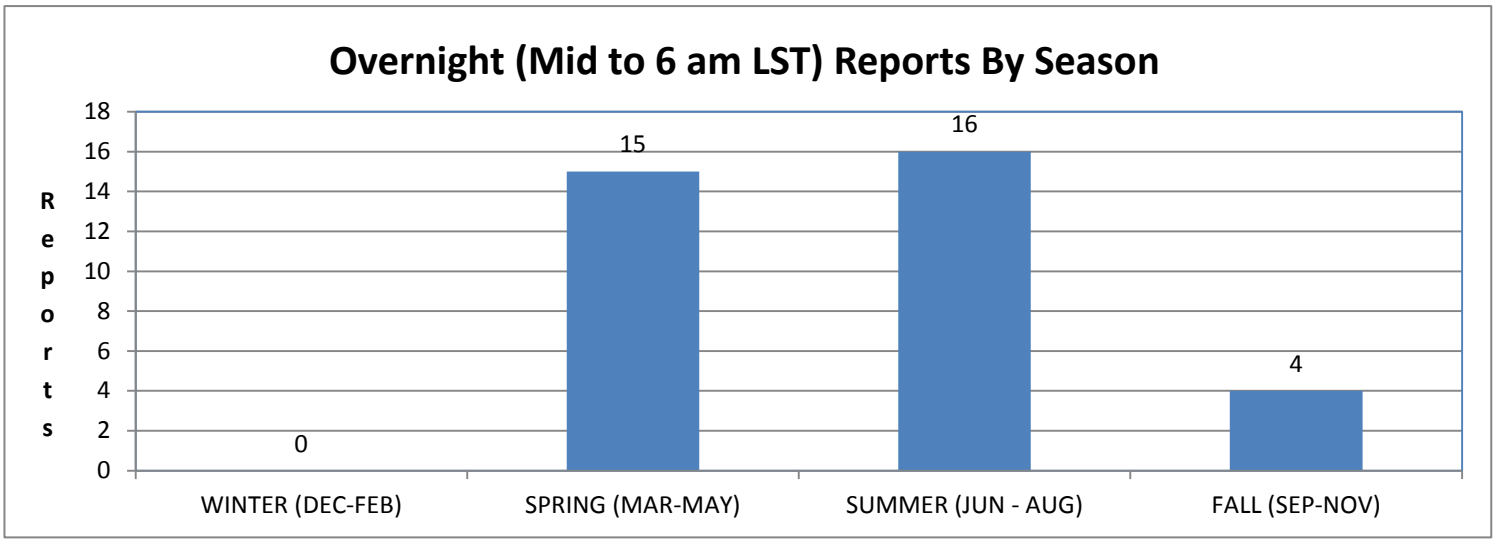




Wood County Severe Weather Facts (1950-2015)

Overnight Severe Weather Reports (Midnight to 6 am LST)

Overnight severe weather reports are most prominent during the spring and summer months and account for eighty-eight percent of all overnight severe weather reports during the year. During the late spring and summer months of June through August, nocturnal convection along warm fronts, or from complexes of storms that develop across the Dakotas and Minnesota and roll through the region during the early morning hours account for the storm reports.



Wood County Severe Weather Facts (1950-2015)

Wood County Tornadoes

Since record keeping began in 1950, there have been 19 documented tornadoes across Wood County. Of the nine-teen tornadoes, there had been zero documented as F/EF-3 or greater intensity. Five tornadoes were rated an F/EF-2 while the remaining fourteen tornadoes were rated F/EF-0 or F/EF-1. The most active years were 1967, 1970, 2000 and 2011 with two tornadoes. A tornado was reported across the county in four consecutive years from 1982 to 1985. Since 1950, tornadoes have touched down in sixteen different years. A tornado strike in Wood County occurs about every three and a half years.

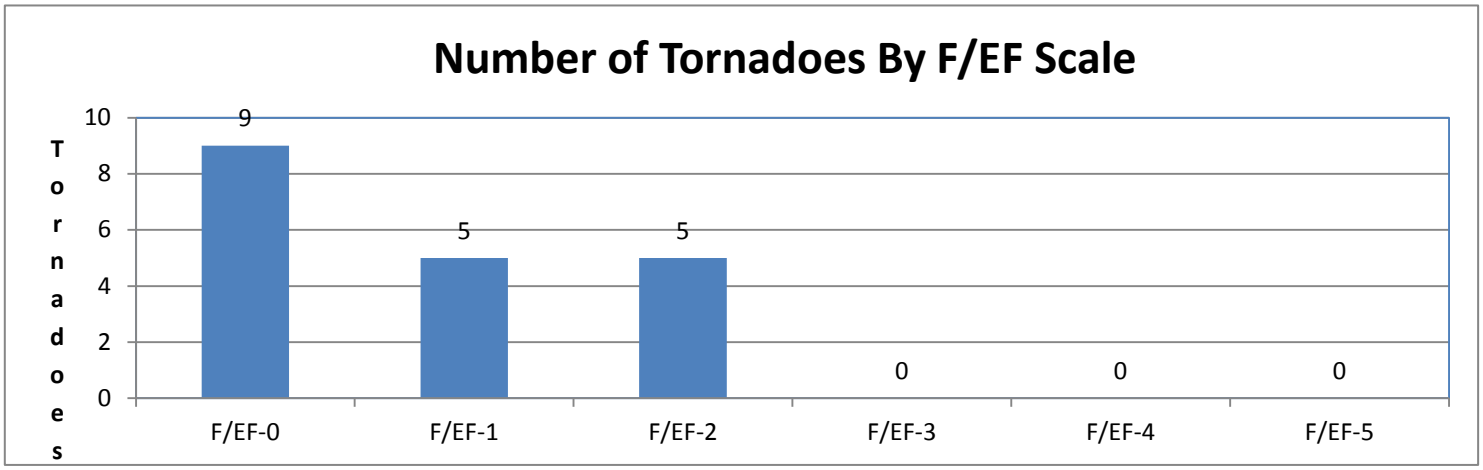
EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	7	1964	1800	Wisconsin Rapids	2
2		3	31	1967	0005	Marshfield	2
3		7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	2
4		6	17	1970	1835	3 S Wisconsin Rapids	0
5		12	1	1970	0900	12 SE Marshfield	2
6		7	8	1971	0200	Wisconsin Rapids	1
7		6	13	1976	1840-1920	4 W Wisconsin Rapids - Stevens Point	1
8		3	30	1982	1405-1440	Armenia - 3 SW Stevens Point	1
9		7	3	1983	1911	5 NE Nekoosa	0
10		4	27	1984	0405	Saratoga	0
11		8	12	1985	1813-1830	6 S Marshfield - Auburndale	2
12		4	20	1992	1600-1620	2 SW Arpin - Bakerville	1
13		8	3	1999	1745	3 W Pittsville	0
14		6	8	2003	1259-1302	4 S - 4.1 S Marshfield Airport	0
15		6	7	2007	1526	2.2 W - 2.1 W Wisconsin Rapids Airport	0
16		7	29	2008	1744-1749	4.2 SE Nasonville to 4.7 WNW Bethel	0
17		7	14	2010	1618-1619	2.5 WSW – 2.2 WSW Veedum	0
18		5	22	2011	1703-1746	5.5 SE Cranmoor – 4.8 SE Arpin	1
19		8	23	2011	1658	0.3 NW Arpin	0

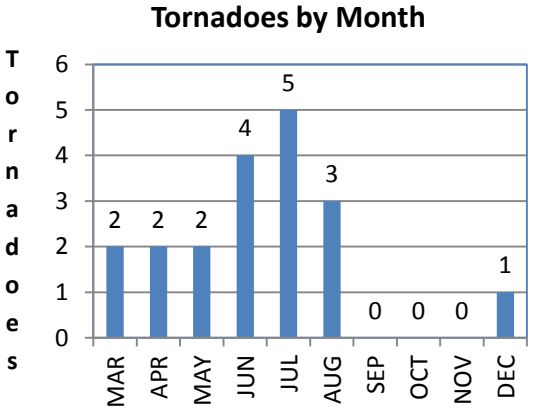
F/EF-2 or Greater Tornadoes in Wood County

EVENT		DATE			TIME		F/EF
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	RATING
1		5	7	1964	1800	Wisconsin Rapids	2
2		3	31	1967	0005	Marshfield	2
3		7	22	1967	2300-2318	2S Loyal - 5 E Marshfield	2
5		12	1	1970	0900	12 SE Marshfield	2
11		8	12	1985	1813-1830	6 S Marshfield - Auburndale	2

Additional tornado data can be found on the NWS Green Bay webpage at: **http://www.weather.gov/grb/severeclimate**

Wood County Severe Weather Facts (1950-2015)



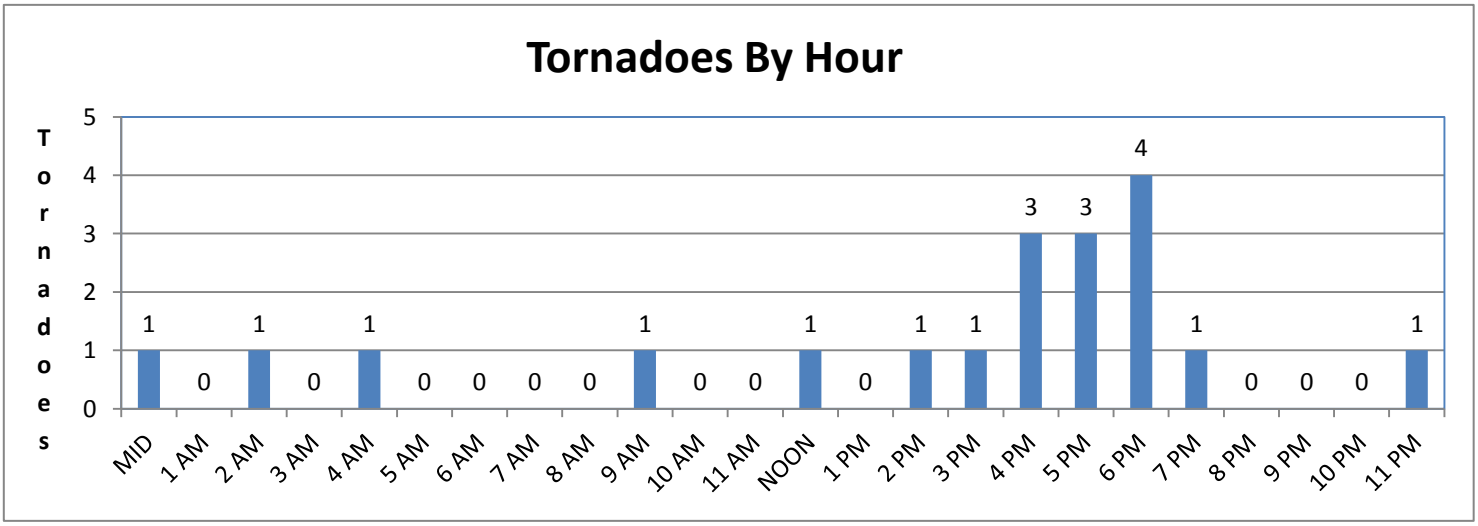


Tornadoes by Month

Documented tornadoes have occurred from March through August with a very rare tornado report in early December. The earliest documented tornado during the year occurred on March 30, 1982. On this date, an F/EF-1 tornado developed near Armenia and moved to three miles southwest of Stevens Point. The warm season months of May through August account for seventy-four percent of all tornadoes during the year. The latest documented tornado on record during year occurred on December 1, 1970. A very rare December F/EF-2 tornado touched down 12 miles southeast of Marshfield and travelled two miles to the northeast.

Tornadoes by Hour

In Wood County, thirteen out of the nineteen (sixty-eight percent) documented tornadoes have occurred between 2 pm and 8 pm local standard time. There have been no documented tornadoes between 5 am and 8 am and 10 am to 11 am and from 8 pm to 11 pm local standard time.



Wood County Severe Weather Facts (1950-2015)

Predominant Storm Reports – Wind and Hail Only

During March and April, large hail is the dominant weather event reported to the National Weather Service. During the spring, the upper atmosphere is typically colder to support large hail. Over the remainder of the convective season, the dominant reports are strong wind gusts and wind damage. Over the course of the year, nearly six out of ten reports are strong wind gusts and wind damage compared to large hail reports

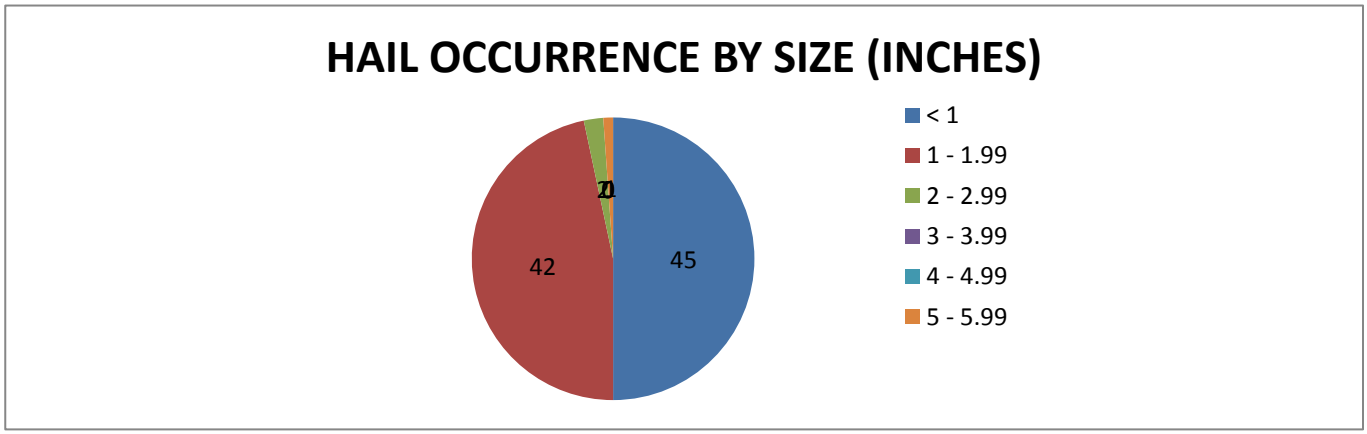
Month	% Hail Reports	% Wind / Wind damage	Month	% Hail	% Wind / Wind damage
Jan	0.0	0.0	Jul	31.4	68.6
Feb	0.0	0.0	Aug	36.7	63.3
Mar	75.0	25.0	Sep	52.9	47.1
Apr	62.5	37.5	Oct	50.0	50.0
May	52.9	47.1	Nov	0.0	0.0
Jun	28.0	72.0	Dec	0.0	0.0
			Year	42.0	58.0

Large Hail in Wood County

There have been three documented reports of hail two inches or greater in diameter across the county. The largest hail stone reported in the county was five and a half inches in diameter which occurred on June 7, 2007. This hailstone has gone down in the record books as the 2nd largest documented hailstone in Wisconsin. The state record for the largest hailstone is 5.7 inches set in Wausau in 1921. In 2014, large hail (2.25 inches) was reported at Wisconsin Rapids. Overall, hail ranging in size from three quarters to one inch accounted for seventy percent of the documented large hail reports. Large hail reports of two inches or greater only accounted for two percent of the total hail reports.

Hail over 2 inches

EVENT		DATE			TIME		HAIL
#		MONTH	DAY	YEAR	(LST)	DIRECTION / LOCATION	(INCHES)
1		5	27	2006	2122	Lindsey	2.00
2		6	7	2007	1523	Port Edwards to Wisconsin Rapids	5.50
3		7	26	2014	2350-2352	Wisconsin Rapids	2.25
4		8	2	2015	1400	3.9 E Vesper	2.00
5		8	2	2015	1406	Rudolph	3.00



Wood County Severe Weather Facts (1950-2015)

Wood County Summary

In Wood County, the severe weather season begins in earnest in April, peaks in June and then wanes quickly by September. Severe weather usually occurs in the afternoon and early evening hours, with a secondary peak between midnight and 6 am during the summer months. If you do experience severe weather, you are likely to see large hail early in the spring. Damaging winds or reports of strong wind gusts are the dominant severe weather report during the remainder of the convective season. In the Green Bay forecast area which includes 22 counties from central to northeast Wisconsin, Wood County ranks 6th in the total number of storm reports and tied for 12th in the number of tornado reports since 1950.

Green Bay Forecast Area Severe Weather Climatology Summary

Across the Green Bay forecast area which serves twenty-two counties in north-central and northeast Wisconsin, severe weather has been documented in every month except February. This includes a rare event on January 24, 1967 in which a line of thunderstorms produced damaging winds across Brown, Winnebago and Outagamie counties during the early evening hours. Another rare late season thunderstorm produced one inch hail in Florence County on December 5, 2001 while one inch hail was reported four miles west of St. Nazianz in Manitowoc County on December 20, 1967.

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3	4	3	1956	1345-1353	Berlin - 2 W Omro	Waushara-Winnebago
4	8	19	1968	1610	3 SW Pound - Marinette	Marinette
5	4	21	1974	1440-1508	5 S Ripon - Oshkosh	Winnebago
6	4	27	1984	1520-1540	1 NE Winneconne - Freedom	Winnebago-Outagamie
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Wood County Severe Weather Facts (1950-2015)

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3.50	6	8	2000	2230	10 W Middle Inlet	Marinette
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3.00	8	9	2001	1250	1S Sturgeon Bay	Door
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Note: In the May 1921 large hail event at Wausau, the exact date and time of the largest hail stone is unknown.