

Storm Data and Unusual Weather Phenomena - January 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

INDIANA, Northeast

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z012) STARKE

01/01/10 14:00 EST	0	Lake-Effect Snow
01/02/10 03:00 EST	0	

An intense lake effect snow band set up across far north-central Indiana during the afternoon hours of January 1st. This band continued into the early morning hours of January 2nd, with a few locations receiving more than a foot of fluffy snow accumulation.

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z012) STARKE, (IN-Z013) PULASKI, (IN-Z014) MARSHALL, (IN-Z015) FULTON, (IN-Z016) KOSCIUSKO, (IN-Z017) WHITLEY, (IN-Z018) ALLEN, (IN-Z020) WHITE, (IN-Z022) CASS, (IN-Z023) MIAMI, (IN-Z024) WABASH, (IN-Z025) HUNTINGTON, (IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

01/07/10 05:00 EST	0	Winter Weather
01/07/10 18:00 EST	0	

Widespread light to moderate snow fell during the daylight hours of January 7th as an Alberta Clipper tracked through the region. Snowfall amounts generally ranged between 4 and 6 inches.

(IN-Z003) LA PORTE

01/08/10 11:00 EST	0	Lake-Effect Snow
01/09/10 05:00 EST	0	

An intense lake effect snow band set up across La Porte County on January 8th. This intense single band deposited over a foot of snow across the western half of the county.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS

01/01/10 13:00 EST	0	Lake-Effect Snow
01/02/10 03:00 EST	0	

An intense lake effect snow band set up across far southwest Lower Michigan during the afternoon hours of January 1st. This band continued into the early morning hours of January 2nd, with a few locations receiving more than a foot of fluffy snow accumulation.

OHIO, Northwest

(OH-Z004) DEFIANCE, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

01/07/10 08:00 EST	0	Winter Weather
01/07/10 18:00 EST	0	

Widespread light to moderate snow fell during the daylight hours of January 7th as an Alberta Clipper tracked through the region. Snowfall amounts generally ranged between 3 and 5 inches.

Storm Data and Unusual Weather Phenomena - February 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

INDIANA, Northeast

(IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

02/05/10 10:00 EST	0	Winter Storm
02/06/10 05:00 EST	0	

Light to moderate snow and strong winds resulted in low visibilities and drifting snow February 5th into early February 6th, as a rapidly intensifying area of low pressure tracked eastward through the lower Ohio Valley. Snowfall totals generally ranged between 4 and 8 inches, with drifts as high as 3 to 4 feet.

(IN-Z003) LA PORTE, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z012) STARKE, (IN-Z013) PULASKI, (IN-Z014) MARSHALL, (IN-Z015) FULTON, (IN-Z016) KOSCIUSKO, (IN-Z017) WHITLEY, (IN-Z018) ALLEN, (IN-Z020) WHITE

02/09/10 02:00 EST	0	Winter Storm
02/10/10 11:00 EST	0	

(IN-Z022) CASS, (IN-Z023) MIAMI, (IN-Z024) WABASH, (IN-Z025) HUNTINGTON, (IN-Z026) WELLS, (IN-Z027) ADAMS, (IN-Z032) GRANT, (IN-Z033) BLACKFORD, (IN-Z034) JAY

02/09/10 02:00 EST	0	Winter Weather
02/10/10 05:00 EST	0	

Light to moderate snow fell across the region February 9th into early February 10th as an intensifying area of low pressure tracked northeastward from the Tennessee Valley into northern Ohio. Snowfall totals generally ranged between 6 and 10 inches.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS, (MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

02/09/10 03:00 EST	0	Winter Storm
02/10/10 06:00 EST	0	

Light to moderate snow fell across the region February 9th into early February 10th as an intensifying area of low pressure tracked northeastward from the Tennessee Valley into northern Ohio. Snowfall totals generally ranged between 6 and 10 inches.

(MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

02/21/10 21:00 EST	0	Winter Storm
02/22/10 10:00 EST	0	

A strengthening area of low pressure tracked through central Indiana and northern Ohio, bringing a period of wet heavy snow to much of southern Lower Michigan late on February 21st into early February 22nd. Snowfall amounts of 5-8" were common across the region.

OHIO, Northwest

(OH-Z024) VAN WERT, (OH-Z025) ALLEN

02/05/10 13:00 EST	0	Winter Storm
02/06/10 09:00 EST	0	

Light to moderate snow and strong winds resulted in low visibilities and drifting snow February 5th into early February 6th, as a rapidly intensifying area of low pressure tracked eastward through the lower Ohio Valley. Snowfall totals generally ranged between 4 and 8 inches, with drifts as high as 3 to 4 feet.

(OH-Z001) WILLIAMS, (OH-Z002) FULTON, (OH-Z004) DEFIANCE, (OH-Z005) HENRY, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

02/09/10 04:00 EST	0	Winter Storm
02/10/10 06:00 EST	0	

Moderate to heavy snow fell across the region February 9th into early February 10th as an intensifying area of low pressure tracked northeastward from the Tennessee Valley into northern Ohio. Snowfall totals generally ranged between 6 and 11 inches.

Storm Data and Unusual Weather Phenomena - February 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

Storm Data and Unusual Weather Phenomena - April 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

INDIANA, Northeast

ST. JOSEPH COUNTY --- 0.7 N SOUTH BEND [41.68, -86.25]

04/06/10 09:24 EST		0		Hail (0.75 in)
04/06/10 09:25 EST		0		Source: Trained Spotter

A trained spotter reported hail ranging from pea to penny size.

The same boundary that allowed for strong to severe storms on April 5th in far southern lower Michigan, became stationary across the Indiana/Michigan/Ohio state line. Upper level energy moved along the front, causing showers and thunderstorms to develop. The majority of the severe weather remained outside the northern Indiana forecast area. However a few storms did produce hail ranging from pea to quarter size.

ALLEN COUNTY --- 1.4 SW MEADOWBROOK [41.05, -85.05], 1.1 SW MEADOWBROOK [41.06, -85.04]

04/07/10 19:00 EST		25K		Thunderstorm Wind (EG 52 kt)
04/07/10 19:02 EST		0		Source: Emergency Manager

Emergency management officials reported that a total of 9 mobile homes suffered varying degrees of damage. The majority of the damage was confined to skirting and support blocks. The southeast facing end of a mobile home was shifted off its blocks, but the home suffered only minor damage beyond that. Trees in the park and outside it were not damaged. Damage is estimated at \$25,000.

A cold front moved slowly through the area during the late afternoon and early evening hours. While overall instability was modest, strong wind fields were in place. Earlier convection had resulted in no severe weather during peak heating. As evening approached, an area of storms developed and intensified as it moved across Allen county. Isolated wind damage was reported in a mobile home park in New Haven.

MICHIGAN, Extreme Southwest

CASS COUNTY --- 0.9 NNW DOWAGIAC CASS ARPT [41.99, -86.12], 0.6 NNW MARCELLUS [42.04, -85.83]

04/05/10 22:30 EST		0.40M		Thunderstorm Wind (MG 63 kt)
04/05/10 22:40 EST		0		Source: Emergency Manager

An area of scattered damage originated at the Dowagiac airport, with a hangar suffering moderate damage. The wind damage continued to expand with the roof being shifted off a business in the 54000 block of M-51. The remainder of the damage was confined to numerous three to four foot diameter trees being uprooted or snapped, as well as some large branches down. A few of these did fall on a few structure but damage was very limited. Damage for the area is estimated at \$400,000.

ST. JOSEPH COUNTY --- 0.5 W FLOWERFIELD [42.07, -85.66]

04/05/10 22:50 EST		0		Hail (0.88 in)
04/05/10 22:51 EST		0		Source: Trained Spotter

ST. JOSEPH COUNTY --- 0.7 N THREE RIVERS [41.94, -85.63]

04/05/10 23:00 EST		0		Thunderstorm Wind (EG 55 kt)
04/05/10 23:01 EST		0		Source: Trained Spotter

Trained spotters reported several trees down in the Three Rivers area. One of these fell onto a house. No damage estimate was available.

ST. JOSEPH COUNTY --- 0.7 N THREE RIVERS [41.94, -85.63]

04/05/10 23:02 EST		0		Hail (1.00 in)
04/05/10 23:03 EST		0		Source: Trained Spotter

BRANCH COUNTY --- 0.5 W UNION CITY [42.07, -85.14]

04/05/10 23:15 EST		0		Thunderstorm Wind (EG 55 kt)
04/05/10 23:16 EST		0		Source: Law Enforcement

Law enforcement officials reported several trees down in the Union City area.

BRANCH COUNTY --- 0.5 W UNION CITY [42.07, -85.14]

Storm Data and Unusual Weather Phenomena - April 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	04/05/10 23:19 EST		0	Hail (1.00 in)
	04/05/10 23:20 EST		0	Source: Law Enforcement

BRANCH COUNTY --- 3.1 W UNION CITY [42.07, -85.19]

04/05/10 23:39 EST	0	Thunderstorm Wind (EG 55 kt)
04/05/10 23:40 EST	0	Source: Emergency Manager

Emergency management officials reported the top of a pine tree was broken off and blown onto a road three miles west of Union City.

A slow moving warm front, which extended from northern Illinois into far southern lower Michigan, provided the focus for numerous showers and thunderstorms. A few of these storms produced damaging winds of greater than 70 mph and hail to one inch in diameter.

OHIO, Northwest

PAULDING COUNTY --- 2.5 NW KNOXDALE [41.22, -84.71]

04/07/10 19:06 EST	10K	Thunderstorm Wind (EG 56 kt)
04/07/10 19:07 EST	0	Source: Law Enforcement

Emergency management officials reported west facing barn doors were blown into the barn with north facing doors blown out. Damage was estimated at \$10,000.

PAULDING COUNTY --- 0.6 N CECIL [41.23, -84.60], 1.0 NNE CECIL [41.23, -84.59]

04/07/10 19:14 EST	0.10M	Thunderstorm Wind (EG 60 kt)
04/07/10 19:16 EST	0	Source: Emergency Manager

Emergency management officials reported that damage was observed along a roughly half mile long path. The damage started near the intersection of county highway C-105 and U.S. 24. Two mobile homes that were attached together, were flipped over, destroying it. As the wind continued east a pole barn next to the mobile home was destroyed. Along U.S. 24, several trees were uprooted in two separate residences. Two homes suffered roof damage as well. The damage ended just across the Maumee River where several large broken tree limbs were found along the river bank. The combined damage is estimated at \$100,000.

DEFIANCE COUNTY --- 2.5 S ASHWOOD [41.23, -84.44], 2.4 E AYERSVILLE [41.23, -84.23]

04/07/10 19:20 EST	20K	Thunderstorm Wind (EG 60 kt)
04/07/10 19:24 EST	0	Source: Law Enforcement

Law enforcement officials reported trees and power lines down across mainly the southern parts of the county. Damage is estimated at \$20,000.

A cold front moved slowly through the area during the early evening hours. While overall instability was modest, strong wind fields were in place. An area of storms developed in far eastern Indiana and tracked northeast into Paulding county. This area produced sporadic damage across the county before weakening.

HENRY COUNTY --- 1.3 WSW NAPOLEON [41.37, -84.15]

04/25/10 13:15 EST	10K	Thunderstorm Wind (EG 56 kt)
04/25/10 13:16 EST	0	Source: Broadcast Media

A local television station reported several trees were uprooted in the Glenwood Cemetery. Some of the grave markers were moved.

Low pressure was moving from Illinois into Indiana during the afternoon and evening hours. An unstable atmosphere was in place ahead of the low, allowing for showers and thunderstorms to develop, mainly across northwestern Ohio. One storm moved through Henry county, producing some damage in the Napoleon area.

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

INDIANA, Northeast

JAY COUNTY --- 4.2 N BRYANT [40.59, -84.96]

05/01/10 04:00 EST			50K	Lightning
05/01/10 04:00 EST			0	Source: Fire Department/Rescue

Fire officials reported lightning started a house fire on the south side of Geneva. Several homes adjacent to the residence suffered minor damage.

ALLEN COUNTY --- 0.7 N MEADOWBROOK [41.08, -85.03]

05/01/10 04:05 EST		1	0	Lightning
05/01/10 04:05 EST			0	Source: Broadcast Media

Local television stations reported a 18 year old male was found dead under a tree around 8 am May 1st. Indications were that lightning struck a tree the young man was standing under and traveled into his back. Autopsy revealed he was killed instantly.

Direct Fatalities: M18UT

Early morning thunderstorms moved across portions of northern Indiana. Lightning from the storms was responsible for a death of a young man in New Haven as well as a house fire in Geneva.

CASS COUNTY --- 0.5 E LOGANSPORT [40.75, -86.34]

05/03/10 16:28 EST			0	Hail (0.88 in)
05/03/10 16:29 EST			0	Source: Trained Spotter

An outflow boundary, from convection during the early morning hours of the 3rd, interacted with steep lapse rates, decent shear and surface based CAPE of around 1000 j/kg to spark several thunderstorms. The majority remained below severe limits with only one storm producing hail to the size of nickels.

HUNTINGTON COUNTY --- 2.3 NNW MILO [40.70, -85.49]

05/05/10 17:01 EST			0	Hail (0.88 in)
05/05/10 17:02 EST			0	Source: Amateur Radio

HUNTINGTON COUNTY --- WARREN [40.68, -85.43]

05/05/10 17:02 EST			0	Hail (1.50 in)
05/05/10 17:03 EST			0	Source: Trained Spotter

HUNTINGTON COUNTY --- WARREN [40.68, -85.43]

05/05/10 17:04 EST			0	Hail (1.00 in)
05/05/10 17:05 EST			0	Source: Trained Spotter

HUNTINGTON COUNTY --- WARREN [40.68, -85.43]

05/05/10 17:06 EST			0	Hail (1.00 in)
05/05/10 17:07 EST			0	Source: Trained Spotter

WELLS COUNTY --- 0.7 N BLUFFTON [40.74, -85.17]

05/05/10 17:20 EST			0	Hail (1.00 in)
05/05/10 17:21 EST			0	Source: Law Enforcement

Local law enforcement officials reported hail ranging from nickel to quarter size.

WELLS COUNTY --- 0.7 N BLUFFTON [40.74, -85.17]

05/05/10 17:20 EST			0	Thunderstorm Wind (EG 50 kt)
05/05/10 17:21 EST			0	Source: Law Enforcement

In addition to the hail, law enforcement officials reported a tree was blown down in Bluffton.

Convergence along a cold front, combined with moderate shear and weak instability, allowed for the development of numerous thunderstorms. The primary threat from the storms was large hail.

WHITLEY COUNTY --- 2.8 S SOUTH WHITLEY [41.04, -85.63]

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/07/10 16:27 EST		0	Hail (0.88 in)
	05/07/10 16:28 EST		0	Source: Amateur Radio

ALLEN COUNTY --- 2.9 SW FT WAYNE SMITH ARPT [41.12, -85.19]

05/07/10 16:45 EST	20K	Thunderstorm Wind (EG 55 kt)
05/07/10 16:46 EST	0	Source: Broadcast Media

Local media reported a large tree was blown down onto a Chevy Tahoe in the 5100 block of Hillegas Road. Pictures taken by the media outlet showed the truck suffered extensive damage to the front and cab areas. Damage is estimated at \$20,000.

ALLEN COUNTY --- 3.0 NNE WESTLAWN [41.12, -85.23]

05/07/10 16:45 EST	45K	Thunderstorm Wind (EG 55 kt)
05/07/10 16:46 EST	0	Source: Public

The public reported around a dozen power poles being blown down south of US-30, near the intersection of Leesburg and Flaugh. Damage is estimated at \$45,000.

ALLEN COUNTY --- 1.4 S FT WAYNE SMITH ARPT [41.13, -85.15]

05/07/10 16:53 EST	0	Hail (1.75 in)
05/07/10 16:54 EST	0	Source: NWS Employee

Pea to golf-ball size hail was reported.

ALLEN COUNTY --- 0.7 N FT WAYNE [41.08, -85.13]

05/07/10 16:56 EST	0	Hail (1.75 in)
05/07/10 16:57 EST	0	Source: Law Enforcement

Local law enforcement reported golf ball size hail on the northwest side of Fort Wayne.

ALLEN COUNTY --- 1.0 W HARLAN [41.20, -84.94]

05/07/10 17:00 EST	0	Thunderstorm Wind (EG 50 kt)
05/07/10 17:01 EST	0	Source: Law Enforcement

Law enforcement officials reported a barn was destroyed at the intersection of Cuba and Trammel Road. No damage estimate was available.

ALLEN COUNTY --- 2.3 SSE FT WAYNE [41.04, -85.11]

05/07/10 17:30 EST	45K	Thunderstorm Wind (EG 55 kt)
05/07/10 17:31 EST	0	Source: Emergency Manager

Emergency management officials reported numerous trees and power lines down between Paulding Road and McKinnie Ave. In addition, several trees and tree limbs fell onto various structures and vehicles. Damage is estimated at \$45,000.

After a cold and rainy start to the day, low pressure tracked towards the area, reaching Defiance, Ohio early Friday evening. Strong shear and moderate instability was in place across the area., allowing for two supercells to develop in Allen county where wind damage was reported. The storms continued to intensify and move into northwestern Ohio.

DE KALB COUNTY --- 4.2 N ARTIC [41.53, -84.81], 0.8 NW HAMILTON [41.53, -84.93], 3.9 WSW SPENCERVILLE [41.27, -84.99], 3.4 SSE NEWVILLE CENTER [41.27, -84.81]

05/21/10 21:31 EST	50K	Flash Flood (due to Heavy Rain)
05/22/10 03:00 EST	0	Source: Trained Spotter

Trained spotters reported several flooded roads across eastern portions of the county. Water was as high as the bumpers on vehicles, with water approaching a few homes and washing out road shoulders.

A upper level impulse, abundant moisture and a south-southwesterly flow combined to allow for the development of thunderstorms. While several produced small hail and locally gusty winds, the main effect was torrential rainfall, on the order of 1 to 3 inches per hour. This resulted in flash flooding in several locations across western Defiance county.

LAGRANGE COUNTY --- 2.8 S SEYBERTS [41.66, -85.51]

05/31/10 08:45 EST	0	Thunderstorm Wind (EG 55 kt)
05/31/10 08:46 EST	0	Source: Emergency Manager

Emergency management officials reported trees and power lines down at County Road 450 North and 100 West, as well as in the city of Topeka.

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
KOSCIUSKO COUNTY --- CLAYPOOL [41.13, -85.88]				
	05/31/10 14:10 EST		0	Thunderstorm Wind (EG 55 kt)
	05/31/10 14:11 EST		0	Source: Broadcast Media

Local media reported a tree was uprooted and fell onto a building. Numerous tree limbs were also blown down. No further information was available on the building damage.

KOSCIUSKO COUNTY --- 2.9 SE WARSAW [41.20, -85.79]				
	05/31/10 14:36 EST		0	Thunderstorm Wind (EG 50 kt)
	05/31/10 14:37 EST		0	Source: NWS Employee

An off-duty NWS employee reported a tree branch down onto a power line.

A cold front moved across the region during the day. Overall instability was limited but wind fields were sufficiently strong to allow for isolated wind damage during storm collapses.

MICHIGAN, Extreme Southwest

BERRIEN COUNTY --- HARBERT [41.87, -86.63]				
	05/07/10 07:56 EST		0	Hail (0.88 in)
	05/07/10 07:57 EST		0	Source: Law Enforcement

A weakening complex of thunderstorms moved along a warm front located across the area during the morning hours. Several reports of small hail were received with one reaching severe criteria.

BRANCH COUNTY --- 0.7 S COLDWATER [41.94, -85.00]				
	05/07/10 16:53 EST		0	Thunderstorm Wind (EG 52 kt)
	05/07/10 16:54 EST		0	Source: Emergency Manager

Emergency management officials reported numerous tree branches down.

BRANCH COUNTY --- 0.7 N QUINCY [41.94, -84.88]				
	05/07/10 17:16 EST		10K	Thunderstorm Wind (EG 70 kt)
	05/07/10 17:17 EST		0	Source: Emergency Manager

Emergency management officials reported a tree down in the Quincy area. In addition, a transformer and power lines were down as a result of a snapped utility pole. Damage is estimated at around \$10,000.

The same warm front that was the focus for the dying morning convection once again allowed for the development of elevated storms across far southern lower Michigan. While the majority of the storms remained below severe limits, one storm did produce damaging winds.

HILLSDALE COUNTY --- 4.0 WNW LITCHFIELD [42.07, -84.82], 1.6 NNW MOSCOW [42.07, -84.52], 1.9 SSE AUSTIN [41.71, -84.69], 1.9 SW MONTGOMERY [41.76, -84.82]				
	05/21/10 16:44 EST		0	Flash Flood (due to Heavy Rain)
	05/21/10 18:45 EST		0	Source: Emergency Manager

Emergency management officials reported numerous roads flooded across the western part of the county, including near the intersection of US 12 and Sand Lake Road. One to three inches of rain fell across portions of this area in roughly two hours.

A upper level impulse, abundant moisture and a south-southwesterly flow combined to allow for the development of thunderstorms. While several produced small hail and locally gusty winds, the main effect was torrential rainfall, on the order of 1 to 3 inches per hour. This resulted in flash flooding in several locations across western Defiance county.

BRANCH COUNTY --- 1.2 NW LACKWOOD [41.89, -85.07]				
	05/31/10 09:35 EST		0	Thunderstorm Wind (EG 50 kt)
	05/31/10 09:36 EST		0	Source: Emergency Manager

Emergency management officials reported a five inch diameter branch was blown down onto Snow Prairie Road, just north of Central.

BRANCH COUNTY --- 0.9 NE HODUNK [42.03, -85.04]				
--	--	--	--	--

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	05/31/10 09:53 EST		0	Thunderstorm Wind (EG 55 kt)
	05/31/10 09:54 EST		0	Source: Emergency Manager

Emergency management officials reported a 12 inch diameter willow tree was blown down onto Girard Road.

BERRIEN COUNTY --- NEW TROY [41.88, -86.55]

	05/31/10 12:10 EST		0	Thunderstorm Wind (EG 55 kt)
	05/31/10 12:11 EST		0	Source: Law Enforcement

Law enforcement officials reported numerous trees and power lines down from Chikaming to New Troy.

BERRIEN COUNTY --- 0.8 SW BERRIEN SPGS [41.94, -86.34]

	05/31/10 12:20 EST		0	Thunderstorm Wind (EG 55 kt)
	05/31/10 12:21 EST		0	Source: Law Enforcement

Law enforcement officials reported trees and power lines down on Snow Road near Berrien Springs.

BRANCH COUNTY --- 0.9 SW BRONSON ARPT [41.87, -85.19]

	05/31/10 15:20 EST		0	Thunderstorm Wind (EG 55 kt)
	05/31/10 15:21 EST		0	Source: Emergency Manager

Emergency management officials reported a large tree down onto a house in Bronson. Other trees were reported down across the county, some onto roadways.

A cold front moved across the region during the day. Overall instability was limited but wind fields were sufficiently strong to allow for isolated wind damage during storm collapses.

OHIO, Northwest

PAULDING COUNTY --- 0.9 NW PAULDING [41.14, -84.58]

	05/05/10 16:34 EST		0	Hail (0.75 in)
	05/05/10 16:35 EST		0	Source: Emergency Manager

ALLEN COUNTY --- 0.9 NW DELPHOS [40.84, -84.34]

	05/05/10 18:14 EST		0	Hail (1.00 in)
	05/05/10 18:15 EST		0	Source: Trained Spotter

ALLEN COUNTY --- 0.9 NW DELPHOS [40.84, -84.34]

	05/05/10 18:16 EST		0	Hail (0.88 in)
	05/05/10 18:17 EST		0	Source: Trained Spotter

A trained spotter reported penny to nickel size hail.

ALLEN COUNTY --- 1.5 NNW GOMER [40.85, -84.19]

	05/05/10 18:20 EST		0	Hail (1.00 in)
	05/05/10 18:21 EST		0	Source: Trained Spotter

PUTNAM COUNTY --- 0.5 W COLUMBUS GROVE [40.92, -84.06]

	05/05/10 18:32 EST		0	Hail (0.75 in)
	05/05/10 18:33 EST		0	Source: Trained Spotter

FULTON COUNTY --- 1.5 SSW WAUSEON [41.53, -84.14]

	05/05/10 18:56 EST		0	Hail (1.75 in)
	05/05/10 18:57 EST		0	Source: Trained Spotter

FULTON COUNTY --- 0.9 SW SWANTON [41.59, -83.89]

	05/05/10 19:05 EST		0	Hail (1.00 in)
	05/05/10 19:06 EST		0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

Convergence along a cold front, combined with moderate shear and weak instability, allowed for the development of numerous thunderstorms. The primary threat from the storms was hail up to the size of golf balls.

PAULDING COUNTY --- 1.3 ENE ARTHUR [41.21, -84.33]

	05/07/10 17:49 EST	0		Hail (1.00 in)
	05/07/10 17:50 EST	0		Source: NWS Employee

HENRY COUNTY --- 2.2 ENE NEW BAVARIA [41.21, -84.13]

	05/07/10 17:58 EST	0		Hail (2.50 in)
	05/07/10 17:59 EST	0		Source: Trained Spotter

Trained spotters reported tennis ball size hail, as well as estimated wind gusts up to 75 mph.

HENRY COUNTY --- 2.5 WNW HAMLER [41.25, -84.07]

	05/07/10 17:58 EST	0		Hail (0.88 in)
	05/07/10 17:59 EST	0		Source: Amateur Radio

Amateur radio operators reported nickle size hail.

After a cold and rainy start to the day, low pressure tracked towards the area, reaching Defiance, Ohio early Friday evening. Strong shear and moderate instability was in place across the area, allowing for two supercells to develop across far eastern Indiana and track northeast into Ohio. Wind damage was reported in several counties in northwestern Ohio.

VAN WERT COUNTY --- 2.1 SE MIDDLE PT [40.83, -84.40], 3.7 ESE MIDDLE PT [40.84, -84.36]

	05/14/10 00:47 EST	0		Tornado (EF1, L: 2.10 mi , W: 150 yd)
	05/14/10 00:49 EST	0		Source: Emergency Manager

A swath of damage roughly 5 miles long was found from southwest of Delphos, northeast to just northeast of Delphos. The tornado touched down on Bocky Road, roughly a half mile south of State Route 697. Several oak trees were snapped or uprooted (DI: TH DOD: 4), with some structural damage including a TV antenna tower being bent over, garage door blown in and a golf ball being pulled from the west side of a shed and then thrown into the east side of the same shed. As the circulation continued eastward, hardwood tree damage was observed similar to near the touchdown area. A 76 mph wind gust was recorded at a residence along the track of the tornado. Two large wooden play sets were rolled on the ground several yards with one being rolled from a northeast direction to a southeast direction around a garage. The circulation became less organized and eventually dissipated just outside of Delphos, near the intersections of State Road 697, and Delphos-Jennings Road. The circulation was on the ground for just over two miles with a maximum width of 150 yards. Maximum winds are estimated between 90 and 95 mph.

VAN WERT COUNTY --- 3.7 ESE MIDDLE PT [40.84, -84.36], 4.8 E MIDDLE PT [40.84, -84.34]

	05/14/10 00:49 EST	0		Thunderstorm Wind (EG 78 kt)
	05/14/10 00:51 EST	0		Source: Emergency Manager

A swath of damage roughly 5 miles long was found from southwest of Delphos, northeast to just northeast of Delphos. Evidence of a tornado has been provided in a separate entry. Straight line wind damage continued into the town of Delphos after the dissipation of the circulation. A large, west facing overhead door at the Unverferth Manufacturing Company was blown in with the winds exiting on the north side of the structure out another door. In addition, several stacks of grain hopper bins (4 high and weighing 1000 lbs each) that were not attached to any bases were either shifted or pushed over by the strong winds. As the wind continued into the west side of Delphos, trees were either snapped or uprooted with some additional overhead door damage noted in one building. The wind damage continued into Allen County, near the intersection of West First Street and South Main St. Winds are estimated to be 85 to 90 mph at the start of the damage path, decreasing to around 80 mph as it exits Van Wert County.

ALLEN COUNTY --- 1.0 NNW DELPHOS [40.84, -84.34], 1.8 NE DELPHOS [40.85, -84.30]

	05/14/10 00:51 EST	0		Thunderstorm Wind (EG 70 kt)
	05/14/10 00:53 EST	0		Source: Emergency Manager

A swath of damage continued across the town of Delphos from Van Wert County into Allen County, near the intersection of West First Street and South Main Street. Tree damage was noted along the way, with minor clay roof pieces damaged on a McDonald's restaurant. As the wind exited the town, a home in the 9000 block of Lincoln Highway had the west side of its roof blown off. The strong wind then crossed US 30, flipping a semi and continuing east until severe damage occurred to a pole barn where the roof and debris was thrown around one tenth of a mile. No damage was observed after this point. Wind speeds are estimated in the 75 to 80 mph range.

A cold front was moving through northeastern Indiana and northwestern Ohio during the late evening hours of May 13th into the early morning hours of May 14th. Despite the time of day, a modest amount of instability (around 500 j/kg Mixed Layer CAPE) was in place along the front. Two rounds of storms moved through northwestern Ohio. The initial line did not produce any severe weather. The second line did produce severe weather across portions of Van Wert county into western parts of Allen county, including a EF1 tornado in the area of Delphos.

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
DEFIANCE COUNTY --- 4.2 SW HICKSVILLE [41.25, -84.80], 8.3 NNW HICKSVILLE [41.41, -84.80], 1.4 NE NEY [41.39, -84.50], 1.8 E MARK CENTER [41.28, -84.59]				
	05/21/10 21:40 EST		0.25M	Flash Flood (due to Heavy Rain)
	05/22/10 03:00 EST		0	Source: Newspaper
<p>Local media reported flash flooding across portions of far western Defiance County, mainly from Hicksville to Ney. Water entered the first floor of the Hicksville Community Memorial Hospital, forcing the evacuation of a few patients, as well as power being shut off to the laboratory and radiology departments. County officials reported State Roads 49, 37 and 2 were closed near the Indiana and Ohio state line. The village of Ney sustained heavy flooding as well as Lick Creek flowed over its banks flooding the Ney Community Park, parts of the Jewell Grain facility. Seeds and chemicals had to be moved from the grain facility, with sandbagging being done to stop the flooding. A parked car was submerged under flood waters behind the Ney Oil Company. Standing water persisted into much of the next day. However, evacuations ended within a few hours of the event ending.</p>				
WILLIAMS COUNTY --- 2.7 WNW COONEY [41.67, -84.78], 2.1 WNW ALVORDTON [41.68, -84.47], 3.3 SSE BRYAN WLLMS CO ARPT [41.43, -84.47], 2.6 WNW EDGERTON [41.46, -84.80]				
	05/21/10 21:50 EST		0	Flash Flood (due to Heavy Rain)
	05/22/10 03:00 EST		0	Source: Newspaper
<p>Local officials reported a few cars going off the roadway into ditches due to high water.</p>				
PAULDING COUNTY --- 6.1 NW ANTWERP [41.25, -84.80], 4.0 WSW ANTWERP [41.16, -84.80], 1.5 NW ANTWERP [41.19, -84.75], 4.8 N ANTWERP [41.25, -84.74]				
	05/21/10 21:52 EST		0	Flash Flood (due to Heavy Rain)
	05/22/10 03:00 EST		0	Source: Emergency Manager
<p>Emergency management officials reported numerous roads impassable in the extreme northwestern portion. This included State-Line and County-Line Roads, as well as other county roads near the town of Antwerp.</p> <p>An upper level impulse, abundant moisture and a south-southwesterly flow combined to allow for the development of thunderstorms. While several produced small hail and locally gusty winds, the main effect was torrential rainfall, on the order of 1 to 3 inches per hour. This resulted in flash flooding in several locations across western Defiance County.</p>				
ALLEN COUNTY --- 2.3 NNE LOST CREEK ADDITION [40.78, -84.05]				
	05/27/10 13:30 EST		0	Hail (1.00 in)
	05/27/10 13:31 EST		0	Source: Trained Spotter
PUTNAM COUNTY --- 0.9 WSW GLANDORF [41.03, -84.10], 3.0 NNW GILBOA [41.06, -83.94], 2.1 SE GILBOA [41.00, -83.89], 3.1 NNW COLUMBUS GROVE [40.96, -84.06]				
	05/27/10 15:45 EST		0	Flash Flood (due to Heavy Rain)
	05/27/10 19:30 EST		0	Source: Law Enforcement
<p>Four to six inches of rain fell across portions of central Putnam county, resulting in road closures from flowing water, including County Road 5-H and US 224.</p>				
VAN WERT COUNTY --- 1.1 SW WILLSHIRE OSBORN ARP [40.72, -84.79], 1.0 E VAN WERT CIRCLE S AR [40.82, -84.51], 1.6 NW ELGIN [40.75, -84.49], 3.8 S WILLSHIRE OSBORN ARP [40.68, -84.78]				
	05/27/10 19:30 EST		0	Flash Flood (due to Heavy Rain)
	05/28/10 03:15 EST		0	Source: Emergency Manager
<p>Four to six inches of rain fell in a short period of time across southwestern Van Wert county. Water flowing over several roads and bridges resulted in closures in and around Ohio City, Glenmore and Schumm. Rainfall ended across the area during the late evening hours of the 27th, but the road closures continued for several more hours before subsiding.</p> <p>A slow moving cold front interacted with moderate instability, abundant moisture and a weak flow to allow for thunderstorm development. While the majority of the storms were not overly strong, the slow movement and efficient precipitation production allowed for training of the activity and flash flooding in some areas of northwestern Ohio. Radar estimates of 4 to 6 inches were noted.</p>				
DEFIANCE COUNTY --- 1.6 W DEFIANCE MEML ARPT [41.33, -84.46], 1.5 W AYERSVILLE [41.23, -84.31], 8.0 E JEWELL [41.30, -84.13], 7.2 NNE JEWELL [41.41, -84.22]				
	05/31/10 17:01 EST		0	Flash Flood (due to Heavy Rain)
	05/31/10 18:45 EST		0	Source: Law Enforcement
<p>Law enforcement officials reported several roads with flowing water over them, resulting in road closures.</p>				

Storm Data and Unusual Weather Phenomena - May 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

A cold front moved across the region during the day. Overall instability was limited but wind fields were sufficiently strong to allow for isolated wind damage during storm collapses.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
CASS COUNTY --- 0.9 SW NEW WAVERLY [40.76, -86.19]				
	06/04/10 19:25 EST		0.13M	Thunderstorm Wind (EG 60 kt)
	06/04/10 19:26 EST		0	Source: Emergency Manager
<p>A large tree fell onto a house north of New Waverly. The house was considered to be a total loss as the tree penetrated the roof and buckled three of the four outside walls. Damage to the structure alone was estimated at \$125,000. Several other trees were blown down in and around New Waverly, with at least one other tree making limited contact with a house.</p>				
MIAMI COUNTY --- 2.1 N PEORIA [40.75, -85.97]				
	06/04/10 19:36 EST		0	Thunderstorm Wind (EG 60 kt)
	06/04/10 19:37 EST		0	Source: Emergency Manager
<p>Emergency management officials reported State Road 125, five miles east of Peru, was close due to power lines down onto the road. Several power poles were also down on Business 31 south, resulting in road closure.</p>				
MIAMI COUNTY --- PERU [40.75, -86.07]				
	06/04/10 19:36 EST		0	Thunderstorm Wind (EG 60 kt)
	06/04/10 19:37 EST		0	Source: Emergency Manager
<p>Emergency management officials reported numerous trees and power lines down in Peru.</p>				
WHITE COUNTY --- 1.0 NE WOLCOTT [40.78, -87.02], 1.1 NE WOLCOTT [40.78, -87.01]				
	06/04/10 19:55 EST		0	Tornado (EF0, L: 0.09 mi , W: 20 yd)
	06/04/10 19:56 EST		0	Source: Broadcast Media
<p>Local media relayed a report of a tornado being observed northeast of Wolcott by a trained spotter. The spotter subsequently sent a photograph and video of the tornado. The spotter stated that it touched down in an open field and was on the ground for less than a minute, causing no appreciable damage. The width of the circulation has been estimated from a photograph of the debris cloud. As no damage was reported, a intensity of EF0 with winds of 65 mph will be assigned.</p>				
WHITE COUNTY --- 0.5 W MONON [40.87, -86.88]				
	06/04/10 20:00 EST		0	Thunderstorm Wind (EG 52 kt)
	06/04/10 20:01 EST		0	Source: Broadcast Media
<p>Local media reported a viewer measuring a 60 mph wind gust.</p>				
GRANT COUNTY --- 1.7 ENE JALAPA [40.64, -85.72]				
	06/04/10 20:05 EST		0	Thunderstorm Wind (EG 50 kt)
	06/04/10 20:06 EST		0	Source: Trained Spotter
<p>A trained spotter recorded a 58 mph gust on State Road 15 at the Grant and Wabash county line.</p>				
WABASH COUNTY --- LA FONTAINE [40.67, -85.72]				
	06/04/10 20:05 EST		0	Hail (0.88 in)
	06/04/10 20:06 EST		0	Source: Emergency Manager
WABASH COUNTY --- LA FONTAINE [40.67, -85.72]				
	06/04/10 20:05 EST		0	Thunderstorm Wind (EG 60 kt)
	06/04/10 20:06 EST		0	Source: Emergency Manager
<p>Emergency management officials reported a few trees blown down.</p>				
GRANT COUNTY --- 1.7 NE LANDESS [40.64, -85.53]				
	06/04/10 20:26 EST		0	Thunderstorm Wind (EG 65 kt)
	06/04/10 20:27 EST		0	Source: Emergency Manager
<p>Emergency management officials reported a semi was rolled over on Interstate 69, near mile marker 70.</p>				
JAY COUNTY --- BALBEC [40.53, -85.15]				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/04/10 20:58 EST		0	Thunderstorm Wind (EG 56 kt)
	06/04/10 20:59 EST		0	Source: Trained Spotter
A trained spotter estimated 65 mph winds near Balbec.				
A stable air mass was in place across much of the area in the wake of a line of storms from earlier in the day. Increasing instability and an approaching upper level wave set the stage for thunderstorms to develop. A few of these took on super-cell characteristics across Cass and White counties. A storm spotter photographed a tornado northeast of Wolcott, Indiana which developed over an open field.				
<hr/>				
LAGRANGE COUNTY --- 1.5 SSW SCOTT [41.73, -85.56]				
	06/05/10 23:40 EST		0	Thunderstorm Wind (EG 60 kt)
	06/05/10 23:41 EST		0	Source: Emergency Manager
Emergency management officials reported trees and tree limbs down across the northwestern parts of the county.				
<hr/>				
STEUBEN COUNTY --- ORLAND [41.73, -85.17]				
	06/05/10 23:48 EST		0	Thunderstorm Wind (EG 60 kt)
	06/05/10 23:49 EST		0	Source: Emergency Manager
Emergency management officials reported a large tree down at County Road 900 West and State Route 120.				
<hr/>				
STEUBEN COUNTY --- ORLAND [41.73, -85.17]				
	06/06/10 00:00 EST		0	Thunderstorm Wind (EG 60 kt)
	06/06/10 00:01 EST		0	Source: Emergency Manager
Emergency management officials reported trees down in the area, with one onto a house.				
<hr/>				
WHITE COUNTY --- 2.2 ENE CHALMERS [40.69, -86.81], 3.4 SSE WHITE CO ARPT [40.68, -86.75]				
	06/06/10 00:03 EST		0.20M	Tornado (EF0, L: 3.64 mi , W: 150 yd)
	06/06/10 00:05 EST		0	Source: NWS Storm Survey
A survey of damage in eastern White county revealed indications of a weak circulation touching down just south of County Road East 450 South, on County Road South 300 East. The circulation passed over a farm where tree damage occurred as it moved east. Skylights from a shed were blown towards the east with one being found behind a house. Damage was done to roofing of a new pole barn and several items were thrown into a field towards a grove of trees. The tornado began to intensify somewhat but remained over open fields until reaching the Stone Drive area on the west side of Lake Freeman where numerous trees (DI: TS, DOD: 3) were uprooted with some structure damage. The tornado then exited White County over Lake Freeman into Carroll County (see Storm Data for Indiana, Central). Maximum winds are estimated to range between 80 and 85 mph. Damage is estimated at \$200,000 from a combination of cleanup of trees and structure damage.				
<hr/>				
STEUBEN COUNTY --- FREMONT [41.73, -84.93]				
	06/06/10 00:14 EST		0	Thunderstorm Wind (EG 60 kt)
	06/06/10 00:15 EST		0	Source: Emergency Manager
Emergency management officials reported trees down in the Fremont area, one of which fell onto a house. No further damage details were provided.				
<hr/>				
CASS COUNTY --- 3.0 WNW DEACON [40.64, -86.37], 0.6 ENE DEACON [40.63, -86.31]				
	06/06/10 00:29 EST		0.13M	Tornado (EF1, L: 3.40 mi , W: 150 yd)
	06/06/10 00:35 EST	1	0	Source: NWS Storm Survey
This tornado developed in eastern Carroll County, Indiana, roughly four miles east-southeast of Burrows (see Storm Data for Indiana, Central) and moved into Cass County. The tornado initially was over open fields with its first impact at a residence where the western half of the roof was ripped off and the eastern half picked up and then dropped back down. Two residents were attempting to take shelter when the tornado hit. A gentleman suffered minor injuries (indirect) falling down a stairway into a basement seeking shelter. The tornado continued east-southeast over mainly open field again until it encountered a more populated area of structures along E County Road 900 S, east of S County Road 300 E. Several trees were damaged or uprooted in the area with the western half of a business being destroyed by the circulation. The circulation moved on to strike and roll a mobile home, destroying it (DI: SWMH DOD: 7). The second injury (direct) in the area occurred here where the resident was rolled with the mobile home. The female resident escaped with minor injuries. The circulation continued on causing some structure and tree damage before dissipating. The maximum width is estimated at 150 yards with a maximum wind speed estimated around 100 mph.				
<hr/>				
CASS COUNTY --- 2.3 NE LINCOLN [40.64, -86.18], 3.1 ENE LINCOLN [40.64, -86.17]				
	06/06/10 00:41 EST		0.13M	Tornado (EF2, L: 0.99 mi , W: 175 yd)
	06/06/10 00:42 EST	1	0	Source: NWS Storm Survey

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<p>After a brief break, the supercell produced one more circulation which touched down just west of the Cass/Miami county line along South County Road 1000 East. Several yards in the area had trees uprooted and limbs down (DI: TH, DOD: 4). A few residences were impacted by the trees, causing mainly roof or window damage. The circulation then went into a dense grove of trees with the circulation briefly weakening before coming back out near the Grissom Air Reserve Base. A 200 foot section of security fence on the southwest corner of the base was blown down into the adjacent roadway and portions of the nearby field before crossing into Miami County. An Automated Weather Observation System recorded a 114 mph wind gust as the circulation passed through.</p>				
<hr/>				
MIAMI COUNTY --- 1.1 SW (GUS)GRISSOM AFB PER [40.64, -86.17], 1.4 WSW MC GRAWSVILLE [40.63, -86.05]				
	06/06/10 00:42 EST		0.75M	Tornado (EF3, L: 6.46 mi , W: 250 yd)
	06/06/10 00:51 EST		0	Source: NWS Storm Survey

The tornado that entered this county exited the Grissom Air Reserve base on the Cass/Miami county line and continued east-southeast, crossing a small area of trees where signs of slight debarking was noted (DI: TH DOD: 5). The tornado continued on along to the 3000 block of County Road 900 South where the most substantial damage occurred to a one and one half story home. Only a few kitchen walls remains of the structure (DI: FR12, DOD 8) with one resident in the kitchen and one in the basement. Two other residences suffered extensive damage but remained intact. The tornado crossed US 31 and continued for a few more miles, causing some additional tree and structure damage including several buildings at a hog farm being destroyed. The tornado eventually dissipated east of Strawpike Road, north of East 1000 South in a field. A local newspaper article reported that a check that was originally located at the destroyed home was found nearly 50 miles away in Wells County in perfect condition. Total damage along the track of the tornado is estimated at \$750,000.

<hr/>				
STUBEN COUNTY --- 0.5 E HAMILTON [41.53, -84.91]				
	06/06/10 00:50 EST		0	Thunderstorm Wind (EG 55 kt)
	06/06/10 00:51 EST		0	Source: Trained Spotter

A trained spotter reported tree limbs were blown down.

A supercell developed ahead of a cold front in Illinois and tracked east-southeast through Benton county into White county. This storm produced three tornadoes across Indiana, an EF0 in Eastern White County (which moved into Carroll County), an EF1 which started in eastern Carroll County and moved into Cass County, and a third, a stronger EF3 which formed near the Grissom Air Force base in Cass County and moved rapidly east into Miami County. Despite the tornadoes occurring during the overnight hours, no fatalities occurred.

<hr/>				
ADAMS COUNTY --- 0.6 SE COPPESS CORNER [40.74, -84.94]				
	06/08/10 23:10 EST		50K	Lightning
	06/08/10 23:11 EST		0	Source: Newspaper

A local newspaper reported that lightning struck a two-car garage, causing a fire. The fire heavily damaged the building as well as two cars and other items inside it. Damage is estimated at \$50,000.

Thunderstorms moved through during the early morning hours of the 9th. A lightning strike appears to have started a garage fire, causing major damage.

<hr/>				
WHITLEY COUNTY --- 1.2 W COLUMBIA CITY [41.17, -85.50], 0.4 NE COLUMBIA CITY [41.17, -85.47], 2.1 SSE COLUMBIA CITY [41.14, -85.47], 2.4 SSW COLUMBIA CITY [41.14, -85.50]				
	06/11/10 08:05 EST		0.10M	Flash Flood (due to Heavy Rain)
	06/11/10 09:10 EST		0	Source: Emergency Manager

Torrential rain, totaling nearly five inches in an hour, fell in and around Columbia City, resulting in widespread flash flooding across the city. Numerous roadways were periodically covered with flowing water, with some closures. Portions of State Routes 9 and 205 had nearly two feet of flowing water in spots. Several homes suffered minor basement flooding. Damage is estimated at \$100,000.

Several tall elevated thunderstorms developed along a theta-e gradient on the morning of June 11. One such storm developed over southern Whitley County and supported the development of a deeper cold pool. As the low level jet impinged on the southwestern flank of the outflow bubble, prolonged cell training occurred as a cold pool feedback process resulted. Radar estimated and Flash Flood Monitoring and Predication (FFMP) totals confirmed heavy rainfall in a short duration and prompted the issuance of a Flash Flood Warning (FFW). Flood water to 2 feet deep covered many roads including some main roads. Basements were flooded, including the High School. Rain gauge measurements of up to 5.40 inches in an hour were reported.

<hr/>				
WHITE COUNTY --- 1.1 W BROOKSTON [40.60, -86.87]				
	06/12/10 13:08 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 13:09 EST		0	Source: Broadcast Media

Local television stations reported trees and tree limbs down with some minor street flooding.

<hr/>				
STARKE COUNTY --- NORTH JUDSON [41.22, -86.78]				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/12/10 16:18 CST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 16:19 CST		0	Source: Law Enforcement

Law enforcement officials reported trees down in North Judson and nearby San Pierre.

MARSHALL COUNTY --- 0.8 SW PLYMOUTH [41.34, -86.33]

	06/12/10 17:48 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 17:49 EST		0	Source: Law Enforcement

Law enforcement officials reported large trees down on the west side of Plymouth.

KOSCIUSKO COUNTY --- 1.5 NNE OSWEGO [41.34, -85.77]

	06/12/10 18:27 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 18:28 EST		0	Source: NWS Employee

An off duty NWS employee reported trees and power lines down at the Lake Tippecanoe Country Club.

KOSCIUSKO COUNTY --- 1.8 ENE OSWEGO [41.33, -85.75]

	06/12/10 18:27 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 18:28 EST		0	Source: NWS Employee

An off duty NWS employee reported a two foot diameter maple tree was down across County Road 650 North. Power lines were also down in the area.

KOSCIUSKO COUNTY --- 2.5 ESE WARSAW [41.21, -85.79]

	06/12/10 18:34 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 18:35 EST		0	Source: NWS Employee

An off duty NWS employee reported a ten inch diameter branch down southeast of Warsaw.

MIAMI COUNTY --- CONVERSE [40.58, -85.87]

	06/12/10 18:35 EST		0	Thunderstorm Wind (MG 52 kt)
	06/12/10 18:36 EST		0	Source: Trained Spotter

A trained spotter reported measured sustained winds of 45 mph with gusts as high as 60 mph.

ELKHART COUNTY --- 1.4 N (GSH)GOSHEN ARPT [41.55, -85.80]

	06/12/10 18:36 EST		0	Thunderstorm Wind (MG 52 kt)
	06/12/10 18:37 EST		0	Source: Amateur Radio

Amateur radio operators recorded a 60 mph wind gust with the storm.

HUNTINGTON COUNTY --- 1.4 S BIPPUS [40.93, -85.62]

	06/12/10 18:41 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 18:42 EST		0	Source: Emergency Manager

Emergency management officials reported a ten inch diameter tree was blown down by the winds, with signs of some weakening prior to the storm from animals.

HUNTINGTON COUNTY --- 0.7 S ROANOKE [40.96, -85.37]

	06/12/10 19:05 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 19:06 EST		0	Source: Trained Spotter

A trained spotter reported a eight inch diameter tree down at the intersection of County Road 900 North and US 24.

ALLEN COUNTY --- 0.7 N FT WAYNE [41.08, -85.13]

	06/12/10 19:22 EST		0	Thunderstorm Wind (EG 55 kt)
	06/12/10 19:23 EST		0	Source: Law Enforcement

Law enforcement officials reported trees were down across roads in the area, as well as some blown transformers.

An east-west boundary and strong mid level wind flow combined with several left-over disturbances from convection to the west, to allow for thunderstorm develop. Some of these storms became severe with damaging winds dominating the reports.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LA PORTE COUNTY --- MICHIGAN CITY [41.72, -86.90]				
	06/18/10 17:08 CST	0		Hail (1.00 in)
	06/18/10 17:09 CST	0		Source: Trained Spotter
One inch hail was accompanied by measured 70-80 mph wind gusts. Trees downed.				
LA PORTE COUNTY --- LA PORTE [41.60, -86.72]				
	06/18/10 17:11 CST	0		Thunderstorm Wind (MG 56 kt)
	06/18/10 17:12 CST	0		Source: Trained Spotter
LA PORTE COUNTY --- HESSTON [41.73, -86.63]				
	06/18/10 17:18 CST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 17:19 CST	0		Source: Trained Spotter
A trained spotter reported several large tree limbs down.				
LA PORTE COUNTY --- 5.0 NW LA PORTE [41.65, -86.79]				
	06/18/10 17:20 CST	0		Thunderstorm Wind (MG 78 kt)
	06/18/10 17:21 CST	0		Source: Trained Spotter
LAGRANGE COUNTY --- LAGRANGE [41.65, -85.42]				
	06/18/10 17:20 EST	0		Thunderstorm Wind (EG 65 kt)
	06/18/10 17:21 EST	0		Source: Emergency Manager
Emergency management officials reported numerous trees and power lines down, along with a few power poles snapped. A few trees were reported to have fallen on cars and houses, but no specific damage or details were provided.				
LA PORTE COUNTY --- ROLLING PRAIRIE [41.67, -86.62]				
	06/18/10 17:22 CST	0		Thunderstorm Wind (EG 65 kt)
	06/18/10 17:23 CST	0		Source: Law Enforcement
A roof was ripped off a house.				
STARKE COUNTY --- 5.0 W GROVERTOWN [41.37, -86.62]				
	06/18/10 17:30 CST	0		Thunderstorm Wind (EG 60 kt)
	06/18/10 17:31 CST	0		Source: Trained Spotter
Multiple reports of trees down on houses and corn flattened. A large tree was also blocking a roadway.				
STARKE COUNTY --- 2.0 ESE BREMS [41.32, -86.66]				
	06/18/10 17:32 CST	0		Thunderstorm Wind (MG 51 kt)
	06/18/10 17:33 CST	0		Source: AWOS
A 59 mph gust was measured at Knox County AWOS.				
ST. JOSEPH COUNTY --- 4.0 NW SOUTH BEND [41.71, -86.30]				
	06/18/10 17:36 EST	0		Thunderstorm Wind (MG 64 kt)
	06/18/10 17:37 EST	0		Source: ASOS
A 74 mph gust was measured by the South Bend Airport ASOS.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/18/10 17:40 EST	0		Thunderstorm Wind (EG 52 kt)
	06/18/10 17:41 EST	0		Source: Trained Spotter
A trained spotter estimated 60 mph winds with trees down in the area.				
MARSHALL COUNTY --- CULVER [41.22, -86.43]				
	06/18/10 17:41 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 17:42 EST	0		Source: Emergency Manager

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Emergency management officials reported trees and power lines reported down south of Culver.				
ST. JOSEPH COUNTY --- 1.0 ENE SOUTH BEND [41.68, -86.23]				
	06/18/10 17:42 EST	0		Thunderstorm Wind (EG 61 kt)
	06/18/10 17:43 EST	0		Source: Trained Spotter
A trained spotter estimated 70 mph wind gusts with several tree limbs down.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/18/10 17:43 EST	0		Thunderstorm Wind (MG 69 kt)
	06/18/10 17:44 EST	0		Source: Trained Spotter
LA PORTE COUNTY --- HESSTON [41.73, -86.63]				
	06/18/10 17:49 CST	0		Thunderstorm Wind (EG 60 kt)
	06/18/10 17:50 CST	0		Source: Trained Spotter
A trained spotter reported a tree fell onto a barn, causing an undetermined amount of damage.				
ST. JOSEPH COUNTY --- 1.0 NE SOUTH BEND [41.68, -86.24]				
	06/18/10 17:54 EST	0		Thunderstorm Wind (EG 60 kt)
	06/18/10 17:55 EST	0		Source: Trained Spotter
Numerous reports of trees down.				
PULASKI COUNTY --- MONTEREY [41.15, -86.50]				
	06/18/10 17:57 CST	0		Thunderstorm Wind (EG 61 kt)
	06/18/10 17:58 CST	0		Source: Trained Spotter
Trained spotter estimated 70 mph winds with nickel sized hail.				
MARSHALL COUNTY --- PLYMOUTH [41.35, -86.32]				
	06/18/10 18:00 EST	0		Thunderstorm Wind (EG 60 kt)
	06/18/10 18:00 EST	0		Source: Emergency Manager
Emergency manager reports trees and power lines down across the entire county.				
KOSCIUSKO COUNTY --- 1.0 N MILFORD [41.43, -85.85]				
	06/18/10 18:10 EST	0		Thunderstorm Wind (EG 65 kt)
	06/18/10 18:11 EST	0		Source: Trained Spotter
A trained spotter reported multiple trees and power lines were down. At least one power pole was snapped.				
CASS COUNTY --- ROYAL CENTER [40.87, -86.50]				
	06/18/10 18:11 EST	0		Thunderstorm Wind (EG 52 kt)
	06/18/10 18:12 EST	0		Source: Emergency Manager
Cass County EM reports an estimated wind gust of 60 mph.				
ELKHART COUNTY --- 4.0 SE GOSHEN [41.54, -85.78]				
	06/18/10 18:12 EST	0		Thunderstorm Wind (MG 52 kt)
	06/18/10 18:13 EST	0		Source: ASOS
Peak wind gust of 52 knots measured at Goshen ASOS.				
ST. JOSEPH COUNTY --- 2.0 SE MISHAWAKA [41.65, -86.14]				
	06/18/10 18:12 EST	0		Thunderstorm Wind (MG 59 kt)
	06/18/10 18:13 EST	0		Source: Trained Spotter
ELKHART COUNTY --- 2.0 N GOSHEN [41.61, -85.83]				
	06/18/10 18:18 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 18:19 EST	0		Source: Amateur Radio

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Four inch tree limbs across the road at intersection of CR 22 and Middlesburg Road.				
ELKHART COUNTY --- NEW PARIS [41.50, -85.83]				
	06/18/10 18:22 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:23 EST		0	Source: Amateur Radio
Tree fell on the road 1 mile north of US 6 on SR 15.				
NOBLE COUNTY --- 3.0 NW LIGONIER [41.50, -85.62]				
	06/18/10 18:23 EST		20K	Thunderstorm Wind (EG 60 kt)
	06/18/10 18:24 EST		0	Source: Emergency Manager
A roof was blown completely off of a dairy barn in the NW corner of the county. Power lines were also down.				
MIAMI COUNTY --- MEXICO [40.82, -86.12]				
	06/18/10 18:26 EST		0	Thunderstorm Wind (EG 50 kt)
	06/18/10 18:27 EST		0	Source: Emergency Manager
Emergency management officials reported tree limbs down.				
KOSCIUSKO COUNTY --- 1.4 N OSWEGO [41.34, -85.78]				
	06/18/10 18:27 EST		0	Hail (1.00 in)
	06/18/10 18:28 EST		0	Source: NWS Employee
One inch hail with 55 to 60 mph wind gusts.				
ST. JOSEPH COUNTY --- 0.7 N SOUTH BEND [41.68, -86.25]				
	06/18/10 18:34 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:35 EST		0	Source: Trained Spotter
Trees down on Notre Dame Avenue with widespread power outages in South Bend.				
MIAMI COUNTY --- PERU [40.75, -86.07]				
	06/18/10 18:35 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:36 EST		0	Source: Emergency Manager
Trees down on power lines.				
NOBLE COUNTY --- ALBION [41.40, -85.42]				
	06/18/10 18:37 EST		30K	Thunderstorm Wind (EG 65 kt)
	06/18/10 18:38 EST		0	Source: Emergency Manager
A commercial building on the north side of Courthouse Square sustained significant roof damage.				
ELKHART COUNTY --- GOSHEN [41.58, -85.83]				
	06/18/10 18:45 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:46 EST		0	Source: Trained Spotter
Multiple trees down with one 12 inch diameter tree snapped.				
ST. JOSEPH COUNTY --- 0.7 N SOUTH BEND [41.68, -86.25]				
	06/18/10 18:50 EST		0	Thunderstorm Wind (EG 65 kt)
	06/18/10 18:51 EST		0	Source: Broadcast Media
A roof was blown off a barn on Pine Road and numerous trees down.				
CASS COUNTY --- 0.5 W LOGANSPOUT [40.75, -86.36]				
	06/18/10 18:55 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 18:56 EST		0	Source: Emergency Manager
Trees downed throughout county with some flash flooding. Trees fell down onto two houses and one car.				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
HUNTINGTON COUNTY --- 1.6 N MT ETNA [40.77, -85.57]				
	06/18/10 18:56 EST	1	0	Thunderstorm Wind (EG 60 kt)
	06/18/10 18:57 EST		0	Source: Emergency Manager
A tree on CR 400 S and 600 W fell down and trapped a 62 year old man who was trying to make it back to his vehicle after fishing in the reservoir. He was pronounced dead shortly after arriving at Parkview Huntington Hospital.				
Direct Fatalities: M62OU				
ELKHART COUNTY --- 0.5 W ELKHART [41.68, -85.98]				
	06/18/10 19:00 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:01 EST		0	Source: Trained Spotter
A 24 inch diameter tree was down on 1700 block of S Main Street.				
GRANT COUNTY --- 0.7 N SWAYZEE [40.51, -85.83]				
	06/18/10 19:05 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:06 EST		0	Source: Trained Spotter
Trees and power lines down.				
MIAMI COUNTY --- 1.1 W NEAD [40.72, -86.15]				
	06/18/10 19:05 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:06 EST		0	Source: Emergency Manager
A large tree was down at 250 S and 400 W.				
GRANT COUNTY --- 0.9 SE SHADY HILLS [40.56, -85.66]				
	06/18/10 19:11 EST		0	Thunderstorm Wind (MG 52 kt)
	06/18/10 19:12 EST		0	Source: Trained Spotter
MIAMI COUNTY --- 0.7 S CHILI [40.86, -86.03]				
	06/18/10 19:12 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 19:13 EST		0	Source: Emergency Manager
Emergency management officials reported a tree was blown down onto power lines in the area.				
STEBEN COUNTY --- 0.5 E HAMILTON [41.53, -84.91]				
	06/18/10 19:12 EST		0	Thunderstorm Wind (MG 52 kt)
	06/18/10 19:13 EST		0	Source: Trained Spotter
FULTON COUNTY --- 0.5 W KEWANNA [41.02, -86.41]				
	06/18/10 19:13 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:14 EST		0	Source: Trained Spotter
Several vehicles damaged from fallen trees.				
MARSHALL COUNTY --- 0.5 E CULVER [41.22, -86.42]				
	06/18/10 19:14 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 19:15 EST		0	Source: Trained Spotter
Trees and power lines down.				
ALLEN COUNTY --- 0.5 E NEW HAVEN [41.07, -85.01]				
	06/18/10 19:18 EST		0	Thunderstorm Wind (MG 53 kt)
	06/18/10 19:19 EST		0	Source: Amateur Radio
NOBLE COUNTY --- ALBION [41.40, -85.42]				
	06/18/10 19:19 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:20 EST		0	Source: Emergency Manager

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Numerous reports of wind damage across the county with trees and power lines down.				
GRANT COUNTY --- MARION [40.55, -85.58]				
	06/18/10 19:21 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 19:22 EST		0	Source: Trained Spotter
Numerous power lines down.				
GRANT COUNTY --- 0.9 SE SHADY HILLS [40.56, -85.66]				
	06/18/10 19:22 EST		0	Thunderstorm Wind (MG 52 kt)
	06/18/10 19:23 EST		0	Source: Trained Spotter
ALLEN COUNTY --- 0.7 N FT WAYNE [41.08, -85.13]				
	06/18/10 19:32 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:33 EST		0	Source: Trained Spotter
Three to four trees snapped on N Allen County Line Road.				
ALLEN COUNTY --- 5.0 NW FT WAYNE [41.12, -85.20]				
	06/18/10 19:35 EST		10K	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:36 EST		0	Source: Amateur Radio
A partial roof was blown off the auto auction at U.S. 33 and Washington Center Road.				
WHITLEY COUNTY --- 0.9 SW COLUMBIA CITY [41.16, -85.49]				
	06/18/10 19:40 EST		0	Thunderstorm Wind (EG 65 kt)
	06/18/10 19:41 EST		0	Source: Emergency Manager
Emergency management officials reported several construction trailers were overturned at hospital construction site near the intersection of US 30 and 205.				
ALLEN COUNTY --- 0.7 N FT WAYNE [41.08, -85.13]				
	06/18/10 20:40 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 20:41 EST		0	Source: Emergency Manager
Numerous trees and power lines down. US 30 was closed due to power lines over the road at Business 30 and 300 W.				
WELLS COUNTY --- 2.1 S BLUFFTON [40.70, -85.17]				
	06/18/10 20:50 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 20:51 EST		0	Source: Newspaper
A local newspaper reported a tree was down and blocking the road on County Road 300 South, just east of Indiana 1.				
WELLS COUNTY --- 0.4 NNW BLUFFTON [40.74, -85.17]				
	06/18/10 21:00 EST		5K	Thunderstorm Wind (EG 55 kt)
	06/18/10 21:01 EST		0	Source: Newspaper
A large tree limb was reported down on Marion Street, just north of Central Avenue. The limb fell onto a power line, knocking out power to the area.				
A strong mid level trough and resultant increased wind field interacted with a stationary boundary and moderate instability. A long lived squall line developed across Illinois and moved east into northern Indiana. Numerous reports of trees, tree limbs and power lines were blown down with winds more than 70 mph at times.				
MIAMI COUNTY --- 0.7 S BUNKER HILL [40.66, -86.10], 1.0 SSW BENNETTS SWITCH [40.57, -86.13], 0.9 SE CONVERSE [40.57, -85.86], 5.6 NE AMBOY [40.66, -85.86]				
	06/21/10 08:02 EST		0	Flash Flood (due to Heavy Rain)
	06/21/10 12:04 EST		0	Source: Law Enforcement
Law enforcement officials reported numerous roads flooded with some closures as a result of flowing water from Bunker Hill to the county line. This was the result of one to three inches of rain falling over a short period.				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
CASS COUNTY --- 1.7 WNW YOUNG AMERICA [40.58, -86.38], 1.4 S LOGANSPOUT MUNI ARPT [40.70, -86.38], 3.6 SSW GEORGETOWN [40.70, -86.52], 1.7 WSW GEORGETOWN [40.74, -86.53], 2.6 NE ONWARD [40.73, -86.17], 1.1 E GALVESTON [40.58, -86.16]				
	06/21/10 10:30 EST		0	Flash Flood (due to Heavy Rain)
	06/21/10 12:03 EST		0	Source: Newspaper
<p>The local newspaper reported that flooding was observed across the southern part of Cass County. Water 6 to 8 inches deep was flowing over several roads and small creeks and streams went over their banks from several inches of rain on already saturated ground.</p> <p>A stationary boundary and abundant moisture allowed for thunderstorms to develop. The main threat was heavy rainfall from the stronger storms, which caused flooding in some areas.</p>				
DE KALB COUNTY --- BUTLER [41.43, -84.87]				
	06/22/10 00:37 EST		0	Thunderstorm Wind (EG 55 kt)
	06/22/10 00:38 EST		0	Source: Law Enforcement
<p>Law enforcement officials reported multiple trees and tree limbs down, with some blocking roadways.</p>				
WHITE COUNTY --- 3.9 WSW WOLCOTT [40.74, -87.09], 0.7 SSE WHITE CO ARPT [40.71, -86.77], 2.3 SSW SPRINGBORO [40.57, -86.78], 7.1 W BADGER GROVE [40.57, -87.08]				
	06/22/10 04:50 EST		0	Flash Flood (due to Heavy Rain)
	06/22/10 08:30 EST		0	Source: Law Enforcement
<p>Law enforcement officials reported water flowing over several roads in the southern portion of the county, forcing some closures. Even after the rain ended, the threat of flooding continued into the afternoon.</p> <p>Thunderstorms developed across much of northern Indiana during the overnight hours and persisted through the first part of the morning. Several inches of rain fell, causing flooding across southern portions of White County. In addition, isolated wind damage was noted in DeKalb County.</p>				
ALLEN COUNTY --- MONROEVILLE [40.97, -84.87]				
	06/23/10 13:03 EST		0	Thunderstorm Wind (EG 52 kt)
	06/23/10 13:04 EST		0	Source: Trained Spotter
<p>Trained spotter estimated wind gusts up to 60 mph.</p> <p>The remnants of a line of thunderstorms that moved through much of Lower Michigan sunk into northeastern Indiana, allowing for a few thunderstorms to affect the area.</p>				
LA PORTE COUNTY --- PINE LAKE [41.63, -86.73], ROLLING PRAIRIE [41.67, -86.62]				
	06/23/10 19:12 CST		0.75M	Thunderstorm Wind (EG 87 kt)
	06/23/10 19:30 CST		0	Source: NWS Storm Survey
<p>A survey of rather extensive damage was performed across the county. An intense microburst with a path of 2 to 3 miles and estimated 100 mph winds was surveyed from Pine Lake northeast through Rolling Prairie. The most concentrated damage occurred at the start of the event, where enumerable trees were uprooted and snapped with roof damage to numerous homes. A lack of overall structure damage, outside of falling trees, suggested that the high winds remained at tree top level, roughly 30 to 50 feet. No specific damage value was available, but given the magnitude of the damage, an estimate of \$750,000 will be assigned to the event.</p>				
LA PORTE COUNTY --- 2.0 E MICHIANA SHRS [41.75, -86.78]				
	06/23/10 19:13 CST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 19:14 CST		0	Source: Law Enforcement
<p>Law enforcement reports a semi-trailer blown over blocking part of Interstate 94.</p>				
LA PORTE COUNTY --- 2.0 SW LA PORTE [41.58, -86.75]				
	06/23/10 19:13 CST		0	Thunderstorm Wind (MG 62 kt)
	06/23/10 19:14 CST		0	Source: Trained Spotter
LA PORTE COUNTY --- 4.0 N LA PORTE [41.66, -86.72]				
	06/23/10 19:16 CST		0	Thunderstorm Wind (EG 78 kt)
	06/23/10 19:17 CST		0	Source: NWS Employee
<p>Off-duty NWS employee experienced sustained 60 mph winds for 10 minutes with gusts up to 90 mph.</p>				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
LA PORTE COUNTY --- 2.0 SW LA PORTE [41.58, -86.75]				
	06/23/10 19:29 CST		0	Thunderstorm Wind (MG 51 kt)
	06/23/10 19:30 CST		0	Source: Trained Spotter
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:41 EST		0	Thunderstorm Wind (MG 59 kt)
	06/23/10 19:42 EST		0	Source: Trained Spotter
ST. JOSEPH COUNTY --- 2.0 NW WOODLAND [41.59, -86.21]				
	06/23/10 19:46 EST		0	Thunderstorm Wind (EG 50 kt)
	06/23/10 19:47 EST		0	Source: Broadcast Media
Tree limbs down on road. Two cars swerved to avoid limbs and ended up in a ditch.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:46 EST		0	Thunderstorm Wind (EG 61 kt)
	06/23/10 19:47 EST		0	Source: Amateur Radio
Amateur radio operator reports estimated 60-70 mph gusts.				
ST. JOSEPH COUNTY --- 4.0 NW SOUTH BEND [41.71, -86.30]				
	06/23/10 19:48 EST		0	Thunderstorm Wind (MG 52 kt)
	06/23/10 19:49 EST		0	Source: ASOS
South Bend ASOS recorded a 52 knot gust.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:49 EST		0	Thunderstorm Wind (EG 60 kt)
	06/23/10 19:50 EST	2	0	Source: Broadcast Media
A tree fell down on house at 600 block of 28th St and 2 people were injured.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:50 EST		0	Thunderstorm Wind (EG 56 kt)
	06/23/10 19:51 EST		0	Source: Trained Spotter
Spotter estimated 65 mph gusts.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:50 EST		0	Thunderstorm Wind (MG 70 kt)
	06/23/10 19:51 EST		0	Source: Trained Spotter
ST. JOSEPH COUNTY --- 2.0 SE MISHAWAKA [41.65, -86.14]				
	06/23/10 19:52 EST		0	Thunderstorm Wind (MG 73 kt)
	06/23/10 19:53 EST		0	Source: Trained Spotter
Trained spotter measured 84 mph gusts. Large tree branches were downed and lawn furniture was blown around.				
ST. JOSEPH COUNTY --- 2.0 E WALKERTON [41.47, -86.44]				
	06/23/10 19:55 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 19:56 EST		0	Source: Broadcast Media
Media reports a large tree down 2 miles east of Walkerton.				
ST. JOSEPH COUNTY --- SOUTH BEND [41.67, -86.25]				
	06/23/10 19:55 EST		0	Thunderstorm Wind (EG 50 kt)
	06/23/10 19:56 EST		0	Source: Amateur Radio
Large tree branches downed.				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
ELKHART COUNTY --- 2.3 NW WAKARUSA [41.55, -86.05], 1.3 WSW (GSH)GOSHEN ARPT [41.52, -85.82]				
	06/23/10 19:59 EST		0.30M	Tornado (EF1, L: 11.85 mi , W: 50 yd)
	06/23/10 20:13 EST		25K	Source: NWS Storm Survey
<p>A survey of damage indicated a circulation touched down northwest of Wakarusa and worked east southeast, passing north of the town. The circulation skipped along its nearly 12 mile track, producing varying degrees of tree damage, including tree topping, uproots and snapping large limbs. The greatest damage occurred at the Ultimaster plant on State Route 19, where a portion of a second story wall and roof was ripped away. Tree and corn damage continued as the circulation approached New Paris, where it finally dissipated. Despite its track, the maximum width was only around 50 yards with maximum estimated winds of around 100 mph. Damage is estimated at \$300,000.</p>				
ELKHART COUNTY --- 0.6 S GOSHEN [41.57, -85.83], 1.0 ESE GOSHEN [41.57, -85.81]				
	06/23/10 20:09 EST		0.50M	Tornado (EF1, L: 0.98 mi , W: 50 yd)
	06/23/10 20:10 EST		0	Source: NWS Storm Survey
<p>A survey of damage in Goshen indicated a circulation touched down near the Parkside Elementary School, causing varying degrees of damage to trees at the school and to the east northeast as it moved through the southern parts of town. The circulation passed over the Aggregate Industries storage facilities, ripping the roof and portions of the metal shell away (DI:WHB; DOD:4). Several trucks in the building suffered damage as the roof struck them while being picked up. The tornado quickly dissipated after striking the facility. Debris from the building was found over a half mile away at the Elkhart County Fairgrounds. Damage for the building and contents is estimated at \$500,000.</p>				
ELKHART COUNTY --- ELKHART [41.68, -85.97]				
	06/23/10 20:09 EST		0	Thunderstorm Wind (EG 52 kt)
	06/23/10 20:10 EST		0	Source: Amateur Radio
<p>Amateur radio operator estimates wind gusts of up to 60 mph.</p>				
ELKHART COUNTY --- MILLERSBURG [41.52, -85.70]				
	06/23/10 20:09 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:10 EST		0	Source: Amateur Radio
<p>Several 10 inch diameter trees were snapped and blocking the road.</p>				
ELKHART COUNTY --- 1.0 N ELKHART [41.69, -85.97]				
	06/23/10 20:11 EST		0	Thunderstorm Wind (MG 61 kt)
	06/23/10 20:12 EST		0	Source: Trained Spotter
FULTON COUNTY --- ROCHESTER [41.07, -86.22]				
	06/23/10 20:11 EST		0	Thunderstorm Wind (MG 52 kt)
	06/23/10 20:12 EST		0	Source: Amateur Radio
KOSCIUSKO COUNTY --- 1.7 SSW MONOQUET [41.26, -85.88], 1.9 E WARSAW [41.24, -85.79]				
	06/23/10 20:14 EST		0.30M	Tornado (EF1, L: 4.79 mi , W: 150 yd)
	06/23/10 20:19 EST		0	Source: NWS Storm Survey
<p>A storm survey by NWS personnel indicated a weak circulation embedded in a initially stronger microburst south of US-30. Lofting of debris from a destroyed pole barn was evident in the area suggesting the tornado touched down near a residence south of Fox Farm Road, near North 200 West. The circulation continued to intensify as it tracked southeast into the Center Lake area. Numerous trees were damaged or uprooted along the track with a manufactured home being shifted off its blocks. As the tornado passed over State Route 15, it impacted the Warsaw Foundry, causing the southwest portion of the roof of a building to be torn off (DI: MBS, DOD: 3). The circulation continued across Pike Lake, causing damage to several homes and apartments as well as uprooting trees around the lake and an adjacent cemetery. As it approached U.S. 30, the circulation crossed a large residential area just south of the Kosciusko Community Hospital, uprooting several trees. One large tree fell into the center of a home on Parker Street, destroying it. The circulation crossed US 30 and began to weaken with scattered tree damage. The circulation finally dissipated along Old US 30 east of South 250 East. Maximum winds were estimated around 100 mph. Damage is estimated at \$300,000.</p>				
ELKHART COUNTY --- 0.7 ENE BENTON [41.52, -85.76], 1.0 SSE MILLERSBURG [41.51, -85.70]				
	06/23/10 20:15 EST		50K	Tornado (EF1, L: 3.45 mi , W: 100 yd)
	06/23/10 20:17 EST		0	Source: NWS Storm Survey

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
An off duty NWS employee witnessed a circulation touch down in an open field on West Lincoln Street, west of County Road 33 and move east southeast. The tornado's main structural impact occurred to a barn on the 15000 block of County Road 42. The owner of the barn witnessed the roof being picked up and carried into a nearby neighbor's yard (DI: SBO DOD: 6). The circulation then proceeded across the Timber Ridge Golf Course and began to turn more southeastward, causing extensive damage to over 200 trees on the course and then striking a large grove of 40 year old pine trees at a residence in the 12000 block of County Road 44. The final signs of the circulation were then found over an open field northwest of County Road 46 and State Route 13. Maximum winds are estimated at 100 mph.				

ELKHART COUNTY --- 2.5 SW MIDDLEBURY [41.65, -85.73], 2.1 SSW MIDDLEBURY [41.65, -85.72]				
	06/23/10 20:16 EST		10K	Tornado (EF0, L: 0.53 mi , W: 25 yd)
	06/23/10 20:17 EST		0	Source: Emergency Manager

Emergency management officials relayed that an Amish family observed a tornado in an open field adjacent to their farm race eastward, picking up the roof of a barn (DI: SBO DOD: 5) and carrying it away from the property before dropping it and dissipating. One of the doors facing the tornado may have been open, aiding in the uplift of the roof. As a result, winds are estimated at around 80 mph with a maximum width of 25 yards. Damage is estimated at around \$10,000.

ELKHART COUNTY --- 4.5 S MILLERSBURG [41.46, -85.71], 5.0 SSE MILLERSBURG [41.45, -85.68]				
	06/23/10 20:17 EST		75K	Tornado (EF0, L: 1.85 mi , W: 50 yd)
	06/23/10 20:19 EST		25K	Source: NWS Storm Survey

A survey of damage within a larger area of straight line wind damage revealed a circulation touched down roughly a mile northwest of the intersection of US 33 and US 6. Several trees were damaged as the circulation began moving southeast. Patches of corn were also flattened as it moved towards and crossed US 6. A barn was struck by the winds, blowing off the front door and causing a shift in the whole building's walls. The circulation then flipped several sections of 2 different center pivots. Maximum winds are estimated around 85 mph with a maximum width of around 50 yards. Damage is estimated at around \$100,000.

KOSCIUSKO COUNTY --- 2.0 N NORTH WEBSTER [41.35, -85.70]				
	06/23/10 20:21 EST		0	Thunderstorm Wind (EG 56 kt)
	06/23/10 20:22 EST		0	Source: NWS Employee

Estimated 65 mph gusts at NWS Office.

CASS COUNTY --- LOGANSPORT [40.75, -86.35]				
	06/23/10 20:26 EST		30K	Thunderstorm Wind (EG 60 kt)
	06/23/10 20:27 EST		0	Source: Emergency Manager

The roof of Tom Haynes Automotive was blown onto main feeder lines for Logansport municipal utilities which caused extensive power outages in Logansport. Numerous trees were downed across town that blocked roadways.

ELKHART COUNTY --- 5.0 NNE MIDDLEBURY [41.75, -85.66]				
	06/23/10 20:30 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:31 EST		0	Source: Trained Spotter

Trained spotter reports a 3 foot diameter tree down across road 4 SSW of White Pigeon, MI in Elkhart County. A truck ran into the tree and sustained damage. Power lines were also down.

KOSCIUSKO COUNTY --- LEESBURG [41.33, -85.85]				
	06/23/10 20:33 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:34 EST		0	Source: NWS Employee

Large trees downed.

KOSCIUSKO COUNTY --- SYRACUSE [41.42, -85.75]				
	06/23/10 20:35 EST		0	Thunderstorm Wind (EG 70 kt)
	06/23/10 20:36 EST		0	Source: Amateur Radio

A tree fell down into a house with estimated 80 mph wind gusts.

NOBLE COUNTY --- LIGONIER [41.47, -85.58]				
	06/23/10 20:37 EST		0	Thunderstorm Wind (EG 50 kt)
	06/23/10 20:38 EST		0	Source: Emergency Manager

Several tree limbs and power lines downed.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WHITLEY COUNTY --- 1.0 W COLUMBIA CITY [41.17, -85.50]				
	06/23/10 20:38 EST		0	Thunderstorm Wind (MG 65 kt)
	06/23/10 20:39 EST		0	Source: Trained Spotter
Trained spotter measured 75 mph gust at Lincoln Hwy and Hwy 30.				
LAGRANGE COUNTY --- LAGRANGE [41.65, -85.42]				
	06/23/10 20:40 EST		60K	Thunderstorm Wind (EG 60 kt)
	06/23/10 20:41 EST		0	Source: Emergency Manager
Numerous trees downed with some on cars. Power lines down across town and a barn was destroyed.				
WABASH COUNTY --- URBANA [40.90, -85.80]				
	06/23/10 20:42 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:43 EST		0	Source: Emergency Manager
Several trees and power lines down with some falling across roadways. Power lines down caused scattered power outages.				
MIAMI COUNTY --- 1.0 S PERU [40.74, -86.07]				
	06/23/10 20:48 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:49 EST		0	Source: Emergency Manager
Large tree down on State Road 19 south of Peru.				
NOBLE COUNTY --- ALBION [41.40, -85.42]				
	06/23/10 20:48 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:55 EST		0	Source: Emergency Manager
Trees downed all over Albion. One tree fell down on top of a car and trapped an occupant inside.				
HUNTINGTON COUNTY --- HUNTINGTON [40.88, -85.48]				
	06/23/10 20:56 EST		0	Thunderstorm Wind (MG 56 kt)
	06/23/10 20:57 EST		0	Source: Emergency Manager
Emergency manager measured a 65 mph gust and reported numerous trees and branches down countywide.				
STEBEN COUNTY --- 1.0 W PLEASANT LAKE [41.57, -85.04]				
	06/23/10 20:58 EST		0	Thunderstorm Wind (EG 50 kt)
	06/23/10 20:59 EST		0	Source: Amateur Radio
Large tree and 6 inch branches reported down.				
HUNTINGTON COUNTY --- HUNTINGTON [40.88, -85.48]				
	06/23/10 21:01 EST		40K	Thunderstorm Wind (MG 60 kt)
	06/23/10 21:02 EST		0	Source: Law Enforcement
The roof of a business at 239 Howenstein was partially blown off. Widespread trees down and power outages across town.				
STEBEN COUNTY --- 2.0 N PLEASANT LAKE [41.60, -85.02]				
	06/23/10 21:06 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 21:07 EST		0	Source: Law Enforcement
Law enforcement reported US 27 closed due to a large tree down between Pleasant Lake and Angola. There were widespread trees downed and power outages across the county.				
ALLEN COUNTY --- 2.0 NE FT WAYNE [41.09, -85.10]				
	06/23/10 21:11 EST		0	Thunderstorm Wind (MG 63 kt)
	06/23/10 21:12 EST		0	Source: Amateur Radio
Amateur radio operator measured a 73 mph gust near Stellhorn Road.				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
DE KALB COUNTY --- CORUNNA [41.43, -85.15]				
	06/23/10 21:11 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 21:12 EST	0		Source: Law Enforcement
Multiple trees and power lines were downed across town.				
GRANT COUNTY --- MARION [40.55, -85.58]				
	06/23/10 21:12 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 21:13 EST	0		Source: Trained Spotter
Widespread power outages with estimated gusts to 60 mph.				
ALLEN COUNTY --- NEW HAVEN [41.07, -85.02]				
	06/23/10 21:15 EST	0		Thunderstorm Wind (MG 54 kt)
	06/23/10 21:16 EST	0		Source: Amateur Radio
GRANT COUNTY --- SWEETSERS [40.57, -85.77]				
	06/23/10 21:20 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 21:21 EST	0		Source: Trained Spotter
Multiple trees downed.				
ALLEN COUNTY --- FT WAYNE [41.07, -85.13]				
	06/23/10 21:22 EST	0		Thunderstorm Wind (EG 60 kt)
	06/23/10 21:23 EST	0		Source: Law Enforcement
A semi was overturned on northbound I-69 at mile marker 19.				
ALLEN COUNTY --- MONROEVILLE [40.97, -84.87]				
	06/23/10 21:25 EST	0		Thunderstorm Wind (EG 60 kt)
	06/23/10 21:28 EST	0		Source: Trained Spotter
Trained spotter reports numerous trees and branches down in Monroeville with estimated 60-70 mph gusts.				
WELLS COUNTY --- BLUFFTON [40.73, -85.17]				
	06/23/10 21:30 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 21:31 EST	0		Source: Trained Spotter
Widespread trees down and power outages across town.				
WELLS COUNTY --- 4.0 NW BLUFFTON [40.77, -85.22]				
	06/23/10 21:40 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 21:41 EST	0		Source: Law Enforcement
Tree down at intersection of 400 N and 100 E.				
<p>A line of severe storms advanced from Illinois and intensified further as it interacted with strong instability and shear. The line took on a line echo wave pattern (LEWP), resulting in an abundance of wind damage reports, including a large scale microburst in La Porte county. In addition, several small, but strong areas of rotation developed on the north side of the LEWP, resulting in several tornadoes across Elkhart and Kosciusko counties.</p>				

LAKE MICHIGAN

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 0.9 NW MICHIGAN CITY [41.73, -86.91]				
	06/02/10 04:40 EST	0		Marine Thunderstorm Wind (MG 42 kt)
	06/02/10 04:50 EST	0		Source: C-MAN Station
A peak wind gust of 42 knots was recorded at the GLERL station at Michigan City, Indiana. Winds continued to gust in the 35 to 37 knot range for an additional 10 minutes after the initially stronger gust.				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

Increasing low level jet maximized flow ahead of a bow echo that raced across northern Illinois into portions of Lake Michigan. While no severe weather was produced over land, strong wind gusts were recorded as the line came onshore at Michigan City, Indiana.

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 2.0 NNW MICHIGAN CITY [41.75, -86.91]

06/18/10 17:00 EST		0	Marine Thunderstorm Wind (MG 62 kt)
06/18/10 17:01 EST		0	Source: C-MAN Station

A strong mid level trough and resultant increased wind field interacted with a stationary boundary and moderate instability. A long lived squall line developed across Illinois and moved east across far southeastern Lake Michigan.

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 2.0 NNW MICHIGAN CITY [41.75, -86.91]

06/23/10 19:05 EST		0	Marine Thunderstorm Wind (MG 56 kt)
06/23/10 19:06 EST		0	Source: C-MAN Station

A 56 knot gust was measured at the Great Lakes Environmental Research Laboratory (GLERL) site at Michigan City.

A line of severe storms advanced from Illinois and intensified further as it interacted with strong instability and shear. The developing line echo wave pattern (LEWP) produced damage south of the Michigan state line. A few strong wind gusts were noted over Southern Lake Michigan.

MICHIGAN, Extreme Southwest

BERRIEN COUNTY --- 2.2 NNW BARODA [41.98, -86.50], 1.6 N HINCHMAN [41.99, -86.44]

06/05/10 22:28 EST		0.15M	Tornado (EF2, L: 3.38 mi , W: 200 yd)
06/05/10 22:35 EST		0	Source: NWS Storm Survey

A survey of the area between Baroda and Stevensville indicated damage consistent with a tornado. The damage started on Marrs Road, just west of Stevensville-Baroda Road and continued east-northeast. The damage started with a travel trailer being thrown and destroyed as well as some tree damage. The circulation tracked mainly over open fields until reaching an area of homes on Lincoln Ave where the entire roof was ripped off a home (DI: FR12, DOD: 6) and another home suffered slightly less roof damage. The circulation continued northeast, crossing Hollywood Road, north of Linco Road. Several one year old 24 inch diameter power poles were snapped (DI: ETL; DOD 4). In addition, a harrow and trailer were thrown from a barn roughly 150 to 200 yards into a field. The circulation appears to dissipate north of Linco Road on Scottdale Road. The tornado was roughly 200 yards wide at its peak. Maximum winds are estimated at around 125 mph.

BERRIEN COUNTY --- 1.1 WNW ARDEN [41.99, -86.42], 0.5 NE ARDEN [41.98, -86.39]

06/05/10 22:36 EST		0.10M	Tornado (EF1, L: 1.44 mi , W: 100 yd)
06/05/10 22:39 EST		0	Source: NWS Storm Survey

Just to the southeast of the first tornado of the evening a separate storm produced another tornado about a mile southeast of the first one, on Linco Road. The circulation continued along the road where it struck a garage near the intersection of Linco and Garr Roads. The east side of the garage was blown outwards. The tornado then turned somewhat southeast ending on Michigan 139, where a pole barn was destroyed. The tornado reached a maximum width of around 100 yards with top winds estimated at around 100 mph.

BERRIEN COUNTY --- 0.9 ENE ARDEN [41.99, -86.38], 2.8 ENE BERRIEN CENTER [41.97, -86.22]

06/05/10 22:40 EST		30K	Thunderstorm Wind (EG 83 kt)
06/05/10 22:51 EST		0.12M	Source: NWS Storm Survey

A microburst, which likely assisted in the demise of the second tornado in Berrien County, raced east-southeast ward, causing extensive damage to trees for roughly 8 miles in the eastern part of the county, as well as the destruction of a shed and severe damage to a car. An orchard near the intersection of Hipps Hollow Road and Hochberger Road suffered extensive wind damage as well. The damage continued and crossed into Cass County near County Line Road and Frost Street.

CASS COUNTY --- 2.4 SSW INDIAN LAKE [41.97, -86.22], 1.4 SSW DOWAGIAC [41.96, -86.11]

06/05/10 22:51 EST		0.10M	Thunderstorm Wind (EG 75 kt)
06/05/10 22:58 EST		0	Source: NWS Storm Survey

Microburst damage continued into Cass County from Berrien County, near County Line Road and Frost Street. Tree damaged continued along the track, with somewhat more concentrated damage towards the end of the path as it tracked across some residential areas. Three homes suffered minor damage from either the winds or trees falling onto them. A barn and garage were destroyed at the end of the microburst near Wilbur Hill Road and Peavine Street. The supercell that caused the microburst produced yet another tornado just to the east of this microburst damage.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
CASS COUNTY --- 1.3 SSE DOWAGIAC [41.96, -86.09], 0.5 ENE LA GRANGE [41.95, -86.04]				
	06/05/10 22:59 EST		0.10M	Tornado (EF2, L: 2.73 mi , W: 200 yd)
	06/05/10 23:04 EST		0	Source: NWS Storm Survey
<p>After leaving behind a swath of microburst winds, the storm intensified with a tornado touching down about a half mile southwest of Southwestern Michigan College, near Dowagiac. The circulation initially impacted the Pokagon subdivision with numerous homes suffering varying degrees of damage (DI: FR12 DOD: 4). The circulation continued east-southeast through mainly open and wooded areas, severely damaging numerous trees. The most extensive tree damage occurred near Michigan 62, west of Twin Lake Road where a 600 yard wide area of trees suffered extensive damage. The circulation was likely embedded within a much larger area of rear flank downdraft winds. The circulation then turned more southeast and hit a cemetery on Michigan 62, south of Cass Street. The circulation quickly dissipated after this point. Maximum winds are estimated at around 115 mph.</p>				
ST. JOSEPH COUNTY --- 1.3 SW CONSTANTINE [41.82, -85.69], 3.3 E OAKWOOD [41.78, -85.49]				
	06/05/10 23:32 EST		0.30M	Tornado (EF2, L: 10.65 mi , W: 200 yd)
	06/05/10 23:40 EST		0	Source: NWS Storm Survey
<p>A survey of damage across southern St. Joseph County was performed by NWS Personnel. The damage found indicates that a circulation touched down over an open field north of Miller Road and west of Blue School Road. The tornado initially struck two barns, destroying them and sending the debris several miles downwind. The tornado then picked up a trailer at a local Port-A-Jon business. It appears that a combination of the strong winds and the trailer striking one of the guy wires, resulted in a 350 foot cell tower being blown down into an adjacent tower, causing the failure of both (DI: FST DOD:2). The tornado then continued across mainly open fields, scouring a 200 yard wide area of corn, just to the east-southeast of the cell towers and several trees along its track. The final damage occurred at a residence where minor roof damage was done to a barn, as well as more focused tree damage and a center pivot irrigation system being flipped. The tornado reached a maximum of roughly 200 yards in width and was on the ground for over 10 miles. Maximum winds are estimated at around 125 mph.</p>				
BRANCH COUNTY --- 0.9 NW MATTESON [41.94, -85.21]				
	06/05/10 23:48 EST		0	Thunderstorm Wind (EG 60 kt)
	06/05/10 23:49 EST		0	Source: Emergency Manager
<p>Emergency management officials reported a large tree down at M-86 and Farrand Road.</p>				
BRANCH COUNTY --- 0.7 S COLDWATER [41.94, -85.00]				
	06/05/10 23:57 EST		0	Thunderstorm Wind (EG 60 kt)
	06/05/10 23:58 EST		0	Source: Emergency Manager
<p>Emergency management officials reported numerous trees and tree limbs down in and around Coldwater.</p>				
<p>A warm front worked north towards Lower Michigan during the evening hours of the 5th. Storms were initially slow to organize, but quickly intensified and became super-cellular as they moved off Lake Michigan. A combination of tornadoes and micro bursts were found in surveys across Berrien, Cass and St. Joseph counties.</p>				
(MI-Z077) BERRIEN				
	06/16/10 19:00 EST		0	Rip Current
	06/16/10 19:01 EST		0	
<p>High waves caused an increased risk of rip currents along the lake-shore of southeastern Lake Michigan. An 11 year old boy was rescued by lifeguards at Silver Beach, but was not injured.</p>				
BERRIEN COUNTY --- 0.9 NE NEW BUFFALO [41.79, -86.74]				
	06/18/10 17:25 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 17:26 EST		0	Source: Emergency Manager
<p>Numerous reports of trees and power lines down.</p>				
BERRIEN COUNTY --- 0.5 E BUCHANAN [41.83, -86.36]				
	06/18/10 17:39 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 17:40 EST		0	Source: Trained Spotter
<p>Tree limbs down.</p>				
BERRIEN COUNTY --- (BEH)ROSS ARPT BNTN [42.13, -86.43]				
	06/18/10 17:43 EST		0	Thunderstorm Wind (MG 54 kt)
	06/18/10 17:44 EST		0	Source: ASOS

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
BERRIEN COUNTY --- NILES [41.83, -86.25]				
	06/18/10 17:46 EST		0	Thunderstorm Wind (EG 70 kt)
	06/18/10 17:47 EST		0	Source: Broadcast Media
Nine power poles snapped.				
BERRIEN COUNTY --- GALIEN [41.80, -86.50]				
	06/18/10 17:49 EST		0	Thunderstorm Wind (MG 51 kt)
	06/18/10 17:50 EST		0	Source: Emergency Manager
CASS COUNTY --- 2.1 NW BARRON LAKE [41.85, -86.20]				
	06/18/10 17:50 EST		7.50K	Thunderstorm Wind (EG 60 kt)
	06/18/10 17:51 EST		0	Source: Amateur Radio
A tree fell into a house and collapsed the bathroom wall.				
BERRIEN COUNTY --- 0.7 N ST JOSEPH [42.11, -86.48]				
	06/18/10 17:52 EST		0	Thunderstorm Wind (EG 50 kt)
	06/18/10 17:53 EST		0	Source: Trained Spotter
Tree branches down.				
BERRIEN COUNTY --- 0.5 E BUCHANAN [41.83, -86.36]				
	06/18/10 18:00 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:01 EST		0	Source: Trained Spotter
Trees down.				
CASS COUNTY --- 0.5 E VANDALIA [41.92, -85.91]				
	06/18/10 18:24 EST		0	Thunderstorm Wind (MG 59 kt)
	06/18/10 18:25 EST		0	Source: Trained Spotter
Power was also out along M-60.				
ST. JOSEPH COUNTY --- THREE RIVERS ARPT [41.97, -85.60]				
	06/18/10 18:36 EST		0	Thunderstorm Wind (MG 69 kt)
	06/18/10 18:37 EST		0	Source: AWOS
Peak wind measured at KHAI.				
BERRIEN COUNTY --- 0.7 N ST JOSEPH [42.11, -86.48]				
	06/18/10 18:40 EST		0	Thunderstorm Wind (MG 52 kt)
	06/18/10 18:41 EST		0	Source: Trained Spotter
BRANCH COUNTY --- 0.5 W SHERWOOD [42.00, -85.24]				
	06/18/10 18:47 EST		0	Thunderstorm Wind (EG 61 kt)
	06/18/10 18:48 EST		0	Source: Fire Department/Rescue
Fire department estimates gusts of 60 to 70 mph with numerous trees down.				
ST. JOSEPH COUNTY --- 0.5 W WHITE PIGEON [41.80, -85.64]				
	06/18/10 18:49 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:50 EST		0	Source: Trained Spotter
Numerous trees and power lines down.				
BRANCH COUNTY --- 0.5 W UNION CITY [42.07, -85.14]				
	06/18/10 18:58 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 18:59 EST		0	Source: Emergency Manager

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Numerous trees and power lines down.				
BRANCH COUNTY --- 0.9 SW BRONSON ARPT [41.87, -85.19]				
	06/18/10 18:59 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 19:00 EST		0	Source: Fire Department/Rescue
Numerous trees and power lines down.				
ST. JOSEPH COUNTY --- 1.7 NE OAKWOOD [41.80, -85.53]				
	06/18/10 19:19 EST		0	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:20 EST		0	Source: Trained Spotter
A 40 foot tall, 1 foot diameter tree was down.				
BRANCH COUNTY --- 0.9 SW BRONSON ARPT [41.87, -85.19]				
	06/18/10 19:42 EST		10K	Thunderstorm Wind (EG 60 kt)
	06/18/10 19:43 EST		0	Source: Law Enforcement
Law enforcement reported widespread power outages and a tree that fell on a car.				
HILLSDALE COUNTY --- 0.5 W HILLSDALE [41.92, -84.63]				
	06/18/10 19:59 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 20:00 EST		0	Source: Emergency Manager
Trees and power lines down.				
HILLSDALE COUNTY --- 0.5 W HILLSDALE [41.92, -84.63]				
	06/18/10 20:43 EST		0	Thunderstorm Wind (EG 55 kt)
	06/18/10 20:44 EST		0	Source: Amateur Radio
Numerous trees down.				
A strong mid level trough and resultant increased wind field interacted with a stationary boundary and moderate instability. A long lived squall line developed across Illinois and moved east into far southern Lower Michigan. Numerous reports of trees, tree limbs and power lines were blown down with winds more than 70 mph at times.				
CASS COUNTY --- 1.0 ESE UNION [41.77, -85.85]				
	06/23/10 20:07 EST		0	Thunderstorm Wind (MG 70 kt)
	06/23/10 20:08 EST		0	Source: Trained Spotter
A trained spotter measured a 80 mph gust with anemometer.				
CASS COUNTY --- 5.0 E UNION [41.78, -85.77], 4.0 SE UNION [41.74, -85.82]				
	06/23/10 20:21 EST		0	Thunderstorm Wind (MG 60 kt)
	06/23/10 20:22 EST		0	Source: Trained Spotter
Multiple large trees downed 1 to 3 miles southwest of Mottville.				
HILLSDALE COUNTY --- LITCHFIELD [42.05, -84.75]				
	06/23/10 20:29 EST		0	Thunderstorm Wind (MG 60 kt)
	06/23/10 20:30 EST		0	Source: Emergency Manager
Widespread tree damage and power outages reported. A farm barn was flattened and a factory at M49 and Herring Road lost part of its roof.				
ST. JOSEPH COUNTY --- 0.7 N WHITE PIGEON [41.81, -85.63]				
	06/23/10 20:30 EST		20K	Lightning
	06/23/10 20:31 EST		0	Source: Trained Spotter
A trained spotter reported that a house on Dickinson Road was struck by lightning and on fire.				
BRANCH COUNTY --- COLDWATER [41.95, -85.00]				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/23/10 20:33 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 20:34 EST		0	Source: Emergency Manager

Widespread trees and power lines down in Coldwater, Sherwood, Girard and Bronson in Branch County.

A line of severe storms advanced from Illinois and intensified further as it interacted with strong instability and shear. The bulk of the effects of the resultant line echo wave pattern (LEWP) remained mainly south of the Michigan state line. However, some reports of wind damage were received as it progressed east.

OHIO, Northwest

ALLEN COUNTY --- 2.2 WSW LIMA [40.73, -84.14]

06/05/10 00:00 EST	0	Thunderstorm Wind (EG 55 kt)
06/05/10 00:01 EST	0	Source: Newspaper

A local newspaper reported a large tree fell onto a house and garage in the 600 block of Nixon Avenue in Lima. No information was provided in terms of damage to the structures.

WILLIAMS COUNTY --- 2.1 W PIONEER [41.68, -84.57]

06/05/10 21:03 EST	0	Thunderstorm Wind (EG 55 kt)
06/05/10 21:04 EST	0	Source: Law Enforcement

Law enforcement officials reported a tree being blown down onto a vehicle. No damage estimates were available.

FULTON COUNTY --- 4.3 S SOUTH DELTA [41.49, -84.01], 2.5 SE BRAILEY [41.53, -83.88]

06/05/10 21:38 EST	0.50M	Tornado (EF2, L: 7.24 mi , W: 700 yd)
06/05/10 21:44 EST	0	Source: NWS Storm Survey

The tornado touched down along Highway 109 just north of County Road A and moved northeast, impacting several homes, trees and power lines. Several homes were severely damaged or destroyed (DI:FR12 DOD: 8). However, improper anchoring of some of the homes resulted in a failure on all walls, resulting in their destruction. Several trees were uprooted or damaged, including through the Maumee State Forest. The tornado ended near the Fulton/Lucas county line. The maximum width of the tornado was around 700 yards with maximum wind speeds estimated around 130 mph. Damage is estimated at \$500,000.

A warm front worked north towards Lower Michigan during the evening hours of the 5th. Storms were initially slow to organize, but quickly intensified and became super-cellular. One of these storms tracked into Fulton County and quickly spawned a tornado north of Liberty Center. The tornado remained on the ground for roughly 7 miles producing damage along its track before dissipating near the Fulton/Lucas county line.

ALLEN COUNTY --- 1.6 W LIMA [40.75, -84.13], 1.5 W LIMA [40.75, -84.13]

06/11/10 16:33 EST	0	Tornado (EF0, L: 0.13 mi , W: 25 yd)
06/11/10 16:34 EST	0	Source: Broadcast Media

The broadcast media relayed eyewitness reports of a weak, short-lived circulation that briefly touched down near the intersection of Kenilworth Avenue and Rice Avenue. Despite the touchdown, the only damage observed in the area was the blowing around of a trampoline. The circulation dissipated northwest of the intersection of Rice Avenue and Cole Street.

ALLEN COUNTY --- 0.9 SW LIMA [40.74, -84.11]

06/11/10 16:45 EST	0	Thunderstorm Wind (EG 50 kt)
06/11/10 16:46 EST	0	Source: Trained Spotter

A trained spotter reported a light pole was damaged by strong winds at the intersection of Metcalf and Elm.

Weak shear allowed for an isolated thunderstorm to produce a brief tornado that touched down over an open field and dissipated.

PUTNAM COUNTY --- 1.3 WSW GLANDORF [41.02, -84.10]

06/12/10 20:22 EST	25K	Thunderstorm Wind (EG 60 kt)
06/12/10 20:23 EST	0	Source: Public

The public reported a barn was blown off its foundation, with numerous trees being downed. Roof damage also occurred to some nearby buildings. Damage is estimated at \$25,000.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
An east-west boundary and strong mid level wind flow combined with several left-over disturbances from convection to the west, to allow for thunderstorm develop. Some of these storms became severe with damaging winds dominating the reports.				
<hr/>				
PAULDING COUNTY --- 0.5 W ANTWERP [41.18, -84.74]				
	06/18/10 19:38 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 19:39 EST	0		Source: Emergency Manager
Small tree down.				
<hr/>				
PAULDING COUNTY --- 0.9 NW PAULDING [41.14, -84.58]				
	06/18/10 19:40 EST	0		Thunderstorm Wind (MG 59 kt)
	06/18/10 19:41 EST	0		Source: Trained Spotter
Small branches down throughout village.				
<hr/>				
HENRY COUNTY --- 0.7 N NAPOLEON [41.39, -84.13]				
	06/18/10 20:10 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 20:11 EST	0		Source: Emergency Manager
Tree down on Riverview.				
<hr/>				
FULTON COUNTY --- 1.2 SW WAUSEON ARPT [41.57, -84.17]				
	06/18/10 20:11 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 20:12 EST	0		Source: Emergency Manager
Trees down on US 20 at CR 13.				
<hr/>				
PUTNAM COUNTY --- 0.5 W COLUMBUS GROVE [40.92, -84.06]				
	06/18/10 20:23 EST	0		Thunderstorm Wind (MG 53 kt)
	06/18/10 20:24 EST	0		Source: Trained Spotter
<hr/>				
PUTNAM COUNTY --- CONTINENTAL [41.10, -84.27]				
	06/18/10 20:30 EST	0		Thunderstorm Wind (EG 55 kt)
	06/18/10 20:31 EST	0		Source: Emergency Manager
Trees down and power out.				
<hr/>				
PUTNAM COUNTY --- 1.3 ESE OTTAWA PUTNAM CO ARP [41.02, -83.96]				
	06/18/10 20:36 EST	0		Thunderstorm Wind (EG 60 kt)
	06/18/10 20:37 EST	0		Source: Trained Spotter
Large tree fell down on top of power lines.				
A strong mid level trough and resultant increased wind field interacted with a stationary boundary and moderate instability. A long lived squall line developed across Illinois, moved through northern Indiana and into northwestern Ohio. The line was beginning to lose some strength but did produce reports of trees, tree limbs and power lines down.				
<hr/>				
PAULDING COUNTY --- 0.9 W PAULDING [41.13, -84.59]				
	06/23/10 13:05 EST	0		Thunderstorm Wind (MG 53 kt)
	06/23/10 13:06 EST	0		Source: Emergency Manager
Paulding County Emergency Management measured 61 mph gust at Emergency Management Agency office.				
<hr/>				
PUTNAM COUNTY --- 2.0 ENE KALIDA [40.99, -84.14]				
	06/23/10 13:50 EST	0		Thunderstorm Wind (EG 55 kt)
	06/23/10 13:51 EST	0		Source: Trained Spotter
Multiple trees downed at CR M and K-14.				
<hr/>				
PUTNAM COUNTY --- COLUMBUS GROVE [40.92, -84.05]				

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	06/23/10 13:55 EST		0	Thunderstorm Wind (EG 60 kt)
	06/23/10 13:56 EST		0	Source: Trained Spotter

A 24 to 36 inch diameter healthy tree was uprooted. Numerous tree limbs were downed and power was out in town.

PUTNAM COUNTY --- 2.0 ENE COLUMBUS GROVE [40.93, -84.01]

06/23/10 13:57 EST	0	Thunderstorm Wind (EG 55 kt)
06/23/10 13:58 EST	0	Source: Trained Spotter

Multiple tree branches were down across SR 12.

The remnants of a line of thunderstorms that moved through much of Lower Michigan spread into northwestern Ohio, allowing for a few thunderstorms to affect the area. Some of these did become locally severe, but dissipated by mid afternoon.

VAN WERT COUNTY --- 2.8 S VAN WERT ARPT [40.83, -84.60], 2.6 WNW VAN WERT CIRCLE S AR [40.83, -84.58]

06/23/10 20:50 EST	0	Tornado (EF0, L: 0.93 mi , W: 50 yd)
06/23/10 20:51 EST	0	Source: Emergency Manager

Emergency management officials surveyed an area of damage south of Van Wert and determined a circulation touched down in a wheat field a quarter mile west of Dustman Drive and US 127. The circulation continued along Dustman Road, with most of the damage being to trees. A few limbs fell onto homes, causing minor damage. In addition, some shingle damage occurred. The roof of a barn was torn off near US 127 as well. Winds are estimated to be between 80 and 85 mph with a maximum width of the tornado of around 50 yards.

WILLIAMS COUNTY --- 1.0 SW EDGERTON [41.44, -84.76], 1.0 NE EDGERTON [41.46, -84.74]

06/23/10 21:10 EST	0.20M	Thunderstorm Wind (EG 87 kt)
06/23/10 21:15 EST	1	Source: NWS Storm Survey

An intense microburst with estimated winds at 100 mph was surveyed in the town of Edgerton. A large portion of the upper story of the old town hall building next to the fire department was blown in with loss of much of the roof. Debris from this structure damaged nearby vehicles and the flea market building across the street including a portion of the south-facing wall getting blown out. One person was injured at this location from falling debris. In addition, a freight container was blown off an intermodal train and there was significant tree damage in town. Wind damage path was about 3 miles long and a quarter of a mile wide.

VAN WERT COUNTY --- 3.0 N CONVOY [40.96, -84.70]

06/23/10 21:30 EST	0	Thunderstorm Wind (EG 55 kt)
06/23/10 21:31 EST	0	Source: Emergency Manager

Numerous trees downed.

DEFIANCE COUNTY --- DEFIANCE [41.28, -84.35]

06/23/10 21:35 EST	0	Thunderstorm Wind (EG 55 kt)
06/23/10 21:36 EST	0	Source: Emergency Manager

Multiple trees downed.

VAN WERT COUNTY --- 1.0 S SCOTT [40.97, -84.57]

06/23/10 21:35 EST	0	Thunderstorm Wind (EG 55 kt)
06/23/10 21:36 EST	0	Source: Emergency Manager

Emergency management officials reported a large tree down blocking road.

PAULDING COUNTY --- LATTY [41.08, -84.58]

06/23/10 21:40 EST	0	Thunderstorm Wind (EG 55 kt)
06/23/10 21:41 EST	0	Source: Emergency Manager

Power lines and small tree branches downed.

ALLEN COUNTY --- DELPHOS [40.83, -84.33]

06/23/10 21:59 EST	0	Thunderstorm Wind (MG 54 kt)
06/23/10 22:00 EST	0	Source: Amateur Radio

An amateur radio operator measured a 62 mph gust.

Storm Data and Unusual Weather Phenomena - June 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
<hr/>				
HENRY COUNTY --- 3.0 E LIBERTY CENTER [41.43, -83.96]	06/23/10 22:03 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 22:04 EST		0	Source: Emergency Manager

Power lines downed and power out at CR T and CR 4.

<hr/>				
HENRY COUNTY --- 3.0 SW MC CLURE [41.34, -83.97]	06/23/10 22:08 EST		0	Thunderstorm Wind (EG 55 kt)
	06/23/10 22:09 EST		0	Source: Emergency Manager

Trees and power lines downed at CR M4 and CR 7.

A line of severe storms advanced from Illinois and intensified further as it interacted with strong instability and shear. The line took on a line echo wave pattern (LEWP), resulting in an abundance of wind damage reports, including a focused micro-burst in Williams County. A brief tornado also developed in Van Wert County, resulting in some damage.

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
KOSCIUSKO COUNTY --- 2.5 WSW PACKERTON [41.10, -85.84]				
	07/15/10 13:12 EST		0	Thunderstorm Wind (EG 50 kt)
	07/15/10 13:13 EST		0	Source: NWS Employee
Off duty NWS employees reported several tree limbs down near the intersection of County Road 800 South and County Farm Road.				
KOSCIUSKO COUNTY --- 2.6 SW PACKERTON [41.09, -85.83]				
	07/15/10 13:14 EST		0	Thunderstorm Wind (EG 55 kt)
	07/15/10 13:15 EST		0	Source: NWS Employee
Off duty NWS Employees reported a power pole down as well as numerous tree limbs on Packerton Road, north of State Route 14.				
CASS COUNTY --- 2.7 NNW LOGANSPOUT [40.78, -86.37]				
	07/15/10 13:44 EST		50K	Thunderstorm Wind (EG 55 kt)
	07/15/10 13:45 EST		0	Source: Emergency Manager
Emergency management officials reported a large tree fell onto a house, penetrating the roof and causing significant damage. Rainfall entered the home through the opening adding to the damage. Damage is estimated at around \$50,000. Other trees and tree limbs were reported down in the New Waverly area as well.				
WHITLEY COUNTY --- 0.9 NW CHURUBUSCO [41.24, -85.33]				
	07/15/10 13:53 EST		2.50K	Thunderstorm Wind (EG 55 kt)
	07/15/10 13:54 EST		0	Source: Emergency Manager
Emergency management officials reported a tree down onto a mobile home in Shady Grove trailer park. Damage is estimated at \$2,500.				
Deep moisture and an increasing low level jet interacted with a pre-frontal trough to spark showers and thunderstorms. Wind fields were sufficiently strong to allow for damaging winds in some locations.				
PULASKI COUNTY --- 1.3 WSW LAKESIDE [40.92, -86.75]				
	07/17/10 14:47 CST		0	Hail (0.88 in)
	07/17/10 14:48 CST		0	Source: Trained Spotter
A trained spotter reported nickel size hail along with very heavy rainfall.				
WHITE COUNTY --- 3.0 ENE GARWOOD ARPT [40.90, -86.80]				
	07/17/10 15:50 EST		0	Hail (1.50 in)
	07/17/10 15:51 EST		0	Source: Trained Spotter
A trained spotter reported mainly nickel size hail, with a few hailstones measured around one and a half inches.				
WHITE COUNTY --- 3.0 ENE GARWOOD ARPT [40.90, -86.80]				
	07/17/10 16:00 EST		0	Hail (1.00 in)
	07/17/10 16:01 EST		0	Source: Trained Spotter
WHITE COUNTY --- 2.8 S WHITE CO ARPT [40.68, -86.78]				
	07/17/10 17:10 EST		0	Hail (1.75 in)
	07/17/10 17:11 EST		0	Source: Law Enforcement
Increasing moisture and a lake breeze resulted in the development of isolated thunderstorms. The majority of these storms were pulse in nature and produced no severe weather. However, an isolated storm was able to briefly exhibit some rotation which allowed larger hail production to occur over White county.				
LA PORTE COUNTY --- 0.5 W MICHIGAN CITY MUNI [41.68, -86.89]				
	07/18/10 12:45 CST		0	Thunderstorm Wind (EG 55 kt)
	07/18/10 12:46 CST		0	Source: Law Enforcement
Law enforcement officials reported tree limbs down onto power lines in the 6300 block of North 400 West.				

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
Convection developed over northeastern Illinois and moved across much of northern Indiana. Dense cloud cover much of the day prevented widespread severe weather. However some storms were able to produce damaging wind gusts in several locations.				
<hr/>				
ST. JOSEPH COUNTY --- (SBN)MICHIANA ARPT S [41.70, -86.32]	07/23/10 19:52 EST	0		Thunderstorm Wind (MG 50 kt)
	07/23/10 19:53 EST	0		Source: ASOS
The ASOS at the South Bend Regional Airport recorded a 58 mph wind gust as the storms passed.				
<hr/>				
ELKHART COUNTY --- 0.5 W ELKHART [41.68, -85.98]	07/23/10 20:05 EST	0		Thunderstorm Wind (MG 63 kt)
	07/23/10 20:06 EST	0		Source: Trained Spotter
A trained spotter recorded a 72 mph wind gust on the west side of Elkhart.				
A hot and moist air mass was in place across northern Indiana with temperatures in the 90s and dewpoints in the 70s. Strong wind fields in the lower levels were able to reach the ground in several locations causing damage.				
<hr/>				
LA PORTE COUNTY --- 0.7 N LA PORTE [41.61, -86.72]	07/24/10 06:50 CST	0		Thunderstorm Wind (EG 55 kt)
	07/24/10 06:51 CST	0		Source: Law Enforcement
Law enforcement officials reported several trees down across the northern part of the county.				
A complex of thunderstorms moved along a frontal boundary across Lake Michigan and into portions of northwestern Indiana. Some damage occurred in Laporte County before the storms weakened further.				
<hr/>				
STARKE COUNTY --- KNOX [41.30, -86.63]	07/24/10 17:15 CST	0		Thunderstorm Wind (MG 52 kt)
	07/24/10 17:16 CST	0		Source: Trained Spotter
A trained spotter recorded a 60 mph wind gust in Knox.				
<hr/>				
STARKE COUNTY --- 1.3 WSW BASS LAKE [41.21, -86.60]	07/24/10 17:23 CST	0		Thunderstorm Wind (EG 55 kt)
	07/24/10 17:24 CST	0		Source: Law Enforcement
Law enforcement officials reported numerous trees down around Bass Lake.				
<hr/>				
MIAMI COUNTY --- PERU [40.75, -86.07]	07/24/10 19:10 EST	0		Thunderstorm Wind (EG 55 kt)
	07/24/10 19:11 EST	0		Source: Law Enforcement
Law enforcement officials reported a large tree down onto County Road 500 North.				
<hr/>				
WABASH COUNTY --- WABASH [40.80, -85.82], 1.3 NNE RICH VLY [40.80, -85.91], 2.1 SE RICH VLY [40.76, -85.90], 0.8 SSE WABASH ARPT [40.76, -85.80]	07/24/10 21:05 EST	0		Flash Flood (due to Heavy Rain)
	07/24/10 23:59 EST	0		Source: Emergency Manager
Emergency management officials reported several county and city roads closed due to flowing high water.				
A cold front across Illinois and an outflow boundary across central Indiana tapped strong instability and wind fields to allow for thunderstorm development across Illinois which tracked into much of northern Indiana.				
<hr/>				
STARKE COUNTY --- 0.5 W KOONTZ LAKE LAKE [41.42, -86.49]	07/28/10 14:44 CST	0		Thunderstorm Wind (EG 55 kt)
	07/28/10 14:45 CST	0		Source: Emergency Manager
Emergency management officials reported trees, tree limbs and power lines down.				
<hr/>				
LAGRANGE COUNTY --- HOWE [41.72, -85.42]				

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/28/10 14:45 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 14:46 EST		0	Source: Law Enforcement
Law enforcement officials reported a large tree down on North County Road 230 East.				
<hr/>				
LAGRANGE COUNTY --- 1.7 WSW VALENTINE [41.57, -85.41]				
	07/28/10 15:00 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 15:01 EST		0	Source: Law Enforcement
Law enforcement officials reported a large tree down on East 450 South in the Oliver Lake area.				
<hr/>				
LAGRANGE COUNTY --- HOWE [41.72, -85.42]				
	07/28/10 15:00 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 15:01 EST		0	Source: Emergency Manager
Emergency management officials reported numerous trees blown down in Howe. In addition, a open baseball dugout was destroyed at a school at 600 North and State Route 9.				
<hr/>				
ELKHART COUNTY --- 1.4 N GOSHEN [41.60, -85.83]				
	07/28/10 15:05 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 15:06 EST		0	Source: Trained Spotter
A trained spotter reported one large tree as well as numerous tree limbs down.				
<hr/>				
LAGRANGE COUNTY --- 0.9 NE TOPEKA [41.54, -85.54]				
	07/28/10 15:05 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 15:06 EST		0	Source: Law Enforcement
Law enforcement officials reported a large tree down on South County Road 75 West.				
<hr/>				
ELKHART COUNTY --- 1.7 WNW WATERFORD MILLS [41.56, -85.86]				
	07/28/10 15:10 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 15:11 EST		0	Source: Broadcast Media
Broadcast media reported a portion of a roof being blown off of a house and power poles snapped on State Route 19 south of County Road 38.				
<hr/>				
ELKHART COUNTY --- GOSHEN [41.58, -85.83]				
	07/28/10 15:10 EST		0	Thunderstorm Wind (EG 52 kt)
	07/28/10 15:11 EST		0	Source: Trained Spotter
A trained spotter estimated 60 mph wind gusts in the 14000 block of 600 South.				
<hr/>				
NOBLE COUNTY --- 0.9 SE KENDALLVILLE [41.44, -85.26]				
	07/28/10 15:45 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 15:46 EST		0	Source: Emergency Manager
Emergency management officials reported tree limbs down near US 6 and Main Street in Kendallville.				
<hr/>				
NOBLE COUNTY --- 1.9 N KENDALLVILLE ARPT [41.51, -85.28]				
	07/28/10 15:45 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 15:46 EST		0	Source: Emergency Manager
Emergency management officials reported a large tree down across State Route 3, near Cree Lake.				
<hr/>				
DE KALB COUNTY --- SPENCERVILLE [41.28, -84.92]				
	07/28/10 16:00 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 16:01 EST		0	Source: Law Enforcement
Law enforcement officials reported trees and power lines down in Spencerville.				
<hr/>				
MARSHALL COUNTY --- 0.5 E CULVER [41.22, -86.42], 9.9 W CULVER [41.24, -86.62]				

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/28/10 16:30 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 16:40 EST		0	Source: Law Enforcement

Law enforcement officials reported trees and power lines down across the county.

ALLEN COUNTY --- 0.7 N FT WAYNE [41.08, -85.13]

	07/28/10 16:39 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 16:40 EST		0	Source: Law Enforcement

Law enforcement officials reported a tree down onto a house in the 2600 block of Evans Street.

HUNTINGTON COUNTY --- 1.0 W HUNTINGTON [40.88, -85.50]

	07/28/10 16:39 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 16:40 EST		0	Source: Trained Spotter

A trained spotter reported the top of a medium size pine tree snapped off.

HUNTINGTON COUNTY --- 1.0 W HUNTINGTON [40.88, -85.50]

	07/28/10 16:40 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 16:41 EST		0	Source: Public

The public reported numerous trees down. In addition, an auto repair shop sign was blown down on Business 24.

ALLEN COUNTY --- 0.5 E NEW HAVEN [41.07, -85.01]

	07/28/10 16:44 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 16:45 EST		0	Source: Trained Spotter

A trained spotter reported a tree down onto a trailer. No information was available on damage.

KOSCIUSKO COUNTY --- 0.4 NNW MENTONE [41.18, -86.03], 1.3 WNW WARSAW [41.24, -85.85]

	07/28/10 16:45 EST		0	Thunderstorm Wind (EG 60 kt)
	07/28/10 16:52 EST		0	Source: Law Enforcement

Law enforcement officials reported numerous trees down from Mentone to Warsaw.

WABASH COUNTY --- 4.7 W SPEICHERVILLE [40.85, -85.89]

	07/28/10 18:05 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 18:06 EST		0	Source: Law Enforcement

Law enforcement officials reported trees down on State Route 115 and 15.

GRANT COUNTY --- 1.3 WNW SHADY HILLS [40.58, -85.69]

	07/28/10 18:25 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 18:26 EST		0	Source: Law Enforcement

Law enforcement officials reported two trees down onto a road north of Marion.

A moist and unstable air mass ahead of a cold front allowed for the development of thunderstorms from Lower Michigan into Illinois. Several storms produced damaging winds as they moved across northern Indiana.

MICHIGAN, Extreme Southwest

BERRIEN COUNTY --- 1.5 NNW STEVENSVILLE [42.04, -86.53]

	07/18/10 14:06 EST		0	Thunderstorm Wind (EG 52 kt)
	07/18/10 14:07 EST		0	Source: Public

The public estimated a wind gust to 60 mph, along with observing numerous tree limbs down in the area.

BERRIEN COUNTY --- 0.7 N ST JOSEPH [42.11, -86.48]

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/18/10 14:13 EST		0	Thunderstorm Wind (EG 56 kt)
	07/18/10 14:14 EST		0	Source: Trained Spotter

A trained spotter estimated a 65 mph wind gust.

BERRIEN COUNTY --- 0.7 N ST JOSEPH [42.11, -86.48]

07/18/10 14:24 EST		0	Thunderstorm Wind (MG 70 kt)
07/18/10 14:25 EST	1	0	Source: Trained Spotter

A trained spotter measured an 80 mph wind gust. Several tents at the Venetian festival were blown over. One of the tents hit and destroyed a CSX railroad crossing signal, struck a man in the head knocking him over and eventually struck two mini vans. The man was treated at the scene for minor injuries.

CASS COUNTY --- 0.9 NW INDIAN LAKE [42.01, -86.21]

07/18/10 14:26 EST		0	Thunderstorm Wind (EG 55 kt)
07/18/10 14:27 EST		0	Source: Emergency Manager

Emergency management officials reported power lines down in State Route 62.

Convection developed over northeastern Illinois and moved into portions of far southern Lower Michigan. Dense cloud cover much of the day prevented widespread severe weather. However a few storms were able to produce isolated wind damage, especially as they came on shore from Lake Michigan.

BRANCH COUNTY --- 0.7 S COLDWATER [41.94, -85.00]

07/22/10 16:40 EST		0	Thunderstorm Wind (EG 60 kt)
07/22/10 16:41 EST		0	Source: Law Enforcement

Law enforcement officials reported numerous trees and power lines down south of Coldwater.

BRANCH COUNTY --- 1.2 N LACKWOOD [41.90, -85.05], 2.0 NE LACKWOOD [41.90, -85.02]

07/22/10 16:45 EST		0	Tornado (EF0, L: 1.46 mi , W: 300 yd)
07/22/10 16:47 EST		0	Source: Emergency Manager

Emergency management officials observed indications of a weak circulation touching down in a few locations along a roughly one and one half mile track. The circulation appears to have touched down just south of the intersection of Behnke and Fenn Roads causing some tree damage. The circulation then lifted and skipped to the east, touching down again south of Fenn Road, near Sanford Road where a chicken coop was destroyed as well as damage to a barn, silo, house and garden. The circulation continued east lifting and then touching down one last time north of Fenn road, near Fillmore Road where damage occurred to crops. Once the circulation crossed Fillmore Road it dissipated. Damage was consistent with an EF0 with estimated winds of around 70 mph.

A warm front was advancing north into southern Lower Michigan. Strong shear was in place along and south of the front. A supercell developed and tracked along the front, intensifying as it tracked towards Branch County. Reports of a wall cloud and funnels were received, with damage in a small area found to be consistent with a weak tornado.

BRANCH COUNTY --- 1.3 W GIRARD [42.03, -85.03]

07/23/10 18:40 EST		0	Thunderstorm Wind (EG 55 kt)
07/23/10 18:41 EST		0	Source: Emergency Manager

Emergency management officials reported a tree down onto power lines at Girard and Bell Roads.

BRANCH COUNTY --- 0.7 S COLDWATER [41.94, -85.00]

07/23/10 19:07 EST		0	Thunderstorm Wind (EG 55 kt)
07/23/10 19:08 EST		0	Source: Emergency Manager

Emergency management officials reported numerous trees down across the northern part of Coldwater.

BERRIEN COUNTY --- 0.9 NE NEW BUFFALO [41.79, -86.74]

07/23/10 19:11 EST		0	Thunderstorm Wind (EG 55 kt)
07/23/10 19:12 EST		0	Source: Law Enforcement

A state trooper reported trees down in New Buffalo.

BRANCH COUNTY --- 1.4 S BRONSON ARPT [41.86, -85.18]

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	07/23/10 19:23 EST		0	Thunderstorm Wind (MG 52 kt)
	07/23/10 19:24 EST		0	Source: Emergency Manager

Emergency management officials recorded winds of 60 mph southeast of Bronson.

ST. JOSEPH COUNTY --- 0.7 N CONSTANTINE [41.84, -85.67]

	07/23/10 20:00 EST		0	Thunderstorm Wind (EG 60 kt)
	07/23/10 20:01 EST		0	Source: NWS Employee

An off duty NWS employee reported multiple trees uprooted in the Constantine area.

BRANCH COUNTY --- 1.3 SSE LACKWOOD [41.86, -85.04]

	07/23/10 20:02 EST		0	Thunderstorm Wind (EG 55 kt)
	07/23/10 20:03 EST		0	Source: Emergency Manager

Emergency management officials reported power lines down in the Rose Lake area.

A hot and moist air mass was in place across southern Lower Michigan with temperatures in the 90s and dewpoints in the 70s. Strong wind fields in the lower levels were able to reach the ground in several locations causing damage.

BERRIEN COUNTY --- NILES [41.83, -86.25]

	07/24/10 08:00 EST		0	Thunderstorm Wind (EG 55 kt)
	07/24/10 08:01 EST		0	Source: Law Enforcement

Law enforcement officials reported large tree limbs down as well as a few trees in the Niles and Bertrand area.

A complex of thunderstorms moved along a frontal boundary across Lake Michigan and into far southern Lower Michigan. Some damage occurred in the Niles area before the storms weakened further.

(MI-Z077) BERRIEN

	07/25/10 18:51 EST	1	0	Rip Current
	07/25/10 19:30 EST		0	

Direct Fatalities: M26IW

Strong onshore winds created dangerous wave conditions along the far southeastern shores of Lake Michigan. A 26 year old man drowned after being swept out by a rip current near Silver Beach.

HILLSDALE COUNTY --- 0.5 W HILLSDALE [41.92, -84.63]

	07/28/10 14:05 EST		0	Thunderstorm Wind (EG 55 kt)
	07/28/10 14:06 EST		0	Source: Emergency Manager

Emergency management officials reported trees down across the northern part of the county.

ST. JOSEPH COUNTY --- KIRSCH MUNI ARPT [41.82, -85.45]

	07/28/10 14:16 EST		0	Thunderstorm Wind (EG 50 kt)
	07/28/10 14:17 EST		0	Source: Trained Spotter

Trained spotters reported numerous tree limbs down on Balk Road.

A moist and unstable air mass ahead of a cold front allowed for the development of thunderstorms from Lower Michigan into Illinois. A few of the storms produced damaging winds.

OHIO, Northwest

HENRY COUNTY --- 3.0 SSE MALINTA [41.28, -84.01]

	07/18/10 16:42 EST		0	Thunderstorm Wind (EG 55 kt)
	07/18/10 16:43 EST		0	Source: Emergency Manager

Emergency management officials reported power lines down on County Road 2 between County Road H and State Road 281.

Storm Data and Unusual Weather Phenomena - July 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
PUTNAM COUNTY --- 1.4 N LEIPSIC [41.12, -84.00]				
	07/18/10 16:50 EST	0		Thunderstorm Wind (EG 55 kt)
	07/18/10 16:51 EST	0		Source: Trained Spotter

A trained spotter reported a small field of sweet corn being flattened by the winds. In addition, a maple tree fell onto a power line on County Road 8.

Convection developed over northeastern Illinois and moved across portions of northern Indiana into northwestern Ohio. Dense cloud cover much of the day prevented widespread severe weather. However, some of the convection was able to tap strong wind fields aloft and cause some damage.

FULTON COUNTY --- 2.1 N BRAILEY [41.58, -83.92]				
	07/22/10 17:15 EST	0		Thunderstorm Wind (EG 55 kt)
	07/22/10 17:16 EST	0		Source: Utility Company

A local utility company reported large branches fell onto a power line, resulting in the line breaking and pole snapping.

An area of thunderstorms produced severe weather across far southern Lower Michigan and moved into northwestern Ohio along a warm front. While the majority of the storms remained below severe limits, isolated wind damage occurred in Fulton County.

ALLEN COUNTY --- 0.7 N SPENCERVILLE [40.71, -84.35]				
	07/28/10 17:55 EST	0		Thunderstorm Wind (EG 55 kt)
	07/28/10 17:56 EST	0		Source: Trained Spotter

A trained spotter reported tree limbs down. In addition, a boat and boat trailer were shifted a short distance.

A moist and unstable air mass ahead of a cold front allowed for the development of thunderstorms from Lower Michigan into Illinois. A few of the storms produced damaging winds.

Storm Data and Unusual Weather Phenomena - August 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
STARKE COUNTY --- 1.3 WSW TOTO [41.24, -86.72]				
	08/04/10 07:09 CST		0	Thunderstorm Wind (EG 55 kt)
	08/04/10 07:10 CST		0	Source: Law Enforcement
Law enforcement officials reported a large tree down across County Road 400 South, between Range Road and State Route 39.				
MIAMI COUNTY --- DENVER [40.87, -86.08]				
	08/04/10 09:06 EST		0	Thunderstorm Wind (EG 52 kt)
	08/04/10 09:07 EST		0	Source: Trained Spotter
A trained spotter reported winds of 55 to 60 mph as well as some pea size hail.				
WABASH COUNTY --- 0.7 N LAGRO [40.84, -85.73]				
	08/04/10 09:25 EST		0	Thunderstorm Wind (EG 55 kt)
	08/04/10 09:26 EST		0	Source: Law Enforcement
Law enforcement officials reported numerous trees down in the town of Lagro.				
BLACKFORD COUNTY --- HARTFORD CITY [40.45, -85.37]				
	08/04/10 10:28 EST		0	Thunderstorm Wind (EG 55 kt)
	08/04/10 10:29 EST		0	Source: Law Enforcement
Law enforcement officials reported numerous trees were blown down.				
A complex of strong to locally severe thunderstorms moved across Northern Indiana producing wind damage in some locations.				
CASS COUNTY --- 0.5 W GALVESTON [40.58, -86.19]				
	08/04/10 17:50 EST		0	Thunderstorm Wind (EG 60 kt)
	08/04/10 17:51 EST		0	Source: Trained Spotter
A trained spotter reported both a 100 foot and 60 foot tree were snapped at around the 20 foot level. Each tree ranged from 20 to 24 inches in diameter.				
An outflow boundary from morning convection and a upper level wave resulted in widespread convection across much of central Indiana. A few of these storms moved from Cass into Blackford counties, but damage was isolated.				
BLACKFORD COUNTY --- 3.0 SSW MONTPELIER [40.51, -85.30]				
	08/11/10 07:20 EST		50K	Lightning
	08/11/10 07:20 EST		0	Source: Newspaper
The local newspaper reported lightning was the cause of a barn fire in the 4200 block of East 400 North. The barn was fully engulfed in flames when fire fighters arrived. The building suffered extensive damage, estimated at around \$50,000. No details on contents or their extent of damage was provided.				
CASS COUNTY --- 4.7 NW LAKE CICOTT [40.82, -86.58]				
	08/11/10 07:43 EST		0	Thunderstorm Wind (EG 55 kt)
	08/11/10 07:44 EST		0	Source: Emergency Manager
Emergency management officials reported a few trees down onto power lines on County Road 400 North, near the Cass and White county lines.				
A weak upper level system and moderate instability allowed for thunderstorms to develop. A lack of overall shear resulted in the storms producing isolated wind damage as cells collapsed or cold pools established.				
WHITLEY COUNTY --- 2.9 NW CHURUBUSCO [41.26, -85.36]				
	08/15/10 12:33 EST		0	Thunderstorm Wind (EG 60 kt)
	08/15/10 12:34 EST		0	Source: Law Enforcement
Law enforcement officials reported multiple trees down as well as some corn flattened on County Road 700 North, between County Roads 650 and 750 East.				
NOBLE COUNTY --- 2.1 E GREEN CENTER [41.30, -85.33]				

Storm Data and Unusual Weather Phenomena - August 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/15/10 12:35 EST		0	Thunderstorm Wind (EG 55 kt)
	08/15/10 12:36 EST		0	Source: Trained Spotter

A trained spotter reported trees and power lines down in the southeastern portion of the county. A small area of corn, as well as a metal shed were damaged.

A cold front and upper level system, combined with a moist and unstable atmosphere, to produce widely scattered thunderstorms across northeastern Indiana. A few damaging wind gusts occurred but the main organization of the storms occurred as they left into portions of Ohio.

(IN-Z003) LA PORTE

08/22/10 15:14 EST	2	0	Rip Current
08/22/10 15:15 EST	2	0	

Direct Fatalities: M14IW, M17IW

A north to northwest wind moved in behind a cold front on August 21st. High pressure moved towards the western Great Lakes. This allowed for an extended period of higher winds and waves on far southeastern Lake Michigan with wave heights in the three to six foot range. This caused a high risk of rip currents. Eyewitnesses reported a rip current developed near a Michigan City pier. At least four swimmers were affected by this, with two males losing their lives.

LAKE MICHIGAN

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 0.9 NW MICHIGAN CITY [41.73, -86.91]

08/04/10 07:45 EST		0	Marine Thunderstorm Wind (MG 48 kt)
08/04/10 07:52 EST		0	Source: C-MAN Station

The Michigan City GLERL site recorded a 48 knot gust with sustained winds continuing above 35 knots for several minutes.

NEW BUFFALO TO ST JOSEPH MI COUNTY --- 0.7 W ST. JOSEPH HARBOR [42.10, -86.49]

08/04/10 08:25 EST		0	Marine Thunderstorm Wind (MG 37 kt)
08/04/10 08:42 EST		0	Source: Official NWS Observations

A NWS marine sensor recorded a 37 knot gust.

A complex of thunderstorms moved from northern Illinois across southern Lake Michigan. Strong winds moved on shore from the lake, eventually causing damage inland.

MICHIGAN, Extreme Southwest

BERRIEN COUNTY --- 0.2 NE LAKESIDE [41.85, -86.67]

08/04/10 08:04 EST		0	Thunderstorm Wind (EG 55 kt)
08/04/10 08:05 EST		0	Source: Trained Spotter

A trained spotter reported a tree blown down near the intersection of Lakeshore Drive and Lakeside road. In addition to the tree damage, blown transformers and downed power lines were tangled in some of the nearby trees.

BERRIEN COUNTY --- 1.7 NE LIVINGSTON [41.99, -86.52]

08/04/10 08:14 EST		0	Thunderstorm Wind (EG 55 kt)
08/04/10 08:15 EST		0	Source: Trained Spotter

A large tree was blown down, with power lines tangled in the tree, near the intersection of Date and West Linco Road.

BERRIEN COUNTY --- 0.9 NW COLOMA [42.19, -86.31]

08/04/10 08:37 EST		0	Thunderstorm Wind (EG 55 kt)
08/04/10 08:38 EST		0	Source: Trained Spotter

Storm Data and Unusual Weather Phenomena - August 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
A trained spotter reported a tree fell onto a house, taking power lines down with it. The downed power lines were trapping three people on the porch of the home. They were rescued without injury.				

A complex of strong to locally severe thunderstorms moved across far southern Lower Michigan producing wind damage in some locations.

CASS COUNTY --- 1.2 NE UNION [41.79, -85.85]				
	08/11/10 13:35 EST		0	Thunderstorm Wind (EG 55 kt)
	08/11/10 13:36 EST		0	Source: Trained Spotter

A trained spotter reported a healthy two to three foot diameter fell onto two trailers at Willow Lake Campgrounds.

A weak upper level system and moderate instability allowed for thunderstorms to develop. A lack of overall shear resulted in the storms producing isolated wind damage as cells collapsed or cold pools established.

(MI-Z077) BERRIEN				
	08/16/10 00:00 EST	1	0	Rip Current
	08/16/10 00:00 EST		0	

Direct Fatalities: M9IW

A strong pressure gradient developed across the Great Lakes, causing strong northwesterly winds and an increased risk of rip currents across far southeastern Lake Michigan. At least one rip current developed, this one being at a private beach in Chikaming Township, near Harbert in Berrien County.

OHIO, Northwest

WILLIAMS COUNTY --- 0.4 NNE EDGERTON [41.46, -84.75]				
	08/04/10 10:22 EST	1	0	Thunderstorm Wind (EG 55 kt)
	08/04/10 10:23 EST		0	Source: Newspaper

Local newspapers reported that a 18 year old male was killed as a result of strong winds blowing down a 12 foot high interior cinder block wall. The incident happened at a construction site at the Edgerton High School. No details were provided if the wall had been secured or was free standing.

Direct Fatalities: M18EQ

VAN WERT COUNTY --- 0.7 S CONVERSE [40.74, -84.42]				
	08/04/10 11:03 EST		0	Thunderstorm Wind (EG 60 kt)
	08/04/10 11:04 EST		0	Source: Emergency Manager

Emergency management officials reported damage from east of Elgin to east of Converse Road, south of 81. Four power poles were blown down as well as several corn fields being flattened. A few trees were blown down as well, but showed signs of rot.

ALLEN COUNTY --- 0.7 N SPENCERVILLE [40.71, -84.35]				
	08/04/10 11:11 EST		0	Thunderstorm Wind (EG 55 kt)
	08/04/10 11:12 EST		0	Source: Law Enforcement

Law enforcement officials reported a large tree down.

A complex of thunderstorms moved into northwestern Ohio from portions of northern Indiana. While the storms were weakening, isolated wind damage did occur, which resulted in one death at a construction site in Edgerton, Ohio.

HENRY COUNTY --- TEXAS [41.42, -83.95]				
	08/11/10 16:37 EST		0	Thunderstorm Wind (EG 55 kt)
	08/11/10 16:38 EST		0	Source: Law Enforcement

Law enforcement officials reported large tree limbs down on County Road 4A, just north of US 24.

PAULDING COUNTY --- 1.4 N PAULDING [41.15, -84.57]

Storm Data and Unusual Weather Phenomena - August 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	08/11/10 16:55 EST		0	Thunderstorm Wind (EG 55 kt)
	08/11/10 16:56 EST		0	Source: Emergency Manager

Emergency management officials reported shingles and siding blown off a house on County Road 117, just north of Highway 111. A six inch diameter tree was snapped, with a maple tree with signs of rot being blown over.

PAULDING COUNTY --- 3.0 SSE CECIL [41.18, -84.58]

08/11/10 16:55 EST	0	Thunderstorm Wind (MG 53 kt)
08/11/10 16:56 EST	0	Source: Trained Spotter

A weak upper level system and moderate instability allowed for thunderstorms to develop. A lack of overall shear resulted in the storms producing isolated wind damage as cells collapsed or cold pools established.

Storm Data and Unusual Weather Phenomena - September 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

LAKE MICHIGAN

MICHIGAN CITY IN TO NEW BUFFALO MI COUNTY --- 1.5 NNW MICHIGAN CITY [41.74, -86.91]

09/02/10 22:50 EST	0	0	Marine Thunderstorm Wind (MG 41 kt)
09/02/10 22:51 EST	0	0	Source: C-MAN Station

The Michigan City GLERL station recorded a 41 knot (47 mph) wind gust with a line of thunderstorms.

A line of thunderstorms moved across far southeastern Lake Michigan during the evening and overnight.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN

09/03/10 17:01 EST	1	0	Rip Current
09/03/10 17:02 EST	4	0	

Direct Fatalities: M26IW

Strong northwest winds created dangerous conditions on far southeastern Lake Michigan. Waves as high as 16 feet caused extremely strong rip currents, one of which resulted in the drowning of a 26 year old man from Chicago. Four rescuers were also injured.

BERRIEN COUNTY --- 0.7 S STEVENSVILLE [42.01, -86.52]

09/21/10 19:25 EST	0	0	Thunderstorm Wind (EG 56 kt)
09/21/10 19:26 EST	0	0	Source: Law Enforcement

Law enforcement officials reported multiple trees and power lines down in the Stevensville area.

BERRIEN COUNTY --- 1.2 SW LAKESHORE [42.04, -86.52]

09/21/10 19:35 EST	0	0	Thunderstorm Wind (EG 56 kt)
09/21/10 19:36 EST	0	0	Source: Trained Spotter

A trained spotter estimated winds of 60 to 65 mph north of Stevensville.

A line of thunderstorms moved out of southern Lake Michigan into far southern Lower Michigan during the evening hours of September 21st. Damaging winds occurred as the line came onshore in Berrien county, but no further reports of severe weather occurred across far southern Lower Michigan.

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
INDIANA, Northeast				
GRANT COUNTY --- 0.9 SE SWEETSERS [40.56, -85.76]				
	10/13/10 15:17 EST	0		Thunderstorm Wind (MG 56 kt)
	10/13/10 15:18 EST	0		Source: Trained Spotter
A trained spotter recorded a 64 mph wind gust as well as observing pea size hail.				
GRANT COUNTY --- 0.9 SE SWEETSERS [40.56, -85.76]				
	10/13/10 15:22 EST	0		Hail (1.00 in)
	10/13/10 15:23 EST	0		Source: Trained Spotter
A trained spotter reported hail to one inch in diameter.				
GRANT COUNTY --- 1.7 SE JALAPA [40.61, -85.73]				
	10/13/10 15:24 EST	0		Thunderstorm Wind (EG 56 kt)
	10/13/10 15:25 EST	0		Source: Public
The public reported power lines down at County Road 400 North and 300 West.				
GRANT COUNTY --- 0.7 E DAVIS [40.58, -85.62]				
	10/13/10 15:28 EST	0		Hail (1.75 in)
	10/13/10 15:29 EST	0		Source: Law Enforcement
Law enforcement officials reported golf ball size hail at the intersection of County Road 200 North and 300 East.				
GRANT COUNTY --- 0.5 E SHADY HILLS [40.57, -85.66]				
	10/13/10 15:30 EST	0		Hail (1.75 in)
	10/13/10 15:31 EST	0		Source: Trained Spotter
A trained spotter reported golf ball size hail.				
GRANT COUNTY --- 0.6 ESE SHADY HILLS [40.57, -85.66]				
	10/13/10 15:30 EST	0		Thunderstorm Wind (EG 60 kt)
	10/13/10 15:31 EST	0		Source: Trained Spotter
A trained spotter reported damage to the wall of a building at Bradford Avenue and Washington Street.				
GRANT COUNTY --- 0.9 SE SHADY HILLS [40.56, -85.66]				
	10/13/10 15:30 EST	0		Hail (1.50 in)
	10/13/10 15:31 EST	0		Source: Trained Spotter
GRANT COUNTY --- 1.1 NNW HOME CORNER [40.54, -85.66]				
	10/13/10 15:30 EST	0		Thunderstorm Wind (EG 56 kt)
	10/13/10 15:31 EST	0		Source: Trained Spotter
A trained spotter reported a billboard was blown over at 29th and Adams Street.				
GRANT COUNTY --- 1.5 SSE DAVIS [40.56, -85.62]				
	10/13/10 15:32 EST	0		Hail (1.00 in)
	10/13/10 15:33 EST	0		Source: Public
Quarter size hail was reported near County Road 300 East and State Route 18.				
GRANT COUNTY --- 1.7 SW SHADY HILLS [40.55, -85.69]				
	10/13/10 15:35 EST	0		Thunderstorm Wind (EG 56 kt)
	10/13/10 15:36 EST	0		Source: Trained Spotter
A trained spotter reported large tree limbs down on 9th Street and Miller Avenue.				

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
JAY COUNTY --- 0.7 S BALBEC [40.52, -85.15]				
	10/13/10 16:15 EST		0	Hail (0.75 in)
	10/13/10 16:16 EST		0	Source: Trained Spotter
A trained spotter reported penny size hail.				
A strong upper level system allowed for mainly showers across much of the area. However, a thunderstorm developed over Carroll County and moved across Grant and Jay Counties. Even though surface dewpoints were only in the upper 40s, steep mid level lapse rates and a freezing level around 8500 feet, allowed for efficient hail production and isolated downburst winds.				
LA PORTE COUNTY --- 0.3 ESE WANATAH [41.43, -86.89], 2.0 NE WANATAH [41.45, -86.87]				
	10/26/10 07:42 CST		0.50M	Tornado (EF1, L: 1.89 mi , W: 150 yd)
	10/26/10 07:44 CST		0	Source: NWS Storm Survey
A survey of damage near the town of Wanatah, plus numerous eye witness reports, confirmed a tornado rapidly touched down north of West Bailey Road and east of US 421 in an open field. A funnel cloud was tracked by emergency personnel as it approached the south side of the town before touching down. The circulation then struck several structures at the Hoosier Machinery Solutions, destroying them. The largest structure was a 50 foot by 200 foot open shelter that as destroyed and debris was carried nearly a mile northeast before being dropped in a field. A security camera recorded the destruction of the shelter. The tornado then quickly crossed US 30 east of US 421 clipping the garage of a residence and blowing the garage door in and a large portion of the roof over the garage off and into an adjacent field. In addition, the walls of a barn were pushed, causing it to lean, but not collapse. The last damage noted was some roof damage at a residence on South 900 West, north of US 30. The circulation then lifted. Maximum winds are estimated at around 90 mph.				
WHITLEY COUNTY --- 0.9 SW COLUMBIA CITY [41.16, -85.49]				
	10/26/10 08:45 EST		0	Thunderstorm Wind (EG 56 kt)
	10/26/10 08:46 EST		0	Source: Trained Spotter
A trained spotter reported a 64 mph wind gust.				
MIAMI COUNTY --- 1.4 N AMBOY [40.62, -85.93]				
	10/26/10 09:00 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:01 EST		0	Source: Emergency Manager
Emergency management officials reported a power pole down on State Road 19, just north of Amboy.				
GRANT COUNTY --- 0.7 N NORMAL [40.48, -85.83]				
	10/26/10 09:07 EST		0	Thunderstorm Wind (MG 58 kt)
	10/26/10 09:08 EST		0	Source: Trained Spotter
A trained spotter reported a 67 mph wind gust at the intersection of State Roads 35 and 13.				
HUNTINGTON COUNTY --- 0.7 S BIPPUS [40.94, -85.62]				
	10/26/10 09:14 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:15 EST		0	Source: Emergency Manager
Emergency management officials reported severe damage to a home on Bracken Road. Numerous trees and power lines were down in the area.				
WABASH COUNTY --- WABASH [40.80, -85.82]				
	10/26/10 09:17 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:18 EST		0	Source: Emergency Manager
Emergency management officials reported several trees and power lines down in and around Wabash.				
WABASH COUNTY --- 1.5 NW WABASH [40.82, -85.84], 2.6 ENE SPEICHERVILLE [40.87, -85.76]				
	10/26/10 09:18 EST		0	Tornado (EF0, L: 5.76 mi , W: 100 yd)
	10/26/10 09:21 EST		0	Source: NWS Storm Survey
A survey of damage indicated that a circulation, embedded within a larger area of straight-line winds, touched down at the intersection of US 24 and State Highway 15, on the north side of Wabash. Winds from the tornado blew in a door and pushed out a few sky lights as well as shifted a HVAC unit on top of the building. The tornado continued northeast, removing much of the roof of a vocational center building, and then some metal roofing from an older grain storage barn. A few utility poles were bent or snapped towards the end of the tornado track. The tornado dissipated near the intersection of County Roads 300 North and 100 East. Maximum wind speeds are estimated at between 80 and 85 mph, with a maximum width of 100 yards.				

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
GRANT COUNTY --- 0.9 SE SHADY HILLS [40.56, -85.66]				
	10/26/10 09:20 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:21 EST		0	Source: Trained Spotter
A trained spotter reported numerous trees down in the city of Marion.				
GRANT COUNTY --- 3.2 W UPLAND [40.47, -85.54], 2.3 WNW UPLAND [40.48, -85.52]				
	10/26/10 09:20 EST		0	Tornado (EF1, L: 1.13 mi , W: 100 yd)
	10/26/10 09:22 EST		0	Source: NWS Storm Survey
A survey of damage found evidence of a circulation touching down roughly one quarter mile north of the intersection of County Road 600 South and 700 East. The tornado then quickly moved northeast. Initial damage occurred to a house, which had some windows broken, garage door and roof damage. As the tornado continued it moved across the Jefferson Cemetery, lifting turning and blowing over several gravestones. A small building at the cemetery was lifted and moved 15 feet. The tornado then struck a hardware store, blowing in the south side wall and blowing in the north side door. The circulation lifted near the intersection of County Roads 500 South and 800 East. The maximum width was around 100 yards with maximum wind speeds estimated at around 100 mph.				
HUNTINGTON COUNTY --- 1.6 W LUTHER [41.00, -85.60], 1.4 W LUTHER [41.00, -85.60]				
	10/26/10 09:21 EST		0	Tornado (EF0, L: 0.28 mi , W: 75 yd)
	10/26/10 09:22 EST		0	Source: NWS Storm Survey
A survey of damage confirmed a circulation touched down in an open field and moved rapidly northeast near the Huntington and Whitley County line. The tornado caused damage to a barn and garage before moving into Whitley County.				
WHITLEY COUNTY --- 1.4 W LUTHER [41.00, -85.60], 1.5 NNW LUTHER [41.02, -85.58]				
	10/26/10 09:22 EST		0	Tornado (EF0, L: 1.62 mi , W: 175 yd)
	10/26/10 09:24 EST		0	Source: NWS Storm Survey
The tornado continued from Huntington County across open fields, snapping a few small trees along its path. The tornado destroyed several small metal grain bins and damaged some farm outbuildings. Debris was found twisted and thrown several yards to the northeast. Maximum wind speeds are estimated at around 75 mph.				
HUNTINGTON COUNTY --- 0.7 S BIPPUS [40.94, -85.62]				
	10/26/10 09:30 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:31 EST		0	Source: Trained Spotter
A trained spotter was pushed roughly a quarter mile down the road. A large tree fell onto a house causing significant damage.				
HUNTINGTON COUNTY --- 1.3 WSW HUNTINGTON [40.87, -85.50]				
	10/26/10 09:30 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:31 EST		0	Source: Trained Spotter
A trained spotter reported that a swimming pool and the deck surrounding it were ripped off the base and blown into a yard on Waterworks Road.				
HUNTINGTON COUNTY --- 0.3 E BRACKEN [40.98, -85.61], 0.8 NE BRACKEN [40.99, -85.61]				
	10/26/10 09:31 EST		0.10M	Tornado (EF1, L: 0.67 mi , W: 75 yd)
	10/26/10 09:32 EST		0	Source: NWS Storm Survey
A survey of damage indicated a circulation touched down near the intersection of County Road 825 West and Bracken Road. The circulation lifted near the intersection of County Roads 1100 North and 825 West. A grain bin was destroyed with several outbuildings suffering extensive damage. Wood projectiles from the outbuildings were lodged in the roof of a house on the property, with concrete blocks being picked up and lofted onto the roof of a small building. The debris was blown up to a mile away as the circulation lifted near the intersection of County Road 1100 North and 825 West.				
KOSCIUSKO COUNTY --- 1.9 NE WARSAW ARPT [41.30, -85.82], 1.8 WSW OSWEGO [41.31, -85.81]				
	10/26/10 09:31 EST		0	Tornado (EF0, L: 0.93 mi , W: 30 yd)
	10/26/10 09:32 EST		0	Source: NWS Storm Survey
A survey of damage north of Warsaw indicated a weak circulation touched down just to the southeast of the intersection of County Roads 450 North and 100 East, in the North Winds subdivision. Minor damage occurred in the subdivision with shingle damage to one roof and a swing and trampoline being thrown into a pond adjacent to 450 North. The tornado then crossed 450 North where the southeast portion of a corn field ready for harvest was flattened and a few tree tops and limbs were snapped. The circulation lifted near County Road 175 East just south of the Tippecanoe River where a power pole was snapped and antenna bent. The maximum width of the tornado was around 30 yards with estimated winds of around 80 mph.				

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
WHITLEY COUNTY --- 1.3 WSW TUNKER [41.04, -85.57]				
	10/26/10 09:35 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:36 EST		0	Source: Emergency Manager
Emergency management officials reported portion of a roof from a church was ripped off and a nearby grain bin destroyed on County Road 1000 South near State Road 5.				
WELLS COUNTY --- 1.5 SW PONETO [40.63, -85.24]				
	10/26/10 09:37 EST		0.10M	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:38 EST		0	Source: Newspaper
A barn was destroyed, which contained three horses. Two of the horses were rescued, with the third being killed from the weight of the barn. Debris was pushed to the adjacent rail road tracks to the east.				
WELLS COUNTY --- 2.8 S VERA CRUZ [40.66, -85.07]				
	10/26/10 09:39 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:40 EST		0	Source: Newspaper
A local newspaper reported a barn roof was removed and lifted over a house.				
ELKHART COUNTY --- 1.0 E NEW PARIS [41.50, -85.81]				
	10/26/10 09:40 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:41 EST		0	Source: Amateur Radio
An amateur radio operator reported a tree down at County Roads 29 and 46.				
WELLS COUNTY --- 0.7 N BLUFFTON [40.74, -85.17]				
	10/26/10 09:40 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:41 EST		0	Source: Law Enforcement
Law enforcement officials reported the roof of a barn being ripped off on County Road 100 West.				
WHITLEY COUNTY --- LAUD [41.05, -85.45]				
	10/26/10 09:40 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:41 EST		0	Source: Emergency Manager
Emergency management officials reported a church was damaged with shingles being ripped off and some broken windows. Several large trees were down across a local street.				
WHITLEY COUNTY --- 2.8 WSW COLUMBIA CITY ARPT [41.11, -85.47], 2.0 NW COLUMBIA CITY ARPT [41.14, -85.45]				
	10/26/10 09:42 EST		0	Tornado (EF1, L: 2.19 mi , W: 150 yd)
	10/26/10 09:44 EST		0	Source: NWS Storm Survey
A survey of wind damage near Columbia City confirmed a circulation touched down one half mile north of the intersection of County Road 400 South and State Road 9. Damage occurred to the outer portions of a wooded area where several tree suffered limb damage. As the tornado continued northeast, several structures suffered varying degrees of damage ranging from two barns being destroyed to several homes suffering siding or shingle damage. Several hardwood trees were either uprooted or snapped along the track. (DI: TH DOD 4). Maximum wind speeds are estimated at between 100 and 105 mph with a maximum width of 150 yards.				
ELKHART COUNTY --- MILLERSBURG [41.52, -85.70]				
	10/26/10 09:43 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 09:44 EST		0	Source: NWS Employee
An off duty NWS meteorologist reported maximum wind gusts to 75 mph.				
KOSCIUSKO COUNTY --- 0.7 N VAWTER PARK [41.41, -85.70]				
	10/26/10 09:44 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:45 EST		0	Source: Trained Spotter
A trained spotter reported a one foot diameter tree limb down near Lake Wawasee.				
WHITLEY COUNTY --- 2.3 SSE COLUMBIA CITY [41.14, -85.46]				

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	10/26/10 09:45 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 09:46 EST		0	Source: Emergency Manager

Emergency management officials reported two barns destroyed and multiples houses damaged with large trees down onto the houses.

WELLS COUNTY --- 0.7 N BLUFFTON [40.74, -85.17]

	10/26/10 10:00 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 10:01 EST		0	Source: Trained Spotter

A trained spotter reported an 18 inch tree limb being blown down onto the porch of a house.

ALLEN COUNTY --- 2.1 N ZULU [41.06, -84.90], 2.5 SE GAR CREEK [41.08, -84.89]

	10/26/10 10:02 EST		0	Tornado (EF0, L: 1.22 mi , W: 175 yd)
	10/26/10 10:03 EST		0	Source: NWS Storm Survey

A survey of damage indicated a circulation touched down on Roussey Road, between Rorick and Howe Roads, where a barn door was ripped off and a large tree blown over. The tornado continued northeast destroying a barn. A home on the property suffered projectile damage from pieces of the barn into the roof as well as window damage. The last damage noted from the tornado was four open air train cars being blown off the tracks onto their sides. Debris from the barn was found near the location of where the tornado dissipated on Edgerton Road between Roussey and Sampson Roads.

ALLEN COUNTY --- MONROEVILLE [40.97, -84.87]

	10/26/10 10:03 EST		0	Thunderstorm Wind (MG 65 kt)
	10/26/10 10:04 EST		0	Source: Trained Spotter

A trained spotter reported wind gusts measures to 75 mph with power lines down in Monroeville.

ALLEN COUNTY --- 1.6 WNW MILAN CENTER [41.15, -84.98], 2.4 E HURSH [41.25, -84.92]

	10/26/10 10:04 EST		0	Tornado (EF1, L: 6.99 mi , W: 150 yd)
	10/26/10 10:08 EST		0	Source: NWS Storm Survey

A survey of damage confirmed a circulation touched down within a larger area of straight line winds near the intersection of Graber and Maysville Roads. Several trees were damaged ranging from broken limbs to uprooting at the touchdown point. The tornado continued northeast where several pole barns and smaller structures were damaged with the severity ranging from moderate roof and wall damage to being destroyed. Power lines and poles were also blown down in a few locations. While the damage swath was roughly a half mile wide, much of this was from wind damage with the actual circulation was within a 150 yard wide area.

ALLEN COUNTY --- 1.5 SSW GRABILL [41.20, -84.98]

	10/26/10 10:07 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 10:08 EST		0	Source: Law Enforcement

Law enforcement officials reported a barn was destroyed and a propane tank lifted off its cement foundation.

Rapidly deepening low pressure over the plains, allowed for an extremely strong wind flow at all levels. The system which eventually dropped to a center pressure of 955 mb tracked northeast into Canada, dragging a powerful cold front through the area. Individual storms eventually congealed into a Line Echo Wave Pattern that moved across much of northern Indiana. Numerous mesocyclones were observed on the line, which resulted in pockets of wind damage as well as weak tornadoes briefly developing.

(IN-Z004) ST. JOSEPH

	10/27/10 15:50 EST	1	0	Strong Wind (MAX 43 kt)
	10/27/10 15:51 EST		0	

Direct Fatalities: M20BF

The same low that caused numerous tornadoes and thunderstorm wind damage also caused very strong winds to move in for several hours across northern Indiana. Winds were sustained in the 30 to 40 mph range in many locations with gusts over 50 mph in a few spots. The strongest winds remained above the surface due to cloud cover. A 20 year old Notre Dame student was killed after being thrown from a scissor lift videotaping a football practice.

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
BERRIEN COUNTY --- 2.3 ENE RIVERSIDE [42.20, -86.34], 2.3 ENE RIVERSIDE [42.20, -86.34]				
	10/24/10 21:50 EST		0	Tornado (EF0, L: 0.08 mi , W: 35 yd)
	10/24/10 21:51 EST		0	Source: NWS Storm Survey

A survey of damage suggested a circulation briefly touched down northwest of Coloma. The tornado caused minor damage to two homes as well as removing a barn roof. The tornado quickly lifted, only on the ground a tenth of a mile. Maximum winds are estimated at around 70 mph.

BERRIEN COUNTY --- 0.9 NW (BEH)ROSS ARPT BNTN [42.14, -86.44]				
	10/24/10 22:43 EST		0	Thunderstorm Wind (MG 51 kt)
	10/24/10 22:44 EST		0	Source: ASOS

The Automated Surface Observation system at Benton Harbor recorded a 59 mph wind gust.

BERRIEN COUNTY --- 0.7 S LAKE MICHIGAN BEACH [42.21, -86.38]				
	10/24/10 22:48 EST		0	Thunderstorm Wind (EG 55 kt)
	10/24/10 22:49 EST		0	Source: Law Enforcement

Law enforcement officials reported a large tree down onto power lines in the Hagar township area.

The southern fringe of an upper level system, combined in modest instability, allowed for the development of widely scattered thunderstorms. A few reached severe limits with a brief tornado near Coloma.

OHIO, Northwest

VAN WERT COUNTY --- 3.4 SSE DIXON [40.90, -84.77], 2.1 W CONVOY [40.93, -84.74]				
	10/26/10 10:02 EST		0	Tornado (EF0, L: 2.04 mi , W: 80 yd)
	10/26/10 10:06 EST		0	Source: Emergency Manager

The circulation touched down roughly 3.5 miles southwest of Convey, near the intersection of Tully Harrison and Mentzer Church Roads. After touchdown, the tornado flipped a stationary large semi trailer and camper, as well as tearing the roof off of a barn. The tornado continued northeast to Convey Road, between Van Horn and Lare Road. Roughly half of the roof was torn off a home and thrown around 100 yards to the northeast, with a windmill being carried roughly 40 yards. An additional house suffered roof damage as well as the circulation continued northeast. The tornado crossed Lare Road where it destroyed a small barn before lifting. The debris was found three quarters of a mile away. Maximum winds are estimated at around 80 mph.

VAN WERT COUNTY --- 2.1 W SCOTT [40.98, -84.61], 1.9 WNW SCOTT [40.99, -84.60]				
	10/26/10 10:12 EST		0	Tornado (EF1, L: 0.76 mi , W: 100 yd)
	10/26/10 10:13 EST		0	Source: NWS Storm Survey

A survey of storm damage revealed a circulation touched down on John Brown Road, about one half mile south of the Van Wert-Paulding county line. Shortly after touchdown the tornado destroyed a small grain bin at a local farm. The tornado continued northeast across open fields where it crossed the county line east of John Brown Road. While the rating of the entire tornado track is consistent with an EF1, the damage in Van Wert County is consistent with winds of around 80 mph, an EF0.

PAULDING COUNTY --- 2.4 SSW HAVILAND [40.99, -84.60], 1.3 N BROUGHTON [41.10, -84.53]				
	10/26/10 10:13 EST		0	Tornado (EF1, L: 8.50 mi , W: 100 yd)
	10/26/10 10:17 EST		0	Source: NWS Storm Survey

This tornado is a continuation of Van Wert County circulation. The circulation remained over open fields as it moved towards Haviland. As the tornado passed through town, a garage door was blown in, with numerous houses suffering shingle damage and scattered tree damage. As the circulation continued rapidly northeast, a total of three barns were damaged, with two of the barns destroyed and the third having a large door ripped off. A house suffered siding damage mainly from debris striking the house. The debris resulted in a few windows being broken with at least 2 boards being driven into a wall and roof portion. The debris was carried roughly one half mile towards the northeast. The tornado then crossed near County Roads 117 and 72, where two large trees were uprooted and a house sustained window and roof damage. The last damage was found in the town of Broughton where a house and trees sustained damage. The debris from this damage was found in a field to the northeast, where it appeared to have lifted near County Road 102, east of County Road 123. Maximum sustained winds were estimated to be around 100 mph.

VAN WERT COUNTY --- 1.0 E VAN WERT [40.87, -84.55]				
	10/26/10 10:20 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 10:21 EST		0	Source: Emergency Manager

Emergency management officials reported a semi was rolled on US 30.

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
PAULDING COUNTY --- 2.7 SSE OAKWOOD [41.06, -84.35], 2.3 SE OAKWOOD [41.07, -84.34]				
	10/26/10 10:29 EST		0	Tornado (EF1, L: 0.79 mi , W: 175 yd)
	10/26/10 10:30 EST		0	Source: NWS Storm Survey
<p>A survey of damage near the Paulding and Putnam County line confirmed a circulation touched down on County Road 205, between County Road 263 and Township Highway T-211. Trees were damaged near the point of touchdown, with a barn suffered roof damage. The tornado tracked over open fields for nearly a mile before crossing into Putnam County, north of Township Road G-24. While the maximum intensity of the tornado track has been determined to be an EF1, the damage in Paulding County is consistent with EF0 damage and maximum estimated winds of around 80 mph.</p>				
PUTNAM COUNTY --- 2.8 NW DUPONT [41.07, -84.34], 2.1 SSW RICE [41.12, -84.30]				
	10/26/10 10:30 EST		0	Tornado (EF1, L: 4.08 mi , W: 175 yd)
	10/26/10 10:33 EST		0	Source: NWS Storm Survey
<p>This tornado is a continuation of the Paulding County tornado, which crossed into Putnam County. The tornado continued rapidly northeast, damaging several barns at a property on the east side of County Road 263, north of Township Road G. One barn was destroyed with two others suffering significant damage. In addition to the barn damage, a detached garage for the residence was destroyed and a corn crib was pushed four feet off its foundation. Additional damage was found along State Route 613, west of County Road 24, where trees were damaged and a home suffered the loss of some shingles, as well as near County Highway E and County Road 24. The last damage was found near the intersection of Township Road D and Township Highway 23 where the roof of a barn was torn off. The debris was thrown into an adjacent field, with the circulation then lifting. Maximum winds are estimated at around 100 mph.</p>				
DEFIANCE COUNTY --- 3.9 NE NEY [41.41, -84.46]				
	10/26/10 10:35 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 10:36 EST		0	Source: Emergency Manager
<p>Emergency management officials reported eight power poles down along Scott Road.</p>				
PUTNAM COUNTY --- 1.0 W CONTINENTAL [41.10, -84.29]				
	10/26/10 10:35 EST		0	Thunderstorm Wind (EG 65 kt)
	10/26/10 10:36 EST		0	Source: Emergency Manager
<p>Emergency management officials reported several barns destroyed at Ohio 613 and 634.</p>				
DEFIANCE COUNTY --- 2.8 N MARK CENTER [41.32, -84.63]				
	10/26/10 10:36 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 10:37 EST		0	Source: Emergency Manager
<p>Emergency management officials reported a car port was blown into the tree tops of a local residence.</p>				
FULTON COUNTY --- 1.5 NNW ARCHBOLD [41.54, -84.31]				
	10/26/10 10:45 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 10:46 EST		0	Source: Trained Spotter
<p>A trained spotter reported trees and power lines down near the intersection of State Route 2 and 66.</p>				
ALLEN COUNTY --- 1.7 SSW FT SHAWNEE [40.66, -84.13], 1.0 SE FT SHAWNEE [40.67, -84.11]				
	10/26/10 11:02 EST		8K	Tornado (EF0, L: 1.39 mi , W: 20 yd)
	10/26/10 11:03 EST		0	Source: NWS Storm Survey
<p>This tornado was a continuation of the track of the Cridersville EF2 tornado. The tornado again briefly lifted prior to the Auglaize and Allen county line and then touched down again in Allen County near McClain Road, north of Hume Road. At this location a quarter of a metal roof was pulled off of a metal barn. No further damage was found beyond this location. Damage is estimated at around \$8000.</p>				
ALLEN COUNTY --- 1.4 W LIMA [40.75, -84.13]				
	10/26/10 11:10 EST		0	Thunderstorm Wind (MG 61 kt)
	10/26/10 11:11 EST		0	Source: Trained Spotter
<p>A trained spotter reported a 70 mph wind gust near Heritage Elementary school.</p>				
ALLEN COUNTY --- 2.1 N ELMVIEW [40.71, -84.15]				

Storm Data and Unusual Weather Phenomena - October 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
	10/26/10 11:10 EST		0	Thunderstorm Wind (EG 60 kt)
	10/26/10 11:11 EST		0	Source: Law Enforcement

Law enforcement officials reported numerous trees and power lines down.

Rapidly deepening low pressure over the plains, allowed for an extremely strong wind flow at all levels. The system which eventually dropped to a central pressure of 955 mb tracked northeast into Canada, dragging a powerful cold front through the area. Individual storms eventually congealed into a Line Echo Wave Pattern that moved across northwestern Ohio. Numerous misocyclones were observed on the line, which resulted in pockets of wind damage as well as weak tornadoes briefly developing.

Storm Data and Unusual Weather Phenomena - December 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	----------------------	------------------------	------------------------

INDIANA, Northeast

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z014) MARSHALL, (IN-Z016) KOSCIUSKO

12/04/10 23:00 EST	0	Lake-Effect Snow
12/07/10 19:00 EST	0	

(IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z017) WHITLEY, (IN-Z018) ALLEN

12/05/10 09:00 EST	0	Winter Weather
12/07/10 19:00 EST	0	

A long duration lake effect snow event dropped accumulating snow on much of northern Indiana between December 5th and December 7th. Snowfall totals ranged from 3-5 inches in the Fort Wayne area to around 10 inches in South Bend. Gusty winds within these snow bands created widespread blowing and drifting snow.

(IN-Z003) LA PORTE, (IN-Z004) ST. JOSEPH, (IN-Z005) ELKHART, (IN-Z006) LAGRANGE, (IN-Z007) STEUBEN, (IN-Z008) NOBLE, (IN-Z009) DE KALB, (IN-Z012) STARKE, (IN-Z014) MARSHALL, (IN-Z016) KOSCIUSKO, (IN-Z017) WHITLEY, (IN-Z018) ALLEN, (IN-Z026) WELLS

12/12/10 04:00 EST	0	Winter Storm
12/13/10 15:00 EST	0	

A deepening area of low pressure tracked eastward near the Interstate 80 corridor in Indiana and Ohio. Precipitation initially began as rain on December 11th, before transitioning to moderate snow on the 12th as colder air filtered in on the backside of this low pressure system. Snowfall totals generally ranged between 3 and 6 inches. Wind gusts of 25 to 35 mph created widespread blowing and drifting snow.

(IN-Z003) LA PORTE, (IN-Z012) STARKE, (IN-Z013) PULASKI, (IN-Z020) WHITE

12/12/10 20:00 EST	0	Lake-Effect Snow
12/14/10 08:00 EST	0	

A long duration, intense, lake effect single band set up over northwest Indiana late on December 12th through the morning hours of December 14th. Total snowfall accumulations of 15-30 inches were reported, with blizzard conditions at times given the associated gusty winds and low visibilities.

MICHIGAN, Extreme Southwest

(MI-Z077) BERRIEN, (MI-Z078) CASS

12/05/10 02:00 EST	0	Lake-Effect Snow
12/07/10 19:00 EST	0	

(MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH

12/05/10 09:00 EST	0	Winter Weather
12/07/10 19:00 EST	0	

Multiple lake effect snow bands dropped accumulating snow across much of southwest Lower Michigan December 5th through December 7th. The heaviest snow fell across Berrien and Cass counties. Gusty winds within these snow bands created widespread blowing and drifting snow.

(MI-Z078) CASS, (MI-Z079) ST. JOSEPH, (MI-Z080) BRANCH, (MI-Z081) HILLSDALE

12/12/10 05:00 EST	0	Winter Storm
12/13/10 15:00 EST	0	

A deepening area of low pressure tracked eastward near the Interstate 80 corridor in Indiana and Ohio. Precipitation initially began as rain on December 11th, before transitioning to moderate snow on the 12th as colder air filtered in on the backside of this low pressure system. Snowfall totals generally ranged between 3 and 6 inches. Wind gusts of 25 to 35 mph created widespread blowing and drifting snow.

(MI-Z077) BERRIEN

12/12/10 10:00 EST	0	Lake-Effect Snow
12/14/10 08:00 EST	0	

Storm Data and Unusual Weather Phenomena - December 2010

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
----------	-----------	-------------------	---------------------	------------------------

A long duration, intense, lake effect single band set up over southwest Berrien Coutny in southwest Lower Michigan late on December 12th through the morning hours of December 14th. Total snowfall accumulations of 10-20 inches were reported, with blizzard conditions at times given the associated gusty winds and low visibilities.

OHIO, Northwest

(OH-Z001) WILLIAMS, (OH-Z002) FULTON, (OH-Z004) DEFIANCE, (OH-Z005) HENRY, (OH-Z015) PAULDING, (OH-Z016) PUTNAM, (OH-Z024) VAN WERT, (OH-Z025) ALLEN

12/12/10 06:00 EST	0	Winter Storm
12/13/10 15:00 EST	0	

A deepening area of low pressure tracked eastward near the Interstate 80 corridor in Indiana and Ohio. Precipitation initially began as rain on December 11th, before transitioning to heavy snow on the 12th as colder air filtered in on the backside of this low pressure system. Snowfall totals generally ranged between 3 and 6 inches. Wind gusts of 25 to 35 mph created widespread blowing and drifting snow.