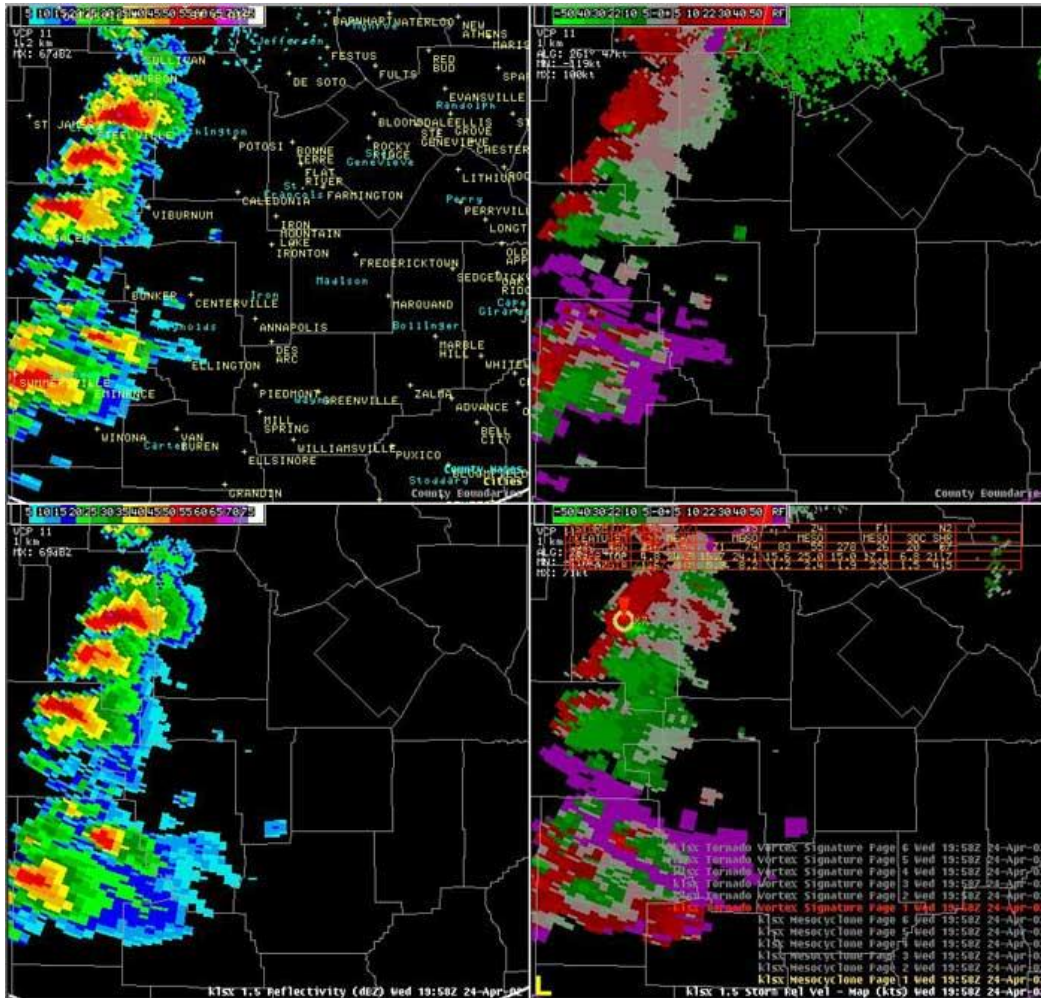


# Bi-State Severe Weather Event

## April 24<sup>th</sup>, 2002

### Overview

A typical spring synoptic situation manifested itself as a widespread severe weather event across the bi-state region during the afternoon hours on April 24<sup>th</sup>, 2002. Cold Canadian air spilled into the Central Plains behind a fast moving cold front that passed through the forecast area in less than 10 hours. Ahead of the front, warm, moist, and unstable Gulf of Mexico air was in place providing the necessary fuel for the development of widespread showers and thunderstorms. Storms originated to the north and west of the forecast area and became widespread into northern portions of the St. Louis County Warning Area (CWA) of responsibility around 11:30 am. By 2:30 pm, the southern half of the CWA also became active with severe weather. A total of 24 warnings were issued by the St. Louis Weather Forecast Office covering 20 counties. Widespread damage from hail and tornadic winds were reported, but with no injury nor loss of life.



## Damage Survey Assessment:

### DAMAGE SURVEY INFORMATION FOR MADISON COUNTY MISSOURI TORNADO:

Maximum Rating: F2  
Path Length: 9 miles  
Path Width: 200 yards  
Fatalities: None  
Injuries: None

ON WEDNESDAY 24 APRIL 2002, A STRONG COLD FRONT TRIGGERED WIDESPREAD SEVERE THUNDERSTORMS ACROSS PORTIONS OF MISSOURI AND ILLINOIS. THESE THUNDERSTORMS PRODUCED MULTIPLE TORNADOES ACROSS SOUTHEAST MISSOURI INCLUDING TWO IN COUNTIES SERVED BY THE NATIONAL WEATHER SERVICE OFFICE IN ST. LOUIS. THIS REPORT SUMMARIZES THE FINDINGS FROM A DAMAGE SURVEY CONDUCTED BY A NWS STAFF MEMBER FOR THE TORNADO THAT HIT MADISON COUNTY MISSOURI.

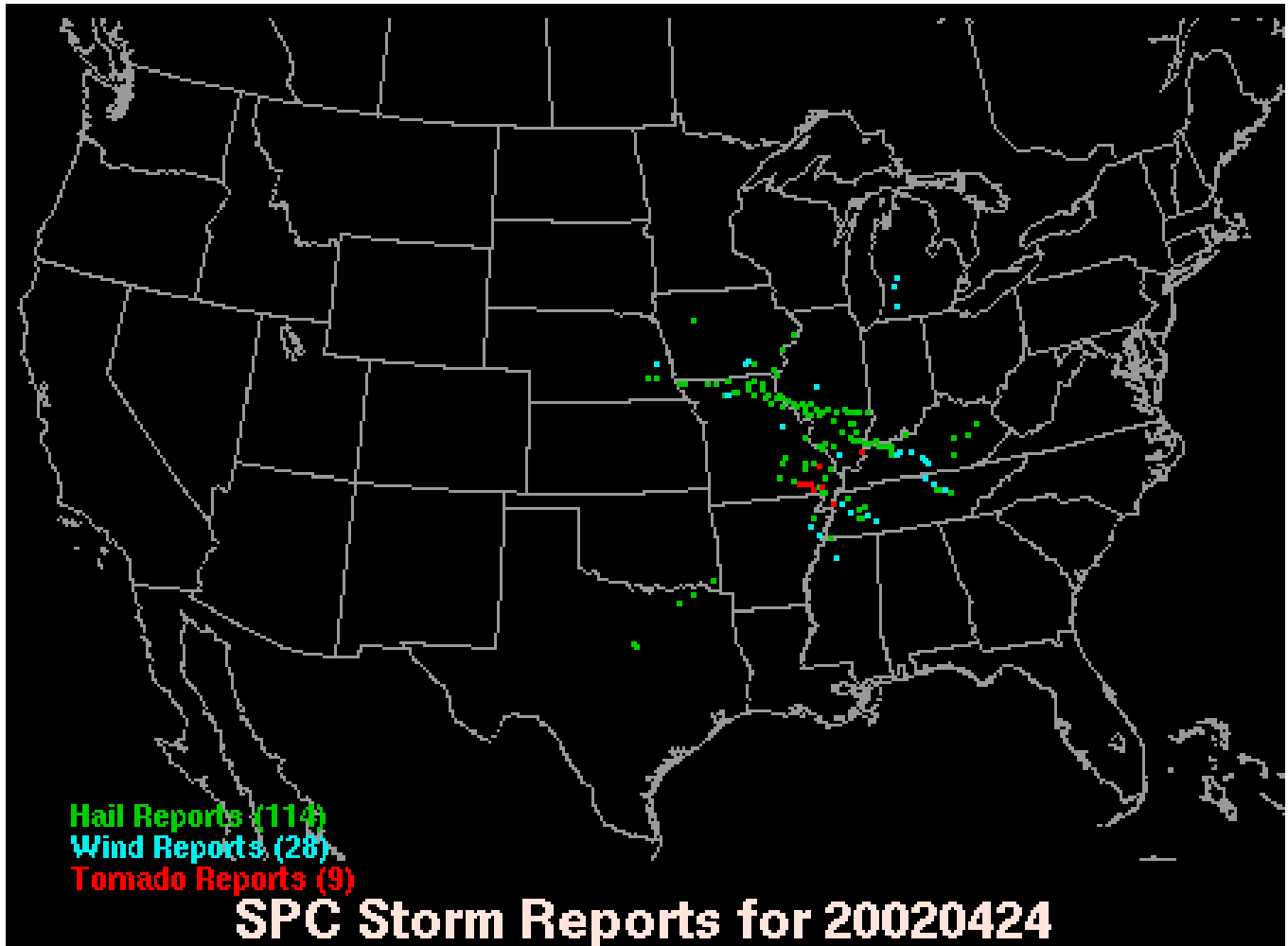
AROUND 4:45 PM CDT, THE TORNADO TOUCHED DOWN APPROXIMATELY FOUR MILES SOUTH OF CHEROKEE PASS, OR ABOUT NINE MILES SOUTH OF FREDERICKTOWN. THE TORNADO CROSSED HIGHWAY 67 AT THIS LOCATION AND DAMAGED MULTIPLE STRUCTURES IN THE AREA. ONE TRAILER HOME WAS ROLLED 20 TO 30 YARDS OFF ITS FOUNDATION AND WAS COMPLETELY DESTROYED. A FRAME HOUSE TO THE SOUTH OF THE TRAILER HOME LOST ITS ROOF, AS DID A SHED TO ITS NORTH. BASED ON THIS DAMAGE...THE TORNADO WAS RATED F2 AT THIS LOCATION. THE WIDTH OF F2 DAMAGE ALONG THE TORNADO PATH WAS ESTIMATED AT 100 YARDS.

FROM THIS LOCATION THE TORNADO MOVED EAST TOWARD MARQUAND. IT REACHED THE AREA AROUND 5:00 PM CDT AND PRODUCED CONSIDERABLE DAMAGE. MANY LARGE TREES WERE UPROOTED OR SNAPPED OFF, AND NEARLY EVERY STRUCTURE WITHIN A 3 TO 4 BLOCK AREA OF THE TOWN WAS DAMAGED IN SOME WAY. SEVERAL FRAME BUILDINGS LOST ALL OR PART OF THEIR ROOF. THE WALLS OF A BRICK BUILDING UNDERGOING RESTORATION SUFFERED A PARTIAL COLLAPSE. JUST WEST OF TOWN, A PILE OF DEBRIS CONSISTING OF TWO-BY-TEN BOARDS WAS FOUND DRIVEN LIKE A MISSILE INTO THE GROUND. BASED ON ALL OF THESE OBSERVATIONS, THE TORNADO WAS RATED F2 AT MARQUAND. THE WIDTH OF F2 DAMAGE ALONG THE TORNADO PATH WAS APPROXIMATELY 200 YARDS.

AT BOTH LOCATIONS, DAMAGE RATED AS CATEGORY F1 WAS OBSERVED IN AN AREA NEARLY 400 YARDS WIDE. THIS CONSISTED PRIMARILY OF UPROOTED OR SNAPPED TREES, AS WELL AS MINOR DAMAGE TO HOUSES. EVEN LIGHTER DAMAGE RATED AS F0 AND CONSISTING OF SMALL UPROOTED TREES OR BROKEN OR SNAPPED BRANCHES WAS FOUND IN AN AREA APPROXIMATELY 0.9 MILES WIDE ALONG THE TORNADO PATH.

DAMAGE INFORMATION WAS NOT AVAILABLE FOR THE LESS ACCESSIBLE WOODED AREA BETWEEN CHEROKEE PASS AND MARQUAND. NOR WAS IT AVAILABLE FOR THE WOODED AREAS WEST OF CHEROKEE PASS AND EAST OF MARQUAND. EVEN SO, ASSUMING THE TORNADO STAYED ON THE GROUND THE ENTIRE TIME BETWEEN CHEROKEE PASS AND MARQUAND, THE TOTAL LENGTH OF THE TORNADO PATH WAS OVER NINE MILES.

## Storm Reports



Storm Reports from 24 April 2002 courtesy of the Storm Prediction Center.

## Preliminary Storm Reports for April 24<sup>th</sup>, 2002:

TIME(CDT):	LOCATION (COUNTY):	EVENT:	REMARKS:
1150 AM	HUNNEWELL MO (SHELBY)	1.75 INCH HAIL	PEA SIZE HAIL CLUMPED TOGETHER.
1210 PM	BETHEL MO (SHELBY)	1.00 INCH HAIL	PUBLIC REPORT.
1227 PM	HANNIBAL MO (MARION)	1.00 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
1230 PM	FRANKFORD MO (PIKE)	1.75 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
1230 PM	EDINA MO (KNOX)	1.75 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
1230 PM	NEWARK MO (KNOX)	1.00 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
1230 PM	PALMYRA MO (MARION)	4.50 INCH HAIL	CONFIRMED PUBLIC REPORT.
1245 PM	STEFFENVILLE MO (LEWIS)	1.00 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
0104 PM	NEBO IL (PIKE)	1.75 INCH HAIL	REPORTED BY PIKE COUNTY SHERIFFS DEPT.
0119 PM	3S QUINCY IL (ADAMS)	1.00 INCH HAIL	REPORTED BY SEVERE WEATHER SPOTTERS.
0130 PM	PITTSFIELD IL (PIKE)	2.75 INCH HAIL	PIKE COUNTY EMA. HAIL DAMAGE TO CARS.
0132 PM	WHITE HALL IL (GREENE)	1.00 INCH HAIL	REPORTED BY GREENE COUNTY EMA.
0132 PM	ROODHOUSE IL (GREENE)	1.00 INCH HAIL	REPORTED BY GREENE COUNTY EMA.
0147 PM	CARROLLTON IL (GREENE)	1.75 INCH HAIL	REPORTED BY GREENE COUNTY EMA.
0158 PM	GREENFIELD IL (GREENE)	1.75 INCH HAIL	REPORTED BY GREENE COUNTY EMA.
0159 PM	SCOTTVILLE IL (MACOUPIN)	1.75 INCH HAIL	MACOUPIN COUNTY SHERIFFS DEPT.
0208 PM	10NE JERSEYVILLE IL (JERSEY)	1.75 INCH HAIL	JERSEY COUNTY SHERIFFS DEPT.
0215 PM	CARLINVILLE IL (MACOUPIN)	1.75 INCH HAIL	AMATEUR RADIO OPERATOR.
0217 PM	MEDORA IL (MACOUPIN)	1.75 INCH HAIL	REPORTED BY MEDORA POLICE.
0217 PM	CARLINVILLE IL (MACOUPIN)	1.75 INCH HAIL	SEVERE WEATHER SPOTTERS.
0229 PM	SHIPMAN IL (MACOUPIN)	1.75 INCH HAIL	AMATEUR RADIO OPERATOR.
0232 PM	LITCHFIELD IL (MONTGOMERY)	1.00 INCH HAIL	AMATEUR RADIO OPERATOR.
0239 PM	GILLESPIE IL (MACOUPIN)	2.00 INCH HAIL	AMATEUR RADIO OPERATOR.

## Preliminary Storm Reports for April 24<sup>th</sup>, 2002:

TIME(CDT):	LOCATION(COUNTY):	EVENT:	REMARKS:
0240 PM	GILLESPIE IL (MACOUPIN)	1.25 INCH HAIL	AMATEUR RADIO OPERATOR.
0240 PM	BUNKER HILL IL (MACOUPIN)	1.75 INCH HAIL	AMATEUR RADIO OPERATOR.
0242 PM	GILLESPIE IL (MACOUPIN)	1.75 INCH HAIL	SEVERE WEATHER SPOTTERS.
0300 PM	MCKITTRICK MO (MONTGOMERY)	WIND DAMAGE	LARGE TREE DOWN ON HIGHWAY 19.
0307 PM	COFEEN IL (MONTGOMERY)	1.00 INCH HAIL	SEVERE WEATHER SPOTTERS.
0310 PM	1N GREENVILLE IL (BOND)	1.75 INCH HAIL	BOND COUNTY SHERIFFS DEPT.
0310 PM	RAMSEY IL (FAYETTE)	1.75 INCH HAIL	FAYETTE COUNTY SHERIFFS DEPT.
0414 PM	IRONTON MO (IRON)	1.00 INCH HAIL	HAIL COVERED THE GROUND.
0450 PM	MARQUAND MO (MADISON)	TORNADO	DAMAGE TO FIRE STATION,COURT HOUSE.
0509 PM	4E SABULA MO (IRON)	1.00 INCH HAIL	SEVERE WEATHER SPOTTERS.

Please note that while the severe weather data presented in this event synopsis has been quality controlled, it is still considered unofficial. Official reports & statistics for severe weather events can be found in the **Storm Data** publication (<http://www.ncdc.noaa.gov/IPS/sd/sd.html>) or **Storm Events Database** (<http://www.ncdc.noaa.gov/stormevents/>), available from the National Centers for Environmental Information (NCEI) web page [formerly the National Climate Data Center (NCDC)].

More detailed tornado track information can be accessed using the National Weather Service Damage Assessment Toolkit for all tornadoes beginning in 2012. <https://apps.dat.noaa.gov/StormDamage/DamageViewer/>

***Any questions regarding this event review should be address to [w-lsx.webmaster@noaa.gov](mailto:w-lsx.webmaster@noaa.gov)***