

# April 24, 2010 Macroburst

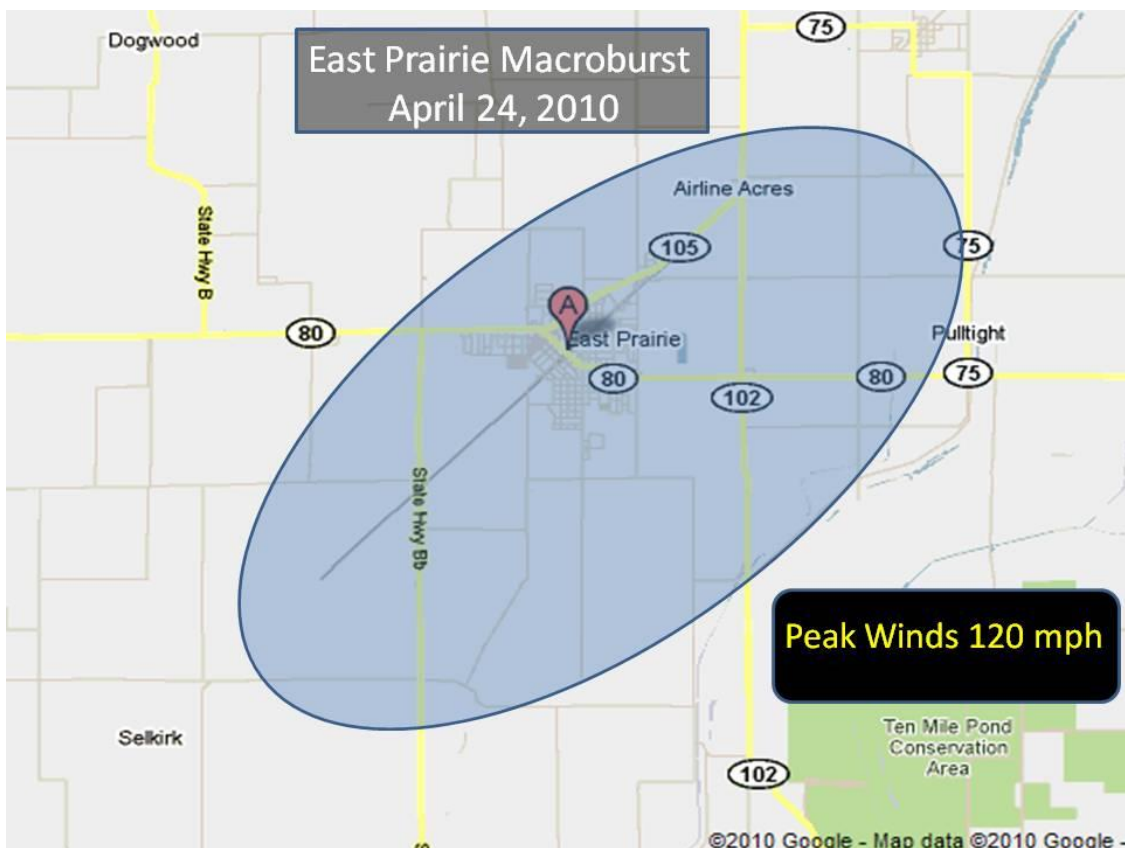
**HIGHLIGHTS:** One of the strongest thunderstorm wind events in the past decade struck the East Prairie area of southeast Missouri with winds estimated around 120 mph. Elsewhere, a microburst and a weak tornado occurred in Christian and Todd Counties of western Kentucky. Several less intense damaging wind events occurred, mainly over western Kentucky.

**BACKGROUND:** A well-organized upper level low moved east from the central Plains into the Mid Missouri Valley during the day. Very strong winds aloft accompanied this system. A streak of very strong mid level winds punched northeast from the Arklatex region into the Lower Ohio Valley during the afternoon. A low level jet from 50 to 60 knots over the Lower Mississippi Valley nosed into the Lower Ohio Valley. At the surface, a low pressure center tracked from north central Arkansas to near St. Louis by late afternoon. Though surface dew points climbed into the lower to mid 60's, extensive cloudcover along and ahead of a warm front limited instability. The instability was generally weak, characterized by cape values below 1000 j/kg.

The Storm Prediction Center issued Tornado Watch 94 at 11:30 A.M., followed by Tornado Watch 96 at 1:20 P.M. Storm surveys, reports, and damage photos are shown below.

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## East Prairie, MO Macroburst Information



PUBLIC INFORMATION STATEMENT  
NATIONAL WEATHER SERVICE PADUCAH KY  
737 PM CDT MON APR 26 2010

...DAMAGE SURVEY RESULTS FOR EAST PRAIRIE AREA OF MISSISSIPPI AND  
NEW MADRID COUNTIES IN SOUTHEAST MISSOURI...

THE FOLLOWING IS THE PRELIMINARY DAMAGE ASSESSMENT FOR THE MACROBURST  
IN SOUTHEAST MISSOURI.

- \* EVENT DATE - SATURDAY APRIL 24 2010
  - \* EVENT TIME - 125 TO 137 PM CDT
  - \* EVENT TYPE - DOWNBURST /MACROBURST/
  - \* EVENT LOCATION - 5 MILES SOUTHWEST OF EAST PRAIRIE TO 3 MILES  
NORTHEAST OF EAST PRAIRIE
  - \* PEAK WIND - 120 MPH
  - \* AVERAGE PATH WIDTH - 3 MILES
  - \* PATH LENGTH - 8 MILES
  - \* INJURIES - 1 MINOR
  - \* FATALITIES - NONE
- \* DISCUSSION/DAMAGE - HIGHEST CONCENTRATION OF DAMAGE WAS IN EAST  
PRAIRIE. ON COUNTY ROAD 535 ON THE OUTSKIRTS OF EAST  
PRAIRIE...TWO MOBILE HOMES WERE DEMOLISHED. A SINGLE WIDE MOBILE  
HOME WAS COMPLETELY SEPARATED FROM THE FRAME...WHICH WAS BLOWN  
100 YARDS UNTIL IT STRUCK A BRICK HOUSE. THE SOLE OCCUPANT OF  
THE MOBILE HOME WAS A YOUNG ADULT WHO RECEIVED ONLY NUMEROUS  
ABRASIONS. A SECOND SINGLE WIDE MOBILE HOME WAS BLOWN A VERY  
SHORT DISTANCE INTO TREES. A NEARBY HOUSE LOST MOST OF THE ROOF  
AND A LARGE SECTION OF THE WINDWARD FACING EXTERIOR WALL.
- OFF STATE ROAD OO IN NEARBY NEW MADRID COUNTY...A HOUSE UNDER  
CONSTRUCTION LOST SOME WALLS AND THE ROOF. IN THE CITY OF EAST  
PRAIRIE...THREE INDUSTRIAL BUILDINGS WERE HEAVILY DAMAGED OR  
DESTROYED, ALONG WITH DAMAGE TO THE ROOF OF THE EAST PRAIRIE  
POLICE DEPARTMENT. NUMEROUS TREES WERE BLOWN DOWN IN AND NEAR  
EAST PRAIRIE...SOME DAMAGING HOMES. SEVERAL FARM BUILDINGS  
RECEIVED MINOR TO MAJOR DAMAGE SOUTHWEST OF EAST PRAIRIE.

THE PEAK WIND OF 120 MPH...EQUIVALENT TO AN EF2 TORNADO...WAS  
SUPPORTED BY DAMAGE TO SEVERAL STRUCTURES INCLUDING INDUSTRIAL  
BUILDINGS IN EAST PRAIRIE AND HOMES WEST AND SOUTHWEST OF EAST  
PRAIRIE. THIS WAS ONE OF THE STRONGEST DOWNBURSTS EVER  
DOCUMENTED IN OUR REGION.

SURVEYORS...SHANKLIN/ YORK

**Damage photos taken by NWS staff:**

Mobile home demolished. The frame struck a brick home partially obscured by the trees but was relocated back to the original property before this photo was taken.



Exterior wall of home partially blown in. The pre-existing condition of the house was rather poor.



## **CHRISTIAN AND TODD COUNTIES, KY: WEAK TORNADO AND MICROBURST**

PUBLIC INFORMATION STATEMENT  
NATIONAL WEATHER SERVICE PADUCAH KY  
846 PM CDT SUN APR 25 2010

...DAMAGE SURVEY RESULTS FOR EXTREME SOUTHEAST CHRISTIAN AND  
SOUTHWEST TODD COUNTIES...

THE FOLLOWING IS THE PRELIMINARY DAMAGE ASSESSMENT FOR APRIL 24  
EVENT # 1 FOR CHRISTIAN AND TODD COUNTIES. IN ADDITION,  
INITIAL/INCOMPLETE SURVEYING WAS CONDUCTED INTO FAR NORTHERN  
MONTGOMERY COUNTY IN TENNESSEE.

- \* EVENT DATE - SATURDAY APRIL 24 2010
- \* EVENT TIME - 4:43 PM CDT UNTIL 4:55 PM
- \* EVENT TYPE - ***MICROBURST***
- \* EVENT LOCATION - FROM 2 MILES SOUTHEAST OF OAK GROVE, KY  
(ALONG/SOUTH OF THE KY-TN STATE LINE) TO 3 1/2 MILES SOUTHEAST  
OF TRENTON, KY
- \* PEAK WIND - 90 MPH
- \* AVERAGE PATH WIDTH - 1.5 MILES
- \* MAXIMUM PATH WIDTH - APPROXIMATELY 2 MILES
- \* PATH LENGTH - 7+ MILES (FOR KENTUCKY PORTION, THE TENNESSEE  
PORTION MAY BE FURTHER SURVEYED MONDAY)
- \* INJURIES - NONE
- \* FATALITIES - NONE
  
- \* DISCUSSION/DAMAGE - THE MICROBURST (DOWNBURST LESS THAN 2.5  
MILES WIDE) DAMAGE IN KENTUCKY EXTENDED FROM ALONG THE KENTUCKY-  
TENNESSEE BORDER SOUTHEAST OF OAK GROVE, KY FOR APPROXIMATELY 7  
MILES TO THE NORTHEAST TO U.S. HWY 41...ABOUT 3.5 MILES  
SOUTHEAST OF TRENTON, KY. DAMAGE WAS OBSERVED AT LEAST 1 MILE  
SOUTH OF THE KY-TN BORDER INTO NORTHERN MONTGOMERY COUNTY TN.

MANY DOZENS OF TREES WERE UPROOTED OR BROKEN. ONE BARN WAS  
LEVELED, WITH SEVERAL OTHER BARNS RECEIVING MODERATE TO MAJOR  
DAMAGE. A FEW HOMES SUFFERED MAINLY MINOR DAMAGE (PORCH DAMAGE,  
PARTIAL LOSS OF SHINGLES, ETC.). DAMAGE WAS OBSERVED ALONG OR  
NEAR BARKERS MILL RD (HWY 1881), TRENTON RD (HWY 104),  
HAMMACKSVILLE RD, CHESTER STALL RD, AND U.S. HWY 41.

Pictures from southeast Christian County, KY on Hwy 1881:





Pictures from Todd County, KY











THE FOLLOWING IS THE PRELIMINARY DAMAGE ASSESSMENT FOR APRIL 24  
EVENT # 2 FOR CHRISTIAN AND TODD COUNTIES.

- \* EVENT DATE - SATURDAY APRIL 24 2010
- \* EVENT TIME - 4:23 PM CDT UNTIL 4:27 PM
- \* EVENT TYPE - ***EF0 TORNADO***
- \* EVENT LOCATION - 2 MILES SOUTHEAST OF PEMBROKE, KY TO PEMBROKE, KY
- \* PEAK WIND - 75 MPH
- \* AVERAGE PATH WIDTH - 40 YARDS
- \* PATH LENGTH - 2 MILES
- \* INJURIES - NONE
- \* FATALITIES - NONE
- \* DISCUSSION/DAMAGE - SEVERAL TREES OR TREE LIMBS WERE BLOWN DOWN  
ALONG WITH MINOR DAMAGE TO A HOME (GUTTERS). THE TORNADO TRACK  
WAS MOSTLY ACROSS FIELDS. THE TORNADO WAS PHOTOGRAPHED NEAR THE  
INITIAL TOUCHDOWN ABOUT 2 MILES SOUTHWEST OF PEMBROKE, AND WAS  
ALSO OBSERVED ON THE GROUND LESS THAN 1 MILE FROM PEMBROKE.
- \* SURVEYOR/S....SHANKLIN/ POWELL



## Summary of storm events

PRELIMINARY LOCAL STORM REPORT...SUMMARY  
 NATIONAL WEATHER SERVICE PADUCAH KY  
 737 PM CDT SAT APR 24 2010

..TIME...	...EVENT...	...CITY LOCATION...	...LAT.LON...
..DATE...	....MAG....	..COUNTY LOCATION..ST..	...SOURCE....
	..REMARKS..		
0130 PM 04/24/2010	TSTM WND DMG	EAST PRAIRIE MISSISSIPPI	36.78N 89.38W MO EMERGENCY MNGR
	TRAILER BLOWN OVER ON COUNTY ROAD 535 IN EAST PRAIRIE TRAPPING YOUNG BOY INSIDE FOR A SHORT PERIOD OF TIME. TREES DOWN IN EAST PRAIRIE. PART OF ROOF BLOWN OFF OF THE LOCAL POLICE DEPT. POWER OUTAGES IN WYATT, CHARLESTON AND EAST PRAIRIE.		
0131 PM 04/24/2010	FUNNEL CLOUD	2 SW KARNAK PULASKI	37.27N 89.00W IL TRAINED SPOTTER
	REPORTED BY TRAINED STORM SPOTTER.		
0145 PM 04/24/2010	TSTM WND DMG	VIENNA JOHNSON	37.41N 88.89W IL LAW ENFORCEMENT
	NUMEROUS TREES AND POWER LINES DOWN IN AND SOUTH OF VIENNA ILLINOIS		
0146 PM 04/24/2010	TSTM WND GST E70.00 MPH	KARNAK PULASKI	37.29N 88.98W IL TRAINED SPOTTER
0147 PM	HAIL	KARNAK	37.29N 88.98W

04/24/2010 M1.00 INCH PULASKI IL TRAINED SPOTTER

0245 PM HEAVY RAIN KEVIL 37.08N 88.89W  
04/24/2010 M1.71 INCH BALLARD KY AMATEUR RADIO

NEARLY ONE AND THREE QUARTER INCH OF RAIN WITHIN ONE HOUR.

0314 PM TSTM WND DMG HAZEL 36.51N 88.33W  
04/24/2010 CALLOWAY KY EMERGENCY MNGR  
REPORT OF TREES DOWN IN THE COMMUNITY OF HAZEL. DIME SIZE HAIL ALSO REPORTED WITH THIS STORM.

0320 PM TSTM WND DMG 6 ESE MURRAY 36.58N 88.22W  
04/24/2010 CALLOWAY KY EMERGENCY MNGR  
NUMEROUS LARGE TREES DOWN. 10-15 WERE BLOCKING ROADS. SEVERAL POWERLINES ALSO DOWN

0329 PM FLASH FLOOD 2 S ELDORADO 37.78N 88.44W  
04/24/2010 SALINE IL LAW ENFORCEMENT  
WATER OVER STATE ROUTE 142 2 MILES SOUTH OF ELDORADO. MAJOR VEHICLE ACCIDENT AT LOCATION.

0353 PM HEAVY RAIN COBB 37.02N 87.76W  
04/24/2010 M0.75 INCH CALDWELL KY CO-OP OBSERVER  
THREE QUARTER INCH RAIN IN 14 MINUTES.

0400 PM TSTM WND GST 4 S MADISONVILLE 37.28N 87.51W  
04/24/2010 M62.00 MPH HOPKINS KY MESONET

0405 PM FLASH FLOOD S ELDORADO 37.81N 88.44W  
04/24/2010 SALINE IL LAW ENFORCEMENT  
STANDING WATER ALONG STATE ROUTE 142 ONE HALF MILE SOUTH OF ELDORADO. SEVERAL ROADWAYS IN EASTERN SALINE COUNTY ARE UNDER WATER.

0414 PM HEAVY RAIN 2 E HOPKINSVILLE 36.85N 87.45W  
04/24/2010 U0.00 INCH CHRISTIAN KY TRAINED SPOTTER  
HEAVY RAIN AND MINOR FLOODING REPORTED EAST OF HOPKINSVILLE.

0426 PM TORNADO PEMBROKE 36.77N 87.36W  
04/24/2010 CHRISTIAN KY TRAINED SPOTTER  
UNCONFIRMED.

0426 PM TORNADO PEMBROKE 36.77N 87.36W  
04/24/2010 CHRISTIAN KY TRAINED SPOTTER  
REPEAT STORM REPORT. THIS EVENT IS UNCOMFIRMED.

0430 PM HEAVY RAIN 8 NE HOPKINSVILLE 36.94N 87.39W  
04/24/2010 M1.00 INCH CHRISTIAN KY TRAINED SPOTTER  
HEAVY RAIN OF ONE INCH WITHIN 15 MINUTES REPORTED AND

ROADWAY FLOODING IN THE COMMUNITY OF LACY.

0446 PM 04/24/2010	TSTM WND GST M62.00 MPH	2 NE PHILPOT DAVISS		37.75N 86.96W KY BROADCAST MEDIA
0448 PM 04/24/2010	HEAVY RAIN M1.05 INCH	POWDERLY MUHLENBERG		37.24N 87.16W KY TRAINED SPOTTER HEAVY RAIN REPORTED WITHIN 40 MINUTES. MINOR ROADWAY FLOODING REPORTED COUNTYWIDE.
0500 PM 04/24/2010	TSTM WND GST E70.00 MPH	GUTHRIE TODD		36.66N 87.17W KY TRAINED SPOTTER POWER OUTAGES REPORTED.
0507 PM 04/24/2010	TSTM WND DMG	TRENTON TODD		36.72N 87.26W KY EMERGENCY MNGR LATE REPORT...FEW TREES DOWN THAT WERE BLOCKING A ROAD ON SOUTHWEST SIDE OF COMMUNITY. MINOR LOW-LYING STREET FLOODING.
0517 PM 04/24/2010	HEAVY RAIN U0.00 INCH	ELKTON TODD		36.81N 87.16W KY TRAINED SPOTTER HEAVY RAINS HAD PRODUCED STANDING WATER ALONG MANY ROADWAYS COUNTYWIDE.
0643 PM 04/24/2010	TSTM WND DMG	BENTON FRANKLIN		38.01N 88.92W IL TRAINED SPOTTER ONE TWELVE INCH DIAMETER TREE DOWN
0645 PM 04/24/2010	TSTM WND DMG	1 E MOUNT VERNON JEFFERSON		38.32N 88.89W IL PUBLIC SEVERAL TREES DOWN ON GOLF COURSE JUST EAST OF MOUNT VERNON. POWER OUTAGES IN THE AREA.
0345 PM 04/24/2010	TSTM WND DMG	CADIZ TRIGG		36.87N 87.82W KY LAW ENFORCEMENT SEVERAL TREES REPORTED DOWN

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