= 2010 New Year 's Eve tornado outbreak =

The 2010 New Year 's Eve tornado outbreak was a three @-@ day @-@ long tornado outbreak that impacted the central and lower Mississippi Valley from December 30 , 2010 to January 1 , 2011 . Associated with a low pressure system and a strong cold front , 37 tornadoes tracked across five states over the length of the severe event , killing nine and injuring several others . Activity was centered in the states of Missouri and later Mississippi on December 31 . Seven tornadoes were rated EF3 on the Enhanced Fujita Scale ; these were the strongest during the outbreak . Non @-@ tornadic winds were recorded to have reached as high as 80 mph (130 km / h) at eight locations on December 31 , while hail as large as 2 @.@ 75 in (7 @.@ 0 cm) was documented north @-@ northeast of Mansfield , Missouri . Overall , damage from the outbreak totaled US $ 123 @.@ 3 million , most of which was related to tornadoes .

The United States Storm Prediction Center first noted a possible New Year 's Eve severe weather event as early as December 25 , 2010 . These forecasts gained confidence as the event approached , with a focus on the Ozarks and adjacent areas . Supercells developed in this area during the night of December 30 and tracked across central Missouri , producing several tornadoes and large hail . However , the bulk of activity during the outbreak was a result of a long line of supercells that tracked from Oklahoma to Illinois , producing five EF3 tornadoes . One of these tracked through northwestern Arkansas , killing four . Another tore through eastern sections of Fort Leonard Wood in Missouri , destroying 159 homes and causing US $ 90 million in damage , making it the costliest tornado of the outbreak . A separate cluster of storms later developed in Louisiana before tracking into Mississippi , producing several tornadoes across southern and central regions of the state on January 1 .

= = Meteorological synopsis = =

The Storm Prediction Center (SPC) began to note the possibility that a severe weather event could develop on December 30 as early as December 25 , 2010 . Nonetheless , the predictability of the event was too low as the event was several days out . As the anticipated event grew closer , confidence in the forecast slowly increased , though uncertainties in the timing and extent of the tornado outbreak still existed . These uncertainties remained through December 29 with forecasts calling for only marginal hail and possibly damaging gusts . However , the SPC indicated that supercells and more severe weather could result from atmospheric conditions deviating slightly from the forecast . In contrast , forecasts were more confident in a widespread outbreak of severe weather for New Year 's Eve ; the SPC issued a slight risk outlook for much of the Lower Mississippi Valley and the Ozarks as a result .

Atmospheric conditions remained only marginally conducive for the development of thunderstorms on the morning of December 30 . Throughout the day , moisture was drawn from the Gulf of Mexico northward into the Ozarks region . However , the presence of a capping inversion prevented thunderstorms from developing . During the evening of December 30 , an area of strong wind shear developed near the Ark @-@ La @-@ Tex and southeastern Oklahoma area well ahead of a nearing cold front , providing a focal point for potential storm development . Late that day , scattered thunderstorms developed over eastern Oklahoma and northern Arkansas , producing significant hail . Over the next few hours and into December 31 , these storms would intensify as they moved into southwestern Missouri , producing four tornadoes . The first tornado watch issued in association with the severe event was issued at 07 : 06 UTC on December 31 as these storms tracked across the Ozarks . After a few hours , these supercell thunderstorms lessened in strength as they neared the Greater St. Louis metropolitan area .

While the cluster of thunderstorms was tracking through Missouri , a new line of thunderstorms with embedded supercells developed across eastern Oklahoma and Kansas , demarcating a dry line boundary . Although linear storm systems tend to indicate strong wind events and not tornadoes , these storms tracked eastward into southwestern Missouri . A long @-@ tracked EF3 developed from one of these supercells and struck Cincinnati , Arkansas . At 13 : 31 UTC on December 31 , a

tornado watch was issued for much of Missouri and portions of Arkansas and Illinois . Most of the tornadoes during the outbreak stemmed from this line of storms as they moved through Missouri and Illinois throughout the day . At around noon , a new cluster of disorganized showers formed over eastern Louisiana and southern Mississippi . Although these storms were initially weak , they gradually intensified into supercells as the day went on . Additional supercells quickly developed over Louisiana and eventually spread in coverage over Mississippi , resulting in the development of several tornadoes . Reaching their peak strength over Mississippi , the storms gradually lost their intensity as they tracked eastward late on December 31 and into January 1 , 2011 . By the morning hours of January 1 , severe activity had become restricted to the Florida Panhandle and southern Alabama ; the last tornado watch issued in association with the 2010 New Year 's Eve tornado outbreak was issued for those regions at 15 : 56 UTC that day .

= = Tornadoes = =

= = = December 30 event = = =

= = = December 31 event = = =

= = = January 1 event = = =

= = Notable tornadoes = =

= = = Cincinnati , Arkansas = = =

The deadliest tornado of the 2010 New Year 's Eve tornado outbreak moved across extreme eastern Oklahoma and northwestern Arkansas , tracking 21 @.@ 1 mi (34 @.@ 0 km) and damaging the unincorporated community of Cincinnati , Arkansas . The first tornado warning associated was issued at 12 : 00 UTC for portions of Adair County in Oklahoma and Benton and Washington counties in Arkansas by the National Weather Service Tulsa , Oklahoma . At around the same time , damaging winds estimated at around 70 mph (110 km / h) tore the roof off of a barn southwest of Westville , Oklahoma ; these winds were likely a result of inflow caused by the developing tornado . Post @-@ tornado survey teams concluded that the tornado touched down five minutes later northeast of Westville . Quickly tracking northeast , the tornado snapped 13 large wooden utility poles . Four cars were displaced by 20 ? 50 yd (18 ? 46 m) and a nearby home sustained significant roof damage and broken windows ; this resulted in an EF2 rating for the tornado within Adair County . Damage in Adair County totaled $ 60 @,@ 000 . At 12 : 08 UTC , the tornado crossed the Oklahoma @-@ Arkansas border and moved into Benton County , Arkansas .

At 12 : 10 UTC , the tornado tracked into Cincinnati , Arkansas , where it reached its peak intensity . Winds were estimated as high as 142 mph (229 km / h) and the tornado widened to a width of 300 yd (270 m) , making the tornado an EF3 at this location . Several homes were destroyed or heavily damaged in the southwestern areas of the town . Numerous trees and power poles were knocked down or uprooted . Two people were killed when a mobile home was destroyed , while another person died as he was tending cattle when the barn he occupied collapsed . Seven others were injured in Cincinnati . The tornado continued to widen as it trekked northeastward , reaching a maximum width of 500 yd (460 m) . Several permanent homes were heavily damaged northeast of Cincinnati , and a number of chicken houses , mobile homes , outbuildings , and power poles were destroyed . One woman was critically injured after her mobile home was destroyed ; she died of her injuries at a hospital four days later . Damage in Cincinnati and surrounding areas within Benton

County reached $ 1 @.@ 5 million .

After 12 : 17 UTC , the tornado 's position fluctuated between Benton and Washington counties in northwestern Arkansas . Permanent houses were damaged and mobile homes were destroyed . Numerous trees were uprooted or snapped while many other power poles were snapped . Two people were injured following the destruction of a mobile home within the Ozark National Forest in Benton County , while another person was injured west of Tontitown , Arkansas in Washington County . The tornado finally dissipated northwest of Tontitown at 12 : 27 UTC after causing four deaths and ten injuries . Overall , the tornado caused $ 1 @.@ 835 million in damage , which was the sixth costliest total during the tornado outbreak .

= = = Fenton ? Sunset Hills , Missouri tornado = = =

At 17 : 22 UTC on December 31 , the National Weather Service St. Louis , Missouri issued a tornado warning for a severe squall line capable of producing rain @-@ wrapped tornadoes and wind damage . The warning covered ten counties in Missouri and Illinois straddling the Mississippi River and included St. Louis . Shortly after the warning 's issuance , two EF1 tornadoes tracked across Jefferson and St. Louis counties , causing extensive tree damage and minor property damage . However , the most destructive tornado from the passing squall line touched down at 17 : 48 UTC east @-@ northeast of Murphy , Missouri in northern Jefferson County . Initially , the tornado was an EF0 with a path width of 40 yd (37 m) and lifted before touching down again just north of Missouri Route 30 near the Jefferson @-@ St. Louis county line . Small trees and minor roof damage occurred at the point of this second touch down before the tornado moved northeastward into St. Louis County , where the tornado caused a bulk of its damage and was at its strongest .

A large subdivision near Route 30 sustained minor roof and tree damage , which was rated as EF0 intensity . However , as the tornado was intensifying through the neighborhood , three homes to the subdivision 's east suffered more considerable roof and siding damage and was assigned an EF1 damage intensity rating . The tornado then crossed Missouri Route 141 , where it blew a Honda CR @-@ V into a highway barrier ; the driver of the vehicle suffered critical injuries and died eleven days later from those injuries . After crossing the highway , a number of buildings were damaged including a church , elementary school , and parsonage . Damage in this area was rated as EF2 due to the partial debarking of a nearby tree . Minor tree damage occurred as the tornado moved through Fenton Park and tracked over the Meramec River .

After crossing the river , the tornado weakened to EF1 strength , damaging several homes while also leaving behind an interrupted damage path . The tornado crossed Interstate 270 before rapidly intensifying at around 17 : 56 UTC . Numerous trees were uprooted while many homes sustained considerable damage . Six homes were unroofed and one was destroyed and shifted from its foundation ; this damage was rated high @-@ end EF3 . At the time , the tornado was 0 @.@ 25 mi (0 @.@ 40 km) wide . The tornado weakened to EF1 intensity afterwards , causing more minor damage to a strip mall and several homes . Six power poles were knocked down shortly before the tornado lifted at 18 : 00 UTC in western Crestwood , Missouri .

= = Non @-@ tornadic impacts = =

Beginning on December 29 and continuing for three days , the storm system associated with the tornado outbreak caused strong winds across the Texas Panhandle and eastern New Mexico . The winds were further enhanced by isolated showers , and gusts peaked at 79 mph (127 km / h) in Tatum , New Mexico . Approximately 7 mi (11 km) west of Levelland , Texas , the winds downed four power poles , sparking a fire that burned nearly 2 @,@ 000 acres (800 hectares) of grassland before it was finally contained ; the fire caused US $ 20 @,@ 000 in damage . In Allen , Oklahoma , strong winds associated with one supercell caused an estimated US $ 20 @,@ 000 in damage after damaging the carport , chimney , and roof of a house . Hail and strong winds were also reported elsewhere in eastern Oklahoma and southeastern Kansas . Widespread and damaging wind gusts

and hail later crossed into northwestern Arkansas , causing US $ 175 @,@ 000 in damage . Several buildings and homes were destroyed by the strong winds ; similar impacts were seen in Missouri and Illinois .

In Mississippi , rainfall totals between 1 ? 4 in (25 ? 102 mm) were widespread . The highest precipitation total was 5 @.@ 58 in (142 mm) south of Grace , Mississippi . In Scott County , residents were forced to evacuate out of Forest and Morton due to flash floods that caused $ 470 @,@ 000 in damage . Similarly , the inundation washed out roads and flooded cars in Winona . Overall , flood damage in Mississippi amounted to US $ 1 @.@ 135 million .