

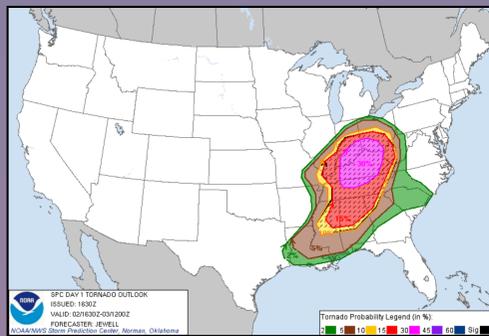


EF4 in Henryville, IN

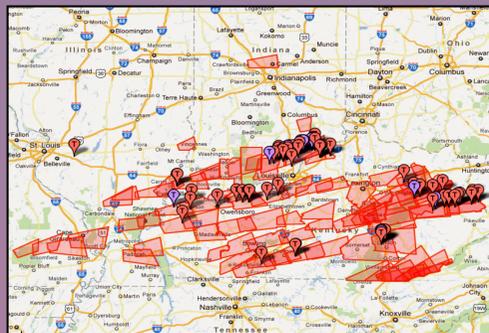
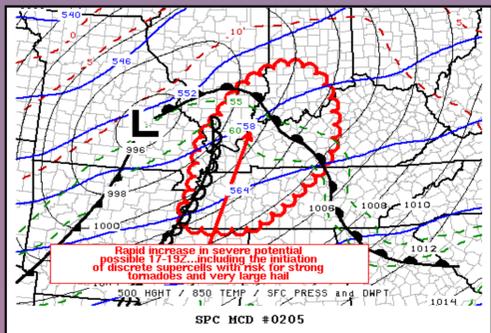
In Like a Lion...

March 2, 2012 Tornado Outbreak

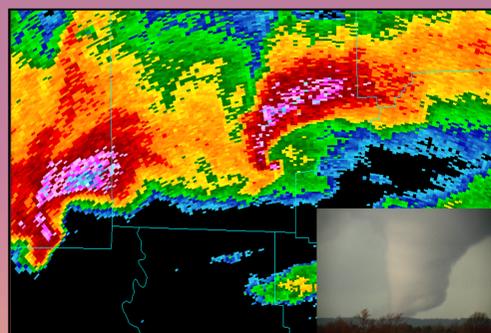
March 2, 2012 was a day for the history books in the Ohio River Valley as a low pressure system tore across the Midwest. Ahead of the low, key ingredients for a significant tornado outbreak were in place: unusually warm, moist, and unstable low-level air from the Gulf of Mexico which set record high temperatures in the South; cool, dry air at mid altitudes; and an approaching strong jet stream at high levels with wind speeds around 130 mph. Recognizing these parameters, the Storm Prediction Center (SPC) in Oklahoma outlooked central Kentucky and southern Indiana in a high risk for severe thunderstorms and tornadoes the morning of the event, declaring a rare “Particularly Dangerous Situation” for the area.



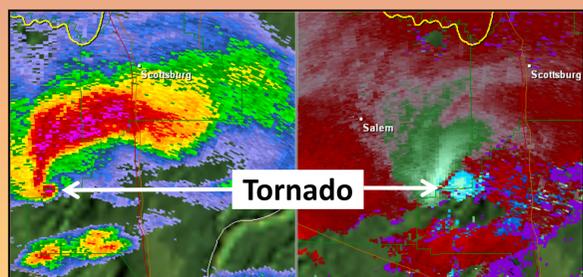
SPC products showing high severe weather potential across Kentucky and southern Indiana (above/below left), and a graphic of many warnings issued during the event by the NWS (below right).



Intense supercell thunderstorms developed as a cold front approached in the late afternoon. Back-to-back supercells over southern Indiana unleashed EF4 and EF1 tornadoes within 10 minutes of each other, leaving a long path of destruction in Pekin, Henryville, and Marysville. The intense tornado was on the ground for 49 miles. Very large hail also fell. Another supercell produced an EF3 tornado in West Liberty, Kentucky.



NWS Doppler radar reflectivity (above left) showed two supercells moving over nearly identical paths in southern Indiana. The EF4 tornado from the eastern (lead) supercell is shown in the inset. GR-Level 2 data revealed classic vertical structure from the lead supercell over Pekin, IN (above right).



Henryville EF4 tornado reflectivity and velocity data (left). Tornado paths from Supercell 1 (EF4) and 2 (EF1) (right).



Henryville Community Schools took a direct hit from the twister, impaling a car with 2-by-4s and tossing a bus into a business across the street.



The massive tornado tore up and threw pavement aside near Pekin, and destroyed parts of Marysville. Debris was found 57 miles away near Cincinnati.



The Aftermath

- 13 confirmed deaths in Indiana, 23 in Kentucky
- 41 total deaths from the March 2 outbreak across the eastern United States
- 279 tornado warnings issued by NWS offices
- 81 confirmed touchdowns across 11 states, some long-track
- Total damage estimates over \$1.5 billion across the eastern United States

NWS Louisville student volunteers:
Jenna Mackin, University of Louisville
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