

Storm Data and Unusual Weather Phenomena - May 2015

Location	Date/Time	Deaths & Injuries	Property & Crop Dmg	Event Type and Details
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ILLINOIS, South

WILLIAMSON COUNTY --- 2.0 N MARION [37.76, -88.93]

05/08/15 12:55 CST			20K	Thunderstorm Wind (EG 52 kt)
05/08/15 12:55 CST			0	Source: Utility Company

Several trees and cable television lines were down near Route 37. A very large tree limb landed on a house.

SALINE COUNTY --- CARRIERS MILLS [37.68, -88.65]

05/08/15 13:50 CST			0	Thunderstorm Wind (EG 52 kt)
05/08/15 13:50 CST			0	Source: Law Enforcement

Law enforcement personnel estimated wind gusts up to 60 mph with heavy rain.

Thunderstorms slowly increased during the midday hours in advance of a mesoscale convective vortex approaching from southeast Missouri. Partial sunshine resulted in moderate instability, with mixed-layer cape values near 1000 j/kg. Winds aloft were unfavorable for organized storm structures, with deep-layer shear only near 20 knots. The combination of moderate instability and relatively high precipitable water values resulted in a couple of wet microbursts.

JEFFERSON COUNTY --- MT VERNON [38.32, -88.90]

05/10/15 17:50 CST		1	45K	Thunderstorm Wind (EG 52 kt)
05/10/15 17:50 CST			0	Source: Broadcast Media

Numerous tree limbs and power lines were blown down, along with a couple of large trees. A large tree limb blew across two mobile homes, killing a 72-year-old man who was in the mobile home closest to the tree. The man died from blunt-force trauma caused by the tree limb, which was about 20 inches in diameter. His mobile home was destroyed. The second mobile home received only minor damage.

Direct Fatalities: M72MH

A squall line over eastern Missouri moved east across southern Illinois, producing locally strong winds. Southwesterly deep-layer wind shear around 30 knots was sufficient to maintain the squall line within a moderately unstable atmosphere. The squall line was associated with an upper-level low over South Dakota. A mid-level jet streak rotated northeast from the southern Plains into the Ozarks and Mid-Mississippi Valley.

WILLIAMSON COUNTY --- MARION [37.73, -88.93]

05/30/15 13:18 CST			6K	Thunderstorm Wind (EG 52 kt)
05/30/15 13:18 CST			0	Source: Broadcast Media

Trees were blown down onto power lines.

WABASH COUNTY --- MT CARMEL [38.42, -87.77]

05/30/15 15:40 CST			2K	Thunderstorm Wind (MG 52 kt)
05/30/15 15:40 CST			0	Source: Trained Spotter

A large tree limb landed on a mobile home. A trained spotter measured a wind gust to 60 mph.

A few isolated damaging wind gusts occurred with bands of northeastward moving thunderstorms. Weak to moderate instability and deep, unidirectional southwesterly flow aloft helped to maintain the storms. A 500 mb shortwave trough over the Ozarks moved northeast to the vicinity of the Ohio and Mississippi River confluence by mid-afternoon. A weak surface low pressure center moved northeast from southeast Missouri into south central Illinois.

INDIANA, Southwest

GIBSON COUNTY --- 1.0 E BUCKSKIN [38.23, -87.40]

05/30/15 14:45 CST		1	2K	Thunderstorm Wind (EG 50 kt)
05/30/15 14:45 CST		1	0	Source: Emergency Manager

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A small child was killed when a tree limb landed on her. The incident occurred at an outdoor family reunion. The tree limb fell about 50 feet, striking a father and his daughter. The father was hospitalized with a broken neck and other injuries. The young girl died in the hospital a couple of days later. There were a couple of other downed tree limbs in the immediate area.

Direct Fatalities: F1OU

POSEY COUNTY --- WADESVILLE [38.10, -87.78], GRIFFIN [38.20, -87.92]

	05/30/15 15:15 CST		4K	Thunderstorm Wind (EG 52 kt)
	05/30/15 15:20 CST		0	Source: Law Enforcement

A few trees were blown down onto roads from Griffin to the Wadesville area. One of the trees landed on Route 66.

A few isolated damaging wind gusts occurred with bands of northeastward moving thunderstorms. Weak to moderate instability and deep, unidirectional southwesterly flow aloft helped to maintain the storms. A 500 mb shortwave trough over the Ozarks moved northeast to the vicinity of the Ohio and Mississippi River confluence by mid-afternoon. A weak surface low pressure center moved northeast from southeast Missouri into south central Illinois.

KENTUCKY, Southwest

TRIGG COUNTY --- 1.0 NW CADIZ [36.88, -87.83]

	05/08/15 14:54 CST		3K	Thunderstorm Wind (EG 52 kt)
	05/08/15 14:54 CST		0	Source: Trained Spotter

A few metal panels were blown off a small garage. Power lines were blown down.

Thunderstorms slowly increased during the midday hours in advance of a mesoscale convective vortex approaching from southeast Missouri. Partial sunshine resulted in moderate instability, with mixed-layer cape values near 1000 j/kg. Winds aloft were unfavorable for organized storm structures, with deep-layer shear only near 20 knots. The combination of moderate instability and relatively high precipitable water values resulted in an isolated wet microburst.

FULTON COUNTY --- 2.0 E HICKMAN [36.57, -89.14]

	05/16/15 13:41 CST		0	Heavy Rain
	05/16/15 13:41 CST		0	Source: Mesonet

A Kentucky mesonet site reported 1.65 inches of rain since midnight.

GRAVES COUNTY --- 6.0 SW MAYFIELD [36.67, -88.71]

	05/16/15 13:41 CST		0	Heavy Rain
	05/16/15 13:41 CST		0	Source: Mesonet

A Kentucky mesonet site reported 2.21 inches of rain since midnight.

MARSHALL COUNTY --- 4.0 N BENTON [36.93, -88.35]

	05/16/15 13:41 CST		0	Heavy Rain
	05/16/15 13:41 CST		0	Source: Mesonet

A Kentucky mesonet site reported 1.51 inches of rain since midnight.

CHRISTIAN COUNTY --- 7.0 N PEMBROKE [36.88, -87.35]

	05/16/15 16:00 CST		0	Heavy Rain
	05/16/15 16:00 CST		0	Source: COOP Observer

A co-operative observer measured 2.33 inches in the past 12 hours. The two-day storm total was 2.88 inches.

CHRISTIAN COUNTY --- 2.0 NE OAK GROVE [36.69, -87.40]

	05/16/15 16:20 CST		0	Funnel Cloud
	05/16/15 16:20 CST		0	Source: Trained Spotter

A funnel cloud was videotaped over open farmland in the vicinity of Oak Grove, near exit 86 of Interstate 24.

High pressure along the southeast U.S. coast produced a very moist south wind flow. At upper levels, a 500 mb shortwave moved north ahead of a closed low over the western states. This shortwave interacted with the moist southerly wind flow to produce areas of heavy

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rain. One of the storms acquired rotation and produced a short-lived funnel cloud.

TODD COUNTY --- 2.1 ENE NORTH ZION [36.76, -87.14], 1.5 NW NORTH ZION [36.77, -87.18], 0.6 SW TRESS SHOP [36.82, -87.23], 1.5 SSE LIBERTY [36.86, -87.17], 1.4 WNW PEA RIDGE [36.86, -87.10]

05/17/15 15:52 CST	20K	Flash Flood (due to Heavy Rain)
05/17/15 17:00 CST	0	Source: Law Enforcement

Flash flooding occurred in Elkton. The parking lot of an auto dealership was flooded with several inches of water. Elk Fork was out of its banks and running across Highway 181 in Elkton. Dozens of roads were covered by water, including two main streets in Elkton. At least three roadways were temporarily closed, including Highway 475 west of town. A church was flooded in Elkton. The Kentucky mesonet site between Elkton and Trenton measured 1.73 inches during the afternoon.

CHRISTIAN COUNTY --- 2.0 SW PEMBROKE [36.76, -87.37], 2.1 SE PEMBROKE [36.76, -87.33], 1.4 ENE PEMBROKE [36.79, -87.33], 2.2 WNW PEMBROKE [36.79, -87.39]

05/17/15 15:55 CST	3K	Flash Flood (due to Heavy Rain)
05/17/15 17:00 CST	0	Source: Trained Spotter

On the west side of Pembroke, a small creek rose out of its banks and came within four inches of entering a home. The residents were evacuated as a precaution. Running floodwaters crossed a main road into town.

A slow-moving area of strong thunderstorms with torrential rainfall produced up to three inches of rain in a few hours. These storms occurred over locations that received 3 to 4 inches of rain in the past 36 hours. The storms were fed by a moist and unstable south wind, which averaged from 20 to 30 knots at 850 mb. At 500 mb, a closed low was over the upper Missouri Valley. Impulses rotated northeast from the southern Plains around the low.

CHRISTIAN COUNTY --- 0.3 NW GRACEY [36.87, -87.65]

05/27/15 12:10 CST	0	Hail (0.88 in)
05/27/15 12:10 CST	0	Source: Trained Spotter

Numerous thunderstorms developed over western Kentucky as daytime heating destabilized the atmosphere. A mesoscale convective vortex over southern Illinois provided ample uplift to generate a few strong storms, with hail up to nickel-size.

LYON COUNTY --- EDDYVILLE [37.05, -88.07], 3.5 N EDDYVILLE [37.10, -88.06]

05/30/15 14:02 CST	7K	Thunderstorm Wind (EG 52 kt)
05/30/15 14:04 CST	0	Source: Trained Spotter

In Eddyville, large tree branches were down, along with some power lines. A trampoline was blown about 200 yards. At the intersection of U.S. Highways 641 and 62, debris was blown into power lines. Trees were down on U.S. Highway 641 just north of Eddyville.

UNION COUNTY --- MORGANFIELD [37.68, -87.92]

05/30/15 15:10 CST	5K	Lightning
05/30/15 15:10 CST	0	Source: 911 Call Center

Lightning started a small fire at a dealership.

TODD COUNTY --- ELKTON [36.82, -87.15]

05/30/15 16:30 CST	10K	Thunderstorm Wind (EG 52 kt)
05/30/15 16:30 CST	0	Source: Trained Spotter

Smaller trees were split due to high wind. A large tree was down on a home, causing some minor damage to the home.

A few isolated damaging wind gusts occurred with bands of northeastward moving thunderstorms. Weak to moderate instability and deep, unidirectional southwesterly flow aloft helped to maintain the storms. A 500 mb shortwave trough over the Ozarks moved northeast to the vicinity of the Ohio and Mississippi River confluence by mid-afternoon. A weak surface low pressure center moved northeast from southeast Missouri into south central Illinois.

MISSOURI, Southeast

RIPLEY COUNTY --- 1.5 WSW DONIPHAN [36.61, -90.84]

05/10/15 15:35 CST	0	Hail (0.75 in)
05/10/15 15:35 CST	0	Source: Law Enforcement

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Dime-size hail was reported at the corner of U.S. Highway 160 and State Highway 21.

A squall line moved east across southeast Missouri, producing locally gusty winds and dime-size hail. Southwesterly deep-layer wind shear around 30 knots was sufficient to maintain the squall line within a moderately unstable atmosphere. The squall line was associated with an upper-level low over South Dakota. A mid-level jet streak rotated northeast from the southern Plains into the Ozarks and Mid-Mississippi Valley.

BOLLINGER COUNTY --- 8.0 W MARBLE HILL [37.30, -90.12], 1.6 WSW NORTH PATTON [37.53, -90.05], 2.2 WNW SEDGEWICKVILLE [37.53, -89.96], 1.2 S LUTESVILLE AIRPK ARP [37.30, -90.02]

05/11/15 01:00 CST	0	Flood (due to Heavy Rain)
05/11/15 09:00 CST	0	Source: Law Enforcement

Eight to ten inches of water was over a road approximately eight miles west of Marble Hill. A foot of water was over Highway 51 about one-half mile north of Highway 72.

PERRY COUNTY --- 1.6 SW PERRYVILLE MUNI ARPT [37.86, -89.89], 5.0 NW BREWER [37.83, -89.98], 5.0 SSW BREWER [37.71, -89.95], 3.0 SSE SERENO [37.76, -89.83], 1.5 N MC BRIDE [37.85, -89.83]

05/11/15 03:00 CST	0	Flood (due to Heavy Rain)
05/11/15 09:00 CST	0	Source: 911 Call Center

A couple of main roads were impassable, including Highway M north of Lithium and U.S. Highway 61 two to three miles from Brewer.

BUTLER COUNTY --- 7.0 NW POPLAR BLUFF [36.82, -90.49]

05/11/15 09:00 CST	0	Heavy Rain
05/11/15 09:00 CST	0	Source: Trained Spotter

A trained spotter measured a total rainfall of 3.50 inches over the past 24 hours.

Several days of rain caused roads to become flooded and even impassable in a couple of cases. The final heavy rain event that produced locally 3 to 4 inches of rain was overnight on the 10th into the morning of the 11th. A cold front began slowly approaching the region on the 7th. Numerous rounds of showers and thunderstorms broke out over the course of several days.

BOLLINGER COUNTY --- 6.0 S PATTON [37.41, -90.02]

05/15/15 12:46 CST	0	Hail (0.75 in)
05/15/15 12:46 CST	0	Source: Emergency Manager

A broken line of thunderstorms moved east across southeast Missouri. A few of these storms produced hail up to the size of dimes. The storms intensified in a moderately unstable air mass, with cape values between 1000 and 1500 j/kg. The trigger for the storms was a mesoscale convective vortex approaching northwest Missouri. Winds aloft were generally rather weak and unresponsive of organized storm structures.

BUTLER COUNTY --- 5.0 NW POPLAR BLUFF [36.80, -90.46]

05/16/15 17:13 CST	0	Funnel Cloud
05/16/15 17:16 CST	0	Source: Broadcast Media

A funnel cloud was captured by a webcam mounted atop a tower in the city. The funnel cloud lasted a few minutes.

High pressure along the southeast U.S. coast produced a very moist south wind flow. At upper levels, a 500 mb shortwave moved north ahead of a closed low over the western states. This shortwave interacted with the moist southerly wind flow to produce isolated showers and thunderstorms. A couple of the convective cells produced funnel clouds, which were videotaped or photographed.

SCOTT COUNTY --- SCOTT CITY [37.25, -89.52]

05/17/15 19:00 CST	0	Funnel Cloud
05/17/15 19:00 CST	0	Source: Emergency Manager

A small funnel cloud was photographed near Scott City. The funnel extended less than halfway to the ground.

Scattered thunderstorms occurred over southeast Missouri. The storms were fed by a moist and unstable south wind, which averaged from 20 to 30 knots at 850 mb. At 500 mb, a closed low was over the upper Missouri Valley. Impulses rotated northeast from the southern Plains around the closed low. One of the thunderstorms produced a funnel cloud.

RIPLEY COUNTY --- 6.0 E DONIPHAN [36.62, -90.71]

05/24/15 18:30 CST	3K	Thunderstorm Wind (EG 52 kt)
05/24/15 18:30 CST	0	Source: Broadcast Media

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Trees were blown down on JJ Highway.				
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SCOTT COUNTY --- VANDUSER [37.00, -89.68]	05/24/15 19:20 CST		12K	Thunderstorm Wind (EG 56 kt)
	05/24/15 19:20 CST		0	Source: Fire Department/Rescue

Several large trees were uprooted. One tree fell on a house. A small equipment shed was destroyed. Large tree limbs were down.

Strong to locally severe thunderstorms spread northeastward from Arkansas into southeast Missouri. A couple of damaging wind events occurred in association with northeastward-bowing lines of storms. The storms occurred ahead of a large upper-level trough moving out of the Rockies and into the Plains. Mesoscale convective vortices embedded in the southwest flow aloft contributed to storm development over Arkansas and southeast Missouri. The storms occurred within a large area of deep southerly flow and high precipitable water values.

BOLLINGER COUNTY --- ZALMA [37.15, -90.08]	05/29/15 17:25 CST		30K	Thunderstorm Wind (EG 74 kt)
	05/29/15 17:25 CST		0	Source: Emergency Manager

Extensive damage occurred within the town limits of Zalma. About two dozen trees were uprooted or snapped. At least one tree landed on a house, and another tree hit a vehicle.

Isolated thunderstorms moved northward across southeast Missouri. These storms were on the eastern edge of an air mass characterized by much higher precipitable water values and stronger instability. The combination of steep lapse rates and dry mid-level air supported the development of an isolated damaging microburst in Bollinger County.

WAYNE COUNTY --- 2.1 NNE SILVA [37.20, -90.51], 2.3 NNE SILVA [37.20, -90.50], 2.1 NE SILVA [37.19, -90.49], 1.7 NE SILVA [37.19, -90.50]	05/31/15 03:45 CST		0	Flood (due to Heavy Rain)
	05/31/15 15:45 CST		0	Source: River/Stream Gage

Minor flooding occurred on the St. Francis River. Low-lying fields and woods were underwater.

Another round of heavy rain during the last few days of the month caused the St. Francis River to briefly rise above flood stage.