

Storm Data and Unusual Weather Phenomena - August 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LAKE MICHIGAN				
SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 1.4 E SHEBOYGAN [43.75, -87.69]				
	08/20/10 16:00 CST		0	Marine Thunderstorm Wind (MG 50 kt)
	08/20/10 16:00 CST		0	Source: C-MAN Station
SHEBOYGAN TO PT WASHINGTON WI COUNTY --- 0.6 N PORT WASHINGTON [43.39, -87.87]				
	08/20/10 16:11 CST		0	Marine Thunderstorm Wind (MG 43 kt)
	08/20/10 16:20 CST		0	Source: C-MAN Station
Frequent gusts to 43 knots for a nine minute period.				
A line of strong thunderstorms with a history of producing widespread damaging wind gusts over the land affected the nearshore waters of Lake Michigan north of Milwaukee.				
WISCONSIN, Southeast				
(WI-Z051) FOND DU LAC, (WI-Z052) SHEBOYGAN, (WI-Z056) SAUK, (WI-Z059) WASHINGTON, (WI-Z060) OZAUKEE, (WI-Z062) IOWA, (WI-Z069) ROCK				
	08/01/10 00:00 CST		0	Dense Fog
	08/01/10 08:00 CST		0	
Light winds, clear skies and a humid air mass over the region led to the formation of dense fog over most of South Central and Southeast Wisconsin. Many areas saw dense fog mainly between the hours of 2 am and 9 am CDT on August 1st, though Sheboygan County saw visibilities drop to 1/4 mile or less around 11 pm CDT on July 31st.				
IOWA COUNTY --- 2.5 NW DODGEVILLE [43.00, -90.17]				
	08/09/10 00:45 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 00:45 CST		0	Source: Law Enforcement
Sheriff deputies reported large trees were blown down by thunderstorm wind gusts estimated up to 56 knots (65 mph).				
SAUK COUNTY --- LOGANVILLE [43.43, -90.03], NORTH FREEDOM [43.47, -89.87]				
	08/09/10 01:00 CST		0	Thunderstorm Wind (EG 65 kt)
	08/09/10 01:10 CST		0	Source: Law Enforcement
Sheriff deputies reported extensive trees damage from thunderstorm wind gusts estimated at 65 knots (75 mph).				
IOWA COUNTY --- MINERAL PT [42.85, -90.18], HOLLANDALE [42.87, -89.93]				
	08/09/10 01:03 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 01:03 CST		0	Source: Law Enforcement
Sheriff deputies reported large trees down over many locations across eastern Iowa County from damaging thunderstorm wind gusts.				
COLUMBIA COUNTY --- 3.0 W LODI [43.32, -89.58], ARLINGTON [43.33, -89.37]				
	08/09/10 01:25 CST		0	Thunderstorm Wind (EG 65 kt)
	08/09/10 01:33 CST		0	Source: Law Enforcement
Sheriff deputies reported sporadic damage to large trees from damaging thunderstorm wind gusts estimated at 65 knots (75 mph).				
DANE COUNTY --- 4.0 NNE VERONA [43.03, -89.50], FITCHBURG [42.95, -89.47]				
	08/09/10 01:26 CST		10K	Thunderstorm Wind (EG 65 kt)
	08/09/10 01:26 CST		0	Source: Law Enforcement
Sheriff deputies reported large trees and power lines blown down from damaging thunderstorm wind gusts estimated at 65 knots (75 mph).				
MARQUETTE COUNTY --- 4.5 NNW WESTFIELD [43.94, -89.52]				
	08/09/10 01:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 01:30 CST		0	Source: Law Enforcement

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Sheriff deputies reported damage to large trees from thunderstorm wind gusts estimated at 56 knots (64 mph).				
DANE COUNTY --- MIDDLETON [43.10, -89.50]				
	08/09/10 01:34 CST		2K	Thunderstorm Wind (EG 65 kt)
	08/09/10 01:34 CST		0	Source: Law Enforcement
Sheriff deputies reported large trees blown down from damaging thunderstorm wind gusts estimated at 65 knots (75 mph). A large tree fell on a house in the 7000 block of Sagebrush Trail, resulting in minor damage.				
COLUMBIA COUNTY --- RIO [43.45, -89.23], 4.0 SE CAMBRIA [43.51, -89.04]				
	08/09/10 01:52 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 02:10 CST		0	Source: Law Enforcement
Sheriff deputies reported sporadic tree damage from thunderstorm wind gusts estimated at 56 knots (65 mph).				
ROCK COUNTY --- EDGERTON [42.83, -89.07]				
	08/09/10 01:55 CST		0	Thunderstorm Wind (EG 65 kt)
	08/09/10 02:05 CST		0	Source: Law Enforcement
Police officials reported tree damage and building damage from thunderstorm wind gusts estimated at 65 knots (75 mph).				
JEFFERSON COUNTY --- 3.0 SW LAKE MILLS [43.05, -88.94], 5.0 ENE LAKE MILLS [43.11, -88.81]				
	08/09/10 02:00 CST		0	Thunderstorm Wind (EG 65 kt)
	08/09/10 02:10 CST		0	Source: Law Enforcement
Police officials reported considerable tree damage from thunderstorm wind gusts estimated at 65 knots (75 mph).				
WAUKESHA COUNTY --- DOUSMAN [43.02, -88.47], NASHOTAH [43.10, -88.40]				
	08/09/10 02:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 02:40 CST		0	Source: Law Enforcement
Police officials reported trees and power lines blown down from damaging thunderstorm wind gusts estimated at 56 knots (65 mph).				
WASHINGTON COUNTY --- WEST BEND [43.42, -88.18], JACKSON [43.32, -88.17]				
	08/09/10 02:50 CST		0	Thunderstorm Wind (EG 56 kt)
	08/09/10 02:55 CST		0	Source: Law Enforcement
Police officials reported considerable tree damage from thunderstorm wind gusts estimated at 56 knots (65 mph). The AWOS at West Bend airport recorded a 60 mph (52 knot) wind gust at 350 am CDT.				
MILWAUKEE COUNTY --- 1.0 SW MILWAUKEE TIMMERMAN AIRPORT [43.10, -88.04]				
	08/09/10 03:00 CST		0	Thunderstorm Wind (EG 54 kt)
	08/09/10 03:00 CST		0	Source: Law Enforcement
Police officials reported trees blown down from damaging thunderstorm wind gusts. A mesonet site on the campus of Divine Savior-Holy Angels High School measured a thunderstorm wind gust of 62 mph (54 knots) at 4 am CDT.				
<p>An upper level short wave trough moved rapidly eastward across the Upper Mississippi River Valley and into Wisconsin during the early morning hours of August 9th. The approaching short wave backed low level winds to the south, which brought a moist, unstable air mass into the region with CAPE values of 2000 to 3000 J/kg. A linear mesoscale convective system developed over Nebraska and moved eastward across northern Iowa on the nose of the 30-35 knot low-level winds. This system moved into Wisconsin shortly after 1 am CDT, with the bowing line of storms producing damaging winds along a 10-mile-wide path as it moved rapidly from west to east across South Central and Southeast Wisconsin. The line of thunderstorms extensively damaged trees and downed power lines, including knocking out electrical power to 1,300 Alliant Energy customers in eastern Sauk County and northwest Dane County. Madison Gas and Electric Company reported about 4,000 of their customers lost power on the southwest side of Madison.</p>				
(WI-Z062) IOWA, (WI-Z063) DANE, (WI-Z064) JEFFERSON, (WI-Z067) LAFAYETTE, (WI-Z068) GREEN, (WI-Z069) ROCK, (WI-Z070) WALWORTH				
	08/11/10 11:00 CST		0	Heat
	08/11/10 18:00 CST		0	
Southwest winds between departing high pressure to the east of Wisconsin and low pressure developing over the Dakotas brought a moist Gulf air mass into the area as temperatures warmed into the low to mid 90's. The warm temperatures combined with dew points in the lower to middle 70s to produce Heat Index values of 100-104 degrees across parts of southern Wisconsin, including the counties				

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of Iowa, Dane, Jefferson, Lafayette, Green, Rock and Walworth.

(WI-Z052) SHEBOYGAN

	08/12/10 01:00 CST	0	Dense Fog
	08/12/10 04:00 CST	0	

Increasing low-level moisture and good radiational cooling conditions led to the formation of dense fog over portions of southern Wisconsin. The dense fog was most concentrated over Sheboygan County where visibilities fell to a 1/4 mile or less during the early morning hours of August 12th.

SAUK COUNTY --- IRONTON [43.55, -90.13], 3.0 NE LOGANVILLE [43.46, -89.99], 3.0 SE LOGANVILLE [43.40, -89.99], 2.0 W HILLPT [43.42, -90.16]

	08/13/10 11:15 CST	10K	Flash Flood (due to Heavy Rain)
	08/13/10 14:00 CST	0	Source: Newspaper

Several rounds of thunderstorms produced heavy rain that closed numerous roads, with 1 to 3 feet of water covering the roadways and washing out gravel shoulders. In addition, the thunderstorms knocked over a tree onto power lines that started a small fire along Highway 136 near North Freedom.

COLUMBIA COUNTY --- 4.8 N OKEE [43.42, -89.59], 5.0 W DEKORRA [43.46, -89.57], 3.0 NW DEKORRA [43.50, -89.51], 2.0 NW DEKORRA [43.49, -89.50]

	08/13/10 12:10 CST	0.13M	Flash Flood (due to Heavy Rain)
	08/13/10 13:30 CST	0	Source: Newspaper

Several rounds of thunderstorms produced heavy rain that closed numerous roads in Caledonia Township, west of the Wisconsin River and southwest of the city of Portage. The rushing water damaged roadways and washed out gravel shoulders, as well as causing damage to private driveways.

Repeated rounds of thunderstorms with heavy rain caused flash flooding in Sauk and Columbia counties. The thunderstorms developed ahead of a warm front, as a low-level jet pushed warm, moist air over the boundary. Surface temperatures in the low to mid 80's, along with moist dew points in the low 70's, contributed to the instability needed for the thunderstorms as well as provided ample moisture for the heavy rain. Precipitable water values were over 2 inches. National Weather Service Doppler radar estimated 5 to 6 inches of rain fell in extreme northwest Sauk County.

GREEN LAKE COUNTY --- 3.7 SSW BERLIN [43.92, -88.96], BERLIN [43.97, -88.93]

	08/20/10 14:07 CST	0.10M	Thunderstorm Wind (EG 50 kt)
	08/20/10 14:15 CST	2K	Source: County Official

County officials reported a tree fell through a house in Berlin. Power lines were reported down by the strong thunderstorm gusts, as well as minor crop damage.

GREEN COUNTY --- BRODHEAD [42.62, -89.37]

	08/20/10 14:35 CST	0	Thunderstorm Wind (EG 50 kt)
	08/20/10 14:35 CST	0	Source: Law Enforcement

County sheriff deputies reported trees and power lines were blown down by the strong thunderstorm gusts.

JEFFERSON COUNTY --- WHITEWATER [42.83, -88.73], 4.0 W PALMYRA [42.88, -88.68]

	08/20/10 14:45 CST	0	Thunderstorm Wind (EG 50 kt)
	08/20/10 15:30 CST	0	Source: Law Enforcement

County sheriff deputies reported trees were blown down in and around the city of Whitewater to just west of Palmyra by the strong thunderstorm gusts. The damage was produced by three separate storms that trained over the area. There was also urban flooding in Whitewater and Palmyra caused by 2 inches of rain that fell in 45 minutes.

ROCK COUNTY --- 2.0 SW DOWNTOWN JANESVILLE [42.66, -89.05], 2.0 NE DOWNTOWN JANESVILLE [42.70, -88.99]

	08/20/10 14:45 CST	0	Thunderstorm Wind (MG 50 kt)
	08/20/10 14:50 CST	0	Source: Law Enforcement

County sheriff deputies reported trees and power lines were blown down by the strong thunderstorm gusts. The AWOS at Janesville airport recorded a 58 mph (50 knot) wind gust at 345 pm CDT.

DANE COUNTY --- STOUGHTON [42.92, -89.22]

	08/20/10 14:57 CST	0	Thunderstorm Wind (EG 50 kt)
	08/20/10 15:05 CST	0	Source: Law Enforcement

County sheriff deputies reported trees and power lines were blown down by the strong thunderstorm gusts.

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JEFFERSON COUNTY --- FT ATKINSON [42.93, -88.85]				
	08/20/10 15:15 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:15 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down by the strong thunderstorm gusts.				
SAUK COUNTY --- 8.0 W LA VALLE [43.58, -90.29], 3.0 E LA VALLE [43.58, -90.07]				
	08/20/10 15:18 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:18 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down by the strong thunderstorm gusts.				
JEFFERSON COUNTY --- 4.0 NW LAKE MILLS [43.12, -88.96], WATERTOWN [43.20, -88.72]				
	08/20/10 15:25 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:30 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down by the strong thunderstorm gusts.				
WAUKESHA COUNTY --- STONEBANK [43.15, -88.42]				
	08/20/10 15:28 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:28 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down by the strong thunderstorm gusts.				
JEFFERSON COUNTY --- 3.7 NE OAK HILL [42.97, -88.55]				
	08/20/10 15:36 CST	0		Thunderstorm Wind (MG 50 kt)
	08/20/10 15:36 CST	0		Source: Official NWS Observations
The peak thunderstorm wind gust of 58 mph (50 knots) measured at the National Weather Service office southeast of Sullivan.				
DODGE COUNTY --- LOWELL [43.33, -88.80]				
	08/20/10 15:40 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:40 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down in the Lowell area by the strong thunderstorm gusts.				
WASHINGTON COUNTY --- SLINGER [43.33, -88.28]				
	08/20/10 15:45 CST	0		Thunderstorm Wind (MG 53 kt)
	08/20/10 15:45 CST	0		Source: Mesonet
The peak thunderstorm wind gust of 61 mph (53 knots) was measured at a mesonet site in Slinger.				
DODGE COUNTY --- HORICON [43.45, -88.63], 3.0 W LOMIRA [43.58, -88.49]				
	08/20/10 15:50 CST	0		Thunderstorm Wind (EG 50 kt)
	08/20/10 15:50 CST	0		Source: Law Enforcement
County sheriff deputies reported trees were blown down by the strong thunderstorm gusts.				
SHEBOYGAN COUNTY --- OOSTBURG [43.62, -87.80], SHEBOYGAN [43.75, -87.72]				
	08/20/10 15:52 CST	0		Thunderstorm Wind (EG 52 kt)
	08/20/10 16:00 CST	0		Source: Law Enforcement
County Sheriff deputies reported tree damage due to thunderstorm wind gusts along a path from Oostburg to the city of Sheboygan. The Sheboygan C-MAN observation site at the harbor recorded a 49 knot (56 mph) wind gust at 5 pm CDT.				
WAUKESHA COUNTY --- 3.0 SE PEWAUKEE [43.05, -88.23]				
	08/20/10 16:00 CST	0		Thunderstorm Wind (MG 56 kt)
	08/20/10 16:00 CST	0		Source: Trained Spotter
The peak thunderstorm wind gust of 65 mph (56 knots) measured by a trained spotter.				

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WASHINGTON COUNTY --- WEST BEND [43.42, -88.18]				
	08/20/10 16:01 CST		0	Thunderstorm Wind (MG 64 kt)
	08/20/10 16:01 CST		0	Source: Mesonet
The peak thunderstorm wind gust of 74 mph (64 knots) was measured by a trained spotter in West Bend.				
FOND DU LAC COUNTY --- 0.5 NW EDEN [43.71, -88.38]				
	08/20/10 16:10 CST		75K	Thunderstorm Wind (EG 50 kt)
	08/20/10 16:10 CST		0	Source: Law Enforcement
Law enforcement officials reported a 100-year old barn was blown down by thunderstorm wind gusts estimated at 50 knots (58 mph).				
MARQUETTE COUNTY --- OXFORD [43.78, -89.57]				
	08/20/10 16:10 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:10 CST		0	Source: Amateur Radio
An amateur radio operator reported tree damage and power lines blown down onto a home in Oxford by thunderstorm wind gusts estimated at 56 knots (65 mph).				
COLUMBIA COUNTY --- 5.0 N PARDEEVILLE [43.60, -89.28]				
	08/20/10 16:25 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:25 CST		0	Source: Emergency Manager
The Columbia County emergency manager reported tree damage caused by thunderstorm wind gusts estimated at 56 knots (65 mph).				
SHEBOYGAN COUNTY --- 2.5 W RANDOM LAKE [43.55, -88.02]				
	08/20/10 16:25 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:25 CST		0	Source: Fire Department/Rescue
Fire officials reported tree damage by thunderstorm wind gusts estimated at 56 knots (65 mph).				
FOND DU LAC COUNTY --- 3.0 SE CAMPBELLSPORT [43.57, -88.24]				
	08/20/10 16:30 CST		0	Thunderstorm Wind (EG 70 kt)
	08/20/10 16:30 CST		0	Source: Law Enforcement
Law enforcement officials reported shingles blown off a home and tree damage by thunderstorm wind gusts estimated at 70 knots (81 mph).				
GREEN LAKE COUNTY --- DALTON [43.65, -89.20]				
	08/20/10 16:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:30 CST		0	Source: Emergency Manager
The Green Lake County emergency manager reported tree damage caused by thunderstorm wind gusts estimated at 56 knots (65 mph).				
SHEBOYGAN COUNTY --- WALDO [43.67, -87.95]				
	08/20/10 16:30 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:30 CST		0	Source: Fire Department/Rescue
Fire officials reported tree damage by thunderstorm wind gusts estimated at 56 knots (65 mph).				
WALWORTH COUNTY --- 0.5 SE WALWORTH [42.52, -88.59]				
	08/20/10 16:30 CST		25K	Thunderstorm Wind (EG 50 kt)
	08/20/10 16:30 CST		0	Source: Emergency Manager
The Walworth County Emergency Manager reported a pole barn was partially damaged by thunderstorm winds estimated at 50 knots (58 mph).				
WALWORTH COUNTY --- 2.0 S DELAVAN [42.60, -88.63]				
	08/20/10 16:37 CST		25K	Thunderstorm Wind (EG 50 kt)
	08/20/10 16:41 CST		0	Source: Emergency Manager
The Walworth County Emergency Manager reported tree damage caused by thunderstorm winds estimated at 50 knots (58 mph).				

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OZAUKEE COUNTY --- PORT WASHINGTON [43.38, -87.87]				
	08/20/10 16:38 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:38 CST		0	Source: Law Enforcement

Law enforcement officials reported tree damage by thunderstorm wind gusts estimated at 56 knots (65 mph).

GREEN LAKE COUNTY --- 1.5 ESE GREEN LAKE [43.82, -88.92], 2.5 ENE GREEN LAKE [43.84, -88.90]				
	08/20/10 16:40 CST		0	Thunderstorm Wind (EG 87 kt)
	08/20/10 16:42 CST		0	Source: NWS Storm Survey

Based on a report from county emergency managers, an NWS storm survey team determined damage located near the northeast shore of Green Lake was caused by microburst winds estimated at 100 mph (81 knots). Eight homes, a boat and two piers were damaged by the winds. Four dozen trees were uprooted or snapped along the path of the microburst winds.

SHEBOYGAN COUNTY --- SHEBOYGAN FALLS [43.73, -87.82], KOHLER [43.73, -87.78]				
	08/20/10 16:40 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:40 CST		0	Source: Fire Department/Rescue

Fire officials reported tree damage by thunderstorm wind gusts estimated at 56 knots (65 mph).

SHEBOYGAN COUNTY --- HOWARDS GROVE [43.83, -87.82]				
	08/20/10 16:45 CST		0	Thunderstorm Wind (EG 56 kt)
	08/20/10 16:45 CST		0	Source: Fire Department/Rescue

Fire officials reported tree damage by thunderstorm wind gusts estimated at 56 knots (65 mph).

A short wave moving up the leading flank of an elongated large-scale trough that extended from the Upper Mississippi River Valley to the Central Plains provided large-scale lift for thunderstorm development over southern Wisconsin. A warm front extended across central Wisconsin back to surface low pressure over west-central Minnesota. This placed southern Wisconsin in a warm humid air mass, with temperatures in the 80's and dew points in the lower 70's producing CAPE values reaching 2000 J/kg. Deep-layer shear profiles were favorable for supercells as well as multicell line segments that produced damaging wind gusts. The thunderstorm winds caused widespread tree and power line damage. WE energies reported 23,000 customers were without power.

(WI-Z058) DODGE				
	08/22/10 03:00 CST		0	Dense Fog
	08/22/10 07:00 CST		0	

Light winds and a lingering humid air mass over the region led to the formation of dense fog over a small part of Southeast Wisconsin. While many areas saw visibilities fall to 1/2 mile to 1 mile, only Dodge County experienced dense fog with visibilities of 1/8 to 1/4 mile.