Super Tornado Outbreak

April 3, 1974

Overview

The Super Tornado Outbreak on April 3-4, 1974 was the worst such outbreak in United States history. Overall, 148 tornadoes touched down across 13 states from the Great Lakes to the Southeast within a 16-hour period. When the storms finally dissipated, 330 persons were killed, 5,484 were injured, and the damage path covered 2,500 miles. The total cost of the outbreak was estimated around 600 million dollars.

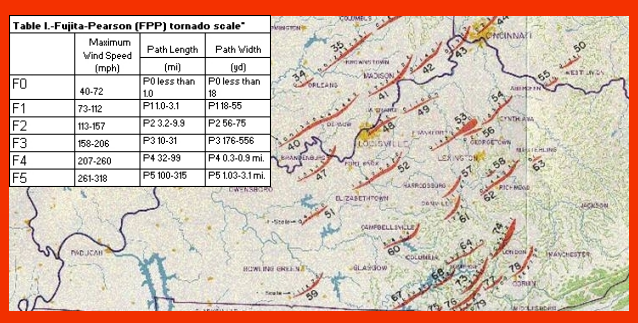
In Kentucky

Severe thunderstorms arrived during the afternoon and evening of April 3, which produced 26 tornadoes and the worst storm disaster in the state's history. The first and most violent tornado touched down 5 miles southwest of Hardinsburg (Breckinridge County) at 3:40 pm CDT. Thirty minutes later, an F5 tornado slammed into Brandenburg (Meade County) destroying the majority of the town. The tornado cut a 500 yard wide destruction path, which killed 31 people and injured another 270. Within the hour, 5 other tornadoes were spawned throughout the state from Louisville to Simpson County in south-central Kentucky.

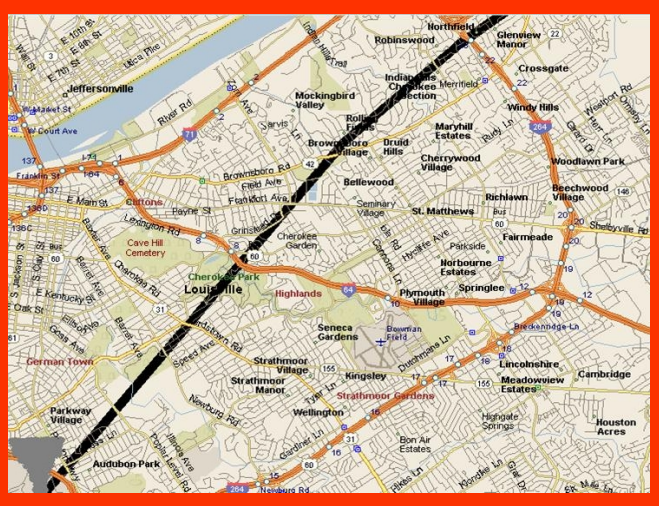
A destructive tornado touched down in Louisville at 5:37 pm EDT, one-fourth mile north of Standiford Field Airport. It caused damage to the Fairgrounds tearing off part of Freedom Hall's roof and destroyed several horse barns. Bardstown Road near Eastern Parkway also suffered significant damage while many trees were demolished in Cherokee Park. From there, the tornado sliced through Crescent Hill, Brownsboro Road, and then Northfield where it was rated F4 on the Fujita scale. It finally weakened in Oldham County, northeast of Louisville. The twister killed 2 people and injured 225, while 3 others died from heart attacks.

In all, tornadoes affected 39 counties across Kentucky on April 3, which killed 77 people, injured 1,377, and affected 1,800 farms and 6,625 families. The state suffered 110 million dollars in damages.

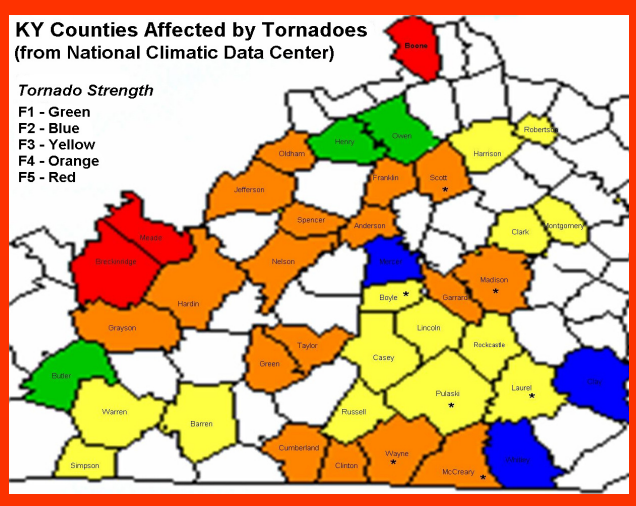
Table I.-Fujita-Pearson (FPP) tornado scale*			
	Maximum Wind Speed (mph)	Path Length (mi)	Path Width (yd)
F0	40-72	P0 less than 1.0	P0 less than 18
F1	73-112	P1 1.0-3.1	P1 18-55
F2	113-157	P2 3.2-9.9	P2 56-75
F3	158-206	P3 10-31	P3 176-556
F4	207-260	P4 32-99	P4 0.3-0.9 mi.
F5	261-318	P5 100-315	P5 1.03-3.1 mi.



Tornado paths over Kentucky and southern Indiana on April 3, 1974



Estimated path of the April 3, 1974 Louisville tornado



Kentucky counties affected by at least one tornado

A photograph of the Louisville tornado taken from the roof of the Courier-Journal.
Photo by Larry Spitzer © The Courier-Journal.

Category F0: Gale tornado (42-72 mph); some damage to chimneys and branches broken off trees.

Category F1: Moderate tornado (73-112 mph); peels surface off roofs, mobile homes pushed off foundations or overturned.

Category F2: Significant tornado (113-157 mph); roofs torn off frame houses, mobile homes demolished, large trees snapped or uprooted, light object missiles generated.

Category F3: Severe tornado (158-206 mph); roofs and some walls torn off well-constructed houses, most trees in forest uprooted, trains overturned.

Category F4: Devastating tornado (207-260 mph); well-constructed houses leveled, structures with weak foundations blown off some distance, cars thrown, large missiles generated.

Category F5: Incredible tornado (261-318 mph); strong frame houses lifted off foundations and carried considerable distance to disintegrate, car-sized missiles fly through air, trees debarked.

Across Indiana

Twenty tornadoes affected 38 counties causing the state's worst tornado outbreak. Many of these tornadoes moved at speeds of 50-60 mph, and several were visually observed to have multiple funnels. An F4 tornado which hit Monticello north of Lafayette had a path length of 121 miles, the longest path of any tornado during this outbreak. In Hanover (Jefferson County, Indiana), another violent tornado killed 6. Two other tornadoes formed near Madison, Indiana, both reaching F4 intensity resulting in 11 deaths and 300 injuries. In all, 47 persons were killed, 900 were injured, and over 6,000 families suffered property loss across Indiana.

Summary

The Super Outbreak of April 3-4, 1974 will always be remembered by those who witnessed and survived the event. The magnitude of this tornado event has not been replicated across the Ohio Valley in over 30 years since those destructive days. Many of the deaths occurred due to a combination of the shear number of intense tornadoes and a somewhat poor dissemination system. Today with new advances in Doppler radar technology, extensive forecaster training, proactive warning operations, and enhanced communications systems, National Weather Service forecasters effectively observe and assess severe storms and provide advanced warning for those in harm's way.

Brandenburg, KY

Courtesy of The Meade County Messenger

Louisville, KY

Photos courtesy of Butler Books,
"Tornado: A Look Back at Louisville's Dark Day"

Madison and Hanover, IN

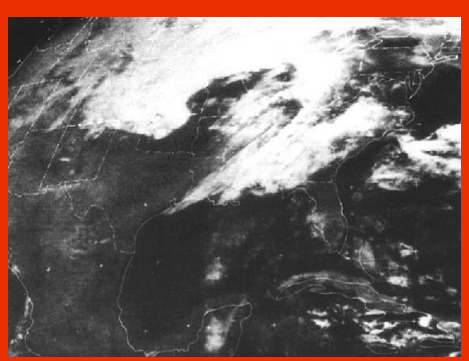
Photos courtesy of Jim Pirtle, Paul Blume, Madison Photo, Bridal Service, Tim Lichlyter, Dr. Nobel and Rosie Graves, John Burress, and Doug Duell

"We have damage that is indescribable. Over 400 houses demolished, cars have been thrown like they were toys, just thrown everywhere. I saw an automobile picked up and thrown into the Reservoir up there off Frankfort Ave. Thank God nobody was in it."

-Captain Dick Tong, WAVE 3 Traffic Copter, from "Tornado: A Look Back at Louisville's Dark Day"

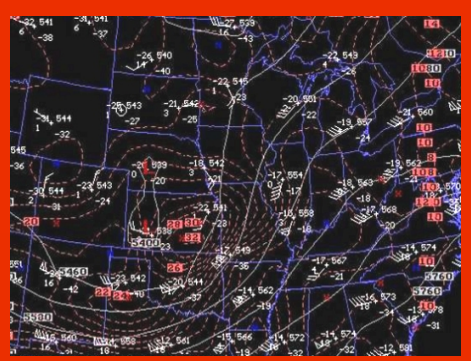
"It's a shambles, an absolute shambles."

-Brandenburg newspaper editor, April 4, 1974



Cloud cover over the U.S. on April 3, 1974 taken by an Applications Technology Satellite 3.

Surface chart at 7 am April 3, 1974. Area in yellow is where the majority of tornadoes occurred.



500 mb (18,000 ft) chart at 7 am April 3, 1974. A strong storm system was approaching Kentucky.