

= 2011 Philadelphia , Mississippi tornado =

During the afternoon of April 27 , 2011 , a violent EF5 tornado touched down in eastern Mississippi , killing three people . Part of the historic 2011 Super Outbreak , the largest tornado outbreak on record , this was the first of four EF5 tornadoes to touch down that day and the first such storm in Mississippi since the 1966 Candlestick Park tornado . While on the ground for 30 minutes , it traveled along a near 29 @-@ mile (47 km) path through four counties , leaving behind three deaths , eight injuries , and \$ 1 @. @ 1 million in damage .

The supercell thunderstorm that produced this tornado formed around 1 : 00 p.m. CDT south of Jackson , Mississippi . Traveling briskly to the northeast , it became severe within 25 minutes and potentially tornadic by 1 : 36 p.m. CDT . A tornado finally touched down at 2 : 30 p.m. CDT just east of the Philadelphia Municipal Airport . It quickly intensified and began producing EF5 damage by 2 : 38 p.m. CDT ; extreme ground scouring , up to 2 feet (0 @. @ 61 m) deep in places , occurred in northeastern Neshoba County . After crossing into Kemper County , the tornado obliterated a mobile home , killing all three inside . It reached EF5 strength a second time near the Kemper ? Winston county line where extreme ground scouring again took place and pavement was scoured from roads . Extensive tree damage took place elsewhere along the track and it ultimately dissipated at 3 : 00 p.m. CDT about 6 miles (9 @. @ 7 km) north of Mashulaville .

= = Meteorological synopsis = =

The environmental conditions leading up to the April 2011 Super Outbreak were among the " most conducive to violent tornadoes ever documented " . On April 25 , a vigorous upper @-@ level shortwave trough moved into the Southern Plains states . Ample instability , low @-@ level moisture , and wind shear fueled a significant tornado outbreak from Texas to Tennessee ; at least 64 tornadoes touched down that same day . An area of low pressure consolidated over Texas on April 26 and traveled east while the aforementioned shortwave trough traversed the Mississippi River and Ohio River valleys . Another 50 tornadoes touched down on that day . The multi @-@ day outbreak culminated on April 27 with the most violent recorded day of tornadic activity since the 1974 Super Outbreak . Multiple episodes of tornadic activity ensued with two waves of mesoscale convective systems in the morning hours , followed by a widespread outbreak of supercells from Mississippi to North Carolina during the afternoon into the evening .

Activity on April 27 was precipitated by a 995 mbar (hPa ; 29 @. @ 39 inHg) surface low situated over Kentucky and a deep , negatively tilted (aligned northwest to southeast) trough over Arkansas and Louisiana . A strong southwesterly surface jet intersected these systems at a 60 ° angle , an ageostrophic flow that led to storm @-@ relative helicity values in excess of 500 m²s @-@ 2 ? indicative of extreme wind shear and a very high potential for rotating updrafts within supercells . Ample moisture from the Gulf of Mexico was brought north across the Deep South , leading to daytime high temperatures of 77 to 81 ° F (25 to 27 ° C) and dewpoints of 66 to 72 ° F (19 to 22 ° C) . Furthermore , convective available potential energy (CAPE) values reached 2 @, @ 500 ? 3 @, @ 000 J / kg @-@ 1 .

= = Tornado summary = =

Around 1 : 00 p.m. CDT , a supercell thunderstorm developed south of Jackson , Mississippi , and traveled northeast at 55 mph (89 km / h) . About 25 minutes later , the intensifying storm became severe and prompted a severe thunderstorm warning ? advising residents of damaging winds in excess of 60 mph (97 km / h) and 1 @-@ inch (2 @. @ 5 cm) diameter hail ? from the National Weather Service office in Jackson for Leake , Rankin , and Scott counties . The developing storm gradually developed a hook echo signature , and a tornado warning was issued for Leake and Scott counties at 1 : 36 p.m. CDT , and extended to Neshoba County at 2 : 03 p.m. CDT . At 2 : 30 p.m. CDT , the storm produced a small tornado along the northern edge of Philadelphia , just east of Philadelphia Municipal Airport and near an Army National Guard armory . Here , large trees were

downed and a building sustained significant roof damage . Within minutes , the tornado began producing EF2 damage to homes and other structures . It soon grew to 900 yards (820 m) in diameter and warranted the issuance of a tornado emergency for northeastern Neshoba County at 2 : 36 p.m. CDT .

Traveling along and parallel to Highway 21 , the tornado leveled and partially swept away a brick home near the intersection with Highway 491 , indicative of low @-@ end EF4 damage . A debris ball was apparent on Doppler weather radar imagery by this time . The storm began producing EF5 damage at 2 : 38 p.m. CDT in northeastern Neshoba County . Tremendous ground scouring took place in the county , with up to 2 feet (0 @. @ 61 m) of soil removed . Grass was torn out by the roots and in clumps by suction vortices embedded within the tornado . Large trees were entirely uprooted , debarked , defoliated , and thrown up to 20 yards (18 m) as well . Maximum winds in the tornado were estimated at 205 mph (330 km / h) . The storm moved through the Pearl River Resort , where it destroyed a historic log cabin , fencing , lighting , and dugouts at two baseball fields . As the storm neared the edge of Neshoba County , the tornado emergency was extended to include northern Kemper County , southeastern Winston County , and all of Noxubee County . The tornado weakened briefly as it passed through the small community of Coy along the Neshoba ? Kemper border . Extensive tree damage took place in the area and a mobile home was destroyed . Upon leaving the community , the tornado intensified and produced EF5 damage again by 2 : 47 p.m. CDT . Throughout Neshoba County , the tornado damaged or destroyed 91 structures , rendering 32 people homeless .

In Kemper County , a 3 @, @ 000 ft² (280 m²) mini @-@ mart was damaged beyond repair . Eleven people sought refuge inside the building 's bathroom when the tornado struck ; all escaped without injury . Along the border of Kemper and Winston counties , EF5 damage occurred as extremely deep ground scouring took place again and asphalt was ripped from roads . On Green Road , a double @-@ wide mobile home , anchored to the ground , was lofted 300 yards (270 m) and obliterated when it landed in a nearby tree line ; debris from the home was scattered hundreds of yards farther . The survey team found no evidence of it having bounced or rolled from where it was picked up to where it impacted the tree line . All three occupants were killed , the sole fatalities from this tornado . Nearby , the tornado weakened to EF3 strength as two brick homes were destroyed with barely any interior walls left standing ; two people sustained serious injuries . A well @-@ built frame wood home was nearly swept clean off its foundation and two trailers were destroyed . Cars were hurled hundreds of yards , often bouncing along the way , and some were rendered almost unrecognizable and were wrapped around trees . Continuing through southeastern Winston County , the tornado weakened slightly to EF2 strength but continued to produce extensive tree and property damage . As it crossed Central McDonald Road , it destroyed a single @-@ wide mobile home and leveled a nearby grove of pine trees .

As the tornado approached the Winston ? Noxubee border , it caused substantial roof damage to a church and left impact holes in the back wall . Extreme tree damage was noted along the border as the tornado regained EF3 intensity . Along Butler Road , to the southwest of Macon , additional pavement scouring took place , along with the destruction of a shop and a bus being rolled . Thereafter , the tornado steadily weakened before dissipating roughly 6 miles (9 @. @ 7 km) north of Mashulaville at 3 : 00 p.m. CDT . Throughout its 30 minute track , the tornado traveled almost 29 miles (47 km) , killed three people , injured eight others , and caused \$ 1 @. @ 1 million in damage .

The supercell that produced this EF5 tornado later spawned an EF1 in northeastern Noxubee County at 3 : 18 p.m. CDT . The parent storm dissipated around 3 : 29 p.m. CDT as another supercell overtook it near the Mississippi ? Alabama state line . The cell produced an exceptionally long @-@ lived EF4 that traveled nearly 124 miles (200 km) across Alabama . The Philadelphia tornado marked the first instance of an F5 or EF5 tornado in Mississippi since the March 3 , 1966 , Candlestick Park tornado . Following another EF5 that struck Smithville later on April 27 , the outbreak marked the first known instance of two EF5 tornadoes on a single day in Mississippi .

= = Aftermath = =

Immediately following the destructive tornadoes , Mississippi Governor Haley Barbour declared a state of emergency for 39 counties . On April 29 , President Barack Obama signed a major disaster declaration for 29 Mississippi counties in the wake of the Super Outbreak and another deadly outbreak on April 15 . This allowed residents and some local governments to sign up to receive federal funding to repair damage incurred from the storms . More than 60 members of the Longino Baptist Church assisted residents of Neshoba County with debris removal and cleaning ; also providing refreshments . The Salvation Army established a feeding center at the Coy Methodist Church . Disaster unemployment assistance was made available for people who lost their jobs due to storms and flooding , starting on May 17 . By July , a total of \$ 15 @, @ 734 @, @ 072 in federal funding was approved through the Federal Emergency Management Agency for victims of the April 15 ? 28 storms .