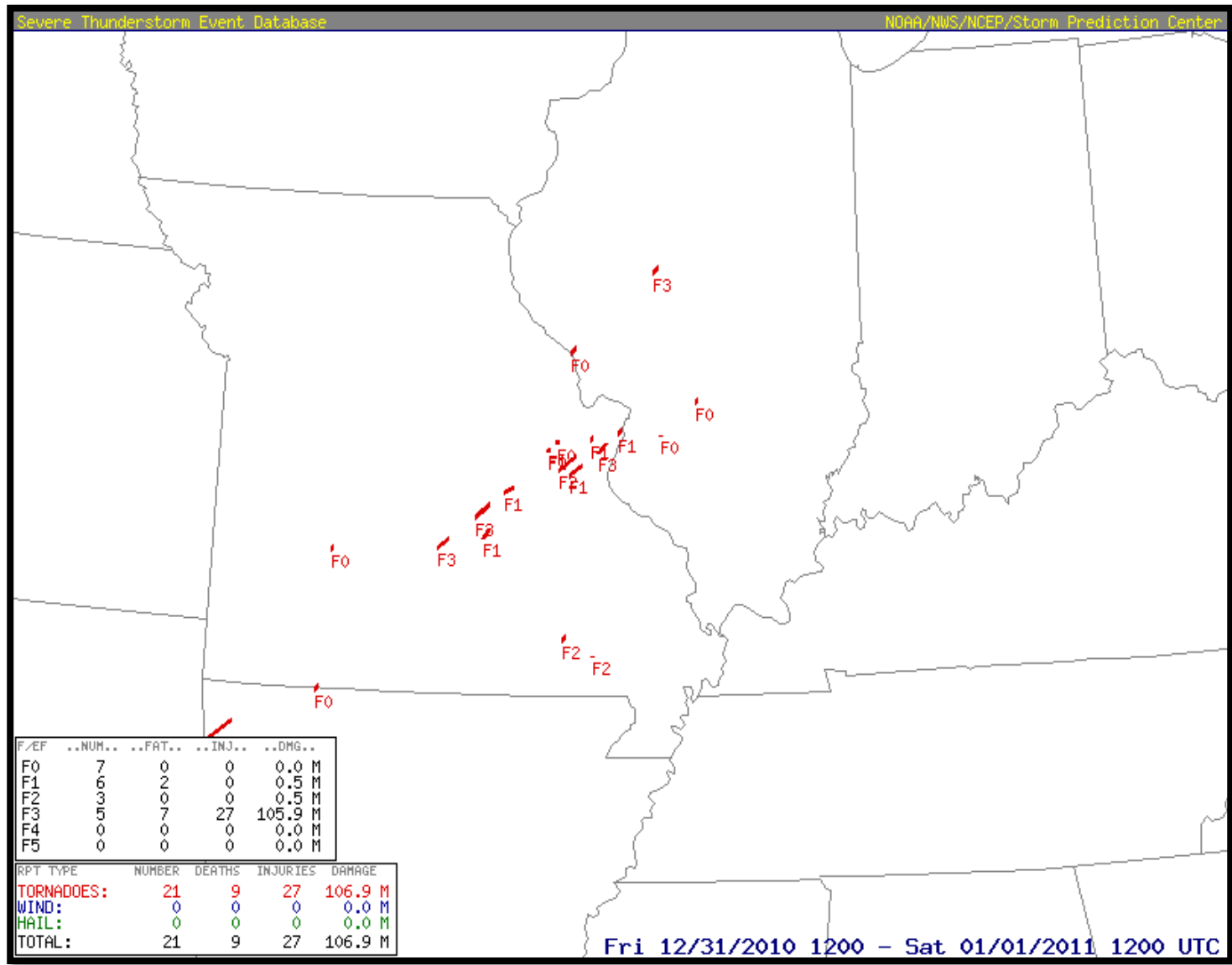


# New Years Eve Tornado Outbreak

## December 31<sup>st</sup>, 2010

### Overview

A tornado outbreak occurred on New Years Eve, December 31<sup>st</sup>, 2010. The National Weather Service surveyed and confirmed twelve tornado tracks. The strongest tornado occurred in Sunset Hills in St. Louis County and was rated a high end EF3 on the Enhanced Fujita Scale. One person was killed and six were injured by this tornado. The second strongest tornado occurred in Robertsville, Missouri in Franklin County and was rated EF2.



# Damage Survey

## Sunset Hills EF3 Tornado

The tornado initially touched down at 11:48 AM approximately one mile east of Murphy, Missouri on Lakewood Road in far northern Jefferson County. The damage path was 40 yards wide. The tornado's second touchdown occurred at the Jefferson, St. Louis County Line at Delmar Gardens on Arbor Road. Small trees and minor roof damage occurred at Delmar Gardens. The damage path was 50 yards wide and rated EF0. The tornado continued to skip northeast along Highway 30 through a large subdivision in which many homes sustained minor roof and tree damage, however three homes on the east end of the subdivision sustained both siding damage and a greater degree of roof damage. The width of the damage area was 100 yards. Damage intensity over much of the subdivision was EF0, except for the three homes, this damage intensity was rated EF1.

The tornado crossed Highway 141 just north of Highway 30. A 2007 Honda CR-V was being driven northbound on Highway 141 when the tornado picked it up and slammed it sideways into a wall along the highway. The occupant, a 70 year old woman, sustained major injuries and died about eleven days later from her injuries. The tornado then hit a church, elementary school and parsonage, which sustained various degrees of damage with the parsonage having the highest degree of damage. Most of the roof was removed and one wall collapsed. Three trees sustained substantial damage in which one tree was partially debarked. Damage intensity was rated EF2 while the damage width was 100 yards.

The tornado moved through the Fenton City Park and crossed the Meramec River 1/2 mile north of Highway 30. Much of the tree damage was minor over this area. The tornado paralleled Watson Road and crossed it near Bond Road where three separate large trees damaged a house, vehicle and garage. The tornado continued northeast and crossed Interstate 270, two miles southeast of Interstate 44. Just east of I-270 the tornado paralleled Old Watson Road in which an intermittent path of damage was observed. One home northeast of I-270 sustained minor roof damage and a second home further northeast experienced shingle and tree damage. The damage over this area was rated EF1 while the damage width was 50 yards.

At approximately 11:56 AM the tornado rapidly intensified as it neared Lindbergh Blvd. Many trees in Watson Trail Park were snapped or uprooted. Seven homes along Old Watson Road sustained varying degrees of damage. Peak intensity was EF3 with 145 mph winds. Two homes had the roofs removed and most of the exterior walls collapsed. Several homes along Court Drive sustained significant damage. The worst damage occurred on the east end of Court Drive in which four homes had large portions of the roof removed and one had several walls collapsed. Damage intensity was rated EF3 with wind speeds near 150 mph.

On Lindbergh Blvd, one home was completely demolished and moved less than 50 yards from the foundation. A brick veneer garage was also destroyed by the tornado. Further north on Lindbergh a medical facility also sustained heavy damage. Damage over this area was rated EF3, but the demolished home was rated high-end EF3. Damage width over this area was 1/4 mile.

The tornado crossed Lindbergh near Court Drive and crossed over a strip mall. Two cars and a delivery truck were tipped over in the parking lot. Several windows were blown in on the stores in the strip mall and a greenhouse behind and adjacent to the mall suffered roof and water pipe damage. The tornado made a turn to the east-northeast and crossed the east end of Woodfox Drive. About a dozen pine trees along the east end of Woodfox Drive were blown over, all lying to the north. Eight homes on Woodfox Drive suffered roof damage and several trees were either pushed over or snapped off about halfway up the trunk. The tornado crossed Woodpark Drive where it caused roof damage to three more homes and downed a large oak tree. One home had the roof lifted and partially removed. The damage path width from Woodfox to Woodpark was 300 yards wide and was rated EF1.

The tornado then turned a bit to the northeast and crossed Eggerling and Gladlea Drives. On Eggerling, four homes suffered roof damage and several trees were downed. On Gladlea Drive, three homes suffered roof damage and several more trees were downed. This damage path was 150 yards wide and rated EF0. The tornado crossed East Watson between Lynn Lane, Watson Woods Court, and Kathy Court. On Lynn Lane, a couple of trees were snapped off and two homes suffered roof damage and had windows blown in. This portion of the damage path was 100 yards wide and rated EF1.



# Damage Surveys

## Sunset Hills EF3 Tornado Continued

The tornado crossed over Kathy Lane and Fern Glen Drive. Some large tree branches were broken which took down some power lines. This damage was rated EF0 and the damage path was 100 yards wide.

The tornado continued northeast and crossed the area near Maybern Terrace, Sturdy Drive and Crestwood Lane. At Sturdy and Maybern Terrace, two homes suffered roof damage with one home having the roof lifted and partially removed. A couple of large trees were also downed in this area. This damage was EF1 and 100 yards wide. The tornado continued northeast to Watson Road with minor tree and roof damage noted. Six power poles were pushed over along Watson Road. The tornado continued northeast with additional damage to trees and roofs until it weakened and lifted at the intersection of Rayburn Avenue and Sappington Road.

The maximum damage for this tornado has been rated at EF3, with a path length of 6.7 miles and a maximum width of damage of 440 yards. One death and six injuries were reported with this tornado.





# Damage Surveys

## Robertsville (Franklin County, MO) EF2 Tornado

At 11:19 am, the tornado touched down around three quarters of a mile southwest of Bruns Bridge on Mill Hill Road and four tenths of a mile east of the northern end of Ely Road, within the Meramec River valley. The tornado moved rapidly northeast at 50 mph crossing the Meramec River six times while producing extensive tree damage along its entire path to Robertsville. Large sections of trees were completely leveled within wooded areas in rural southeast Franklin County. Over two dozen structures were also damaged along the path to the southwest of Robertsville, including one house that was totally destroyed at the intersection of Eagle Ridge Road and Woods Creek Road, and another building on south Oak Drive. In Robertsville, seven homes were damaged on Hayfield Drive in the Hayfield Estates subdivision, with two sustaining significant damage. The tornado then hit the Shiloh Baptist Church causing severe damage to its west facing wall, and leveling the old church sanctuary just north of the church. The tornado then destroyed a building at the intersection of Route O and Route N as it exited town. The tornado weakened some as it moved northeast of Robertsville moving across the southeast portion of the Robertsville State Park and crossing Highway N just south of Mueller Road, about six tenths of a mile north of Catawissa. The tornado then continued northeast, crossing Solidarity Drive, which is on the Franklin/Jefferson county line, into Jefferson County.

The tornado continued to the northeast. The path narrowed as it crossed Highway F just west of Lake Cattails. The tornado finally lifted around 11:35 am near the northeast corner of Lake Cattails, 2 miles southeast of Pacific. The damage along this segment consisted of snapped trees, tree limbs and downed trees, and missing or damaged shingles on a few homes. Nearly all of the damage to the northeast of Robertsville consisted of snapped or downed trees and minor superficial damage to a few buildings and homes. The damage for this tornado has been rated at EF-2 with a total path length of 12.4 miles. Width of damage in most areas was 175 yards, although at its widest point the damage was around 370 yards.





# Damage Surveys

## Ballwin (St. Louis County, MO) EF1 Tornado

The initial tornado touchdown occurred at 11:48 am just northwest of the intersection of Manchester Road and Birchwood Drive. The tornado traveled quickly northeast at around 45 mph crossing Kehrs Mill Road, passing through the east side of the Ballwin Golf Course, then crossing Holloway Road and Baxter Road. The tornado lifted just east of the intersection of Brass Lamp Drive and Morewood Court between 11:50 and 11:51 am.

There were numerous occurrences of tree damage along the tornado path including snapped trees and tree branches and uprooted trees. Nearly three dozen homes sustained damage, although the vast majority of this damage was superficial consisting of damaged fascia, soffit, and missing/damaged shingles. The maximum damage for this tornado has been rated at EF1, with a path length of 1.76 miles and a maximum width of damage of 175 yards.





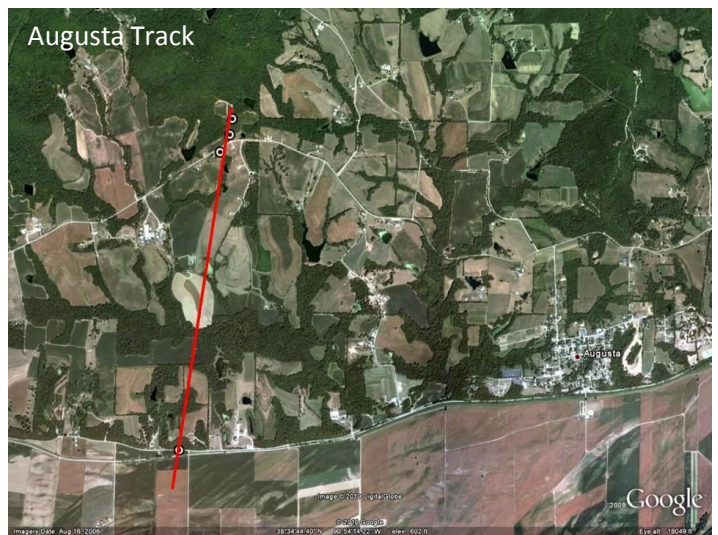
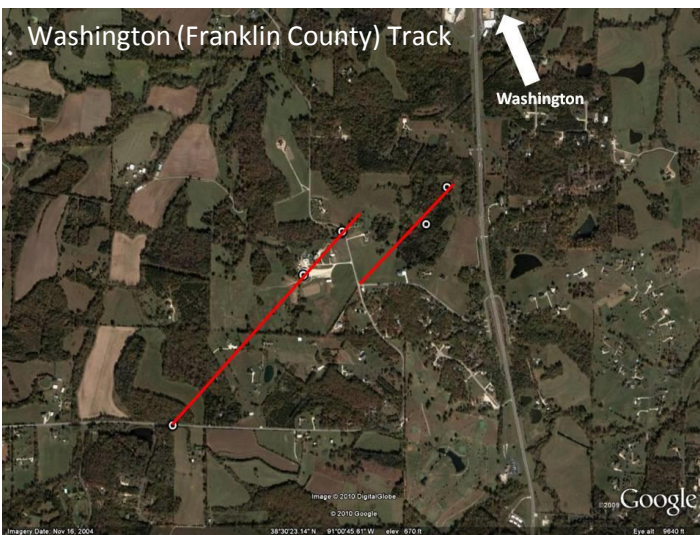
# Damage Surveys

## Washington (Franklin County) EF1 and EF0 Tornadoes and Augusta (St. Charles County) EF0 Tornado

### Washington EF0 and EF1 Tornadoes

A survey of Franklin County a few miles south of Washington, MO revealed two short tornado tracks. The first tornado touched down along County Club Road and produced minor tree damage. It continued northeast and struck a farm where it removed the majority of the roof from a large metal pole barn. Another outbuilding sustained roof damage and the residence had some shingles blown off. The damage to the pole barn is rated EF1 intensity while the rest of the damage at this location was EF0. The tornado crossed Country Club Road near a sharp curve to the west. A house had shingles missing at this location as well as minor tree damage. The tornado lifted just past this point. The maximum intensity has been rated EF1 with maximum wind speeds of 90 mph. The path width was 100 yards and a path length of 3/4 of a mile.

A second weaker tornado formed near the intersection of Country Club Road and Country Club Lane where it blew over a road sign and produced minor trim damage to a home. The tornado continued northeast and passed through a new subdivision and produced minor tree damage. The tornado lifted before reaching Highway 47. The intensity of this tornado has been rated EF0 with a path width of 50 yards and a path length of 1/2 mile.



### Augusta EF0 Tornado

The tornado first touched down on the Missouri River flood plain south of Augusta Bottom Rd. A barn was knocked down along Augusta Bottom Road and had part of its roof thrown across the road. The tornado proceeded to move up the bluff and continued north-northeast where it uprooted a tree and produced minor exterior damage to a house on the south side of Highway 94. The tornado crossed Highway 94 and removed part of the metal roof of an outbuilding. The roof debris was blown several hundred yards from the structure. Some of the sheet metal could be found in a tree line well north of the building where the tornado lifted. Maximum intensity is rated EF0 with a maximum width of 50 yards and a length of 2 miles.



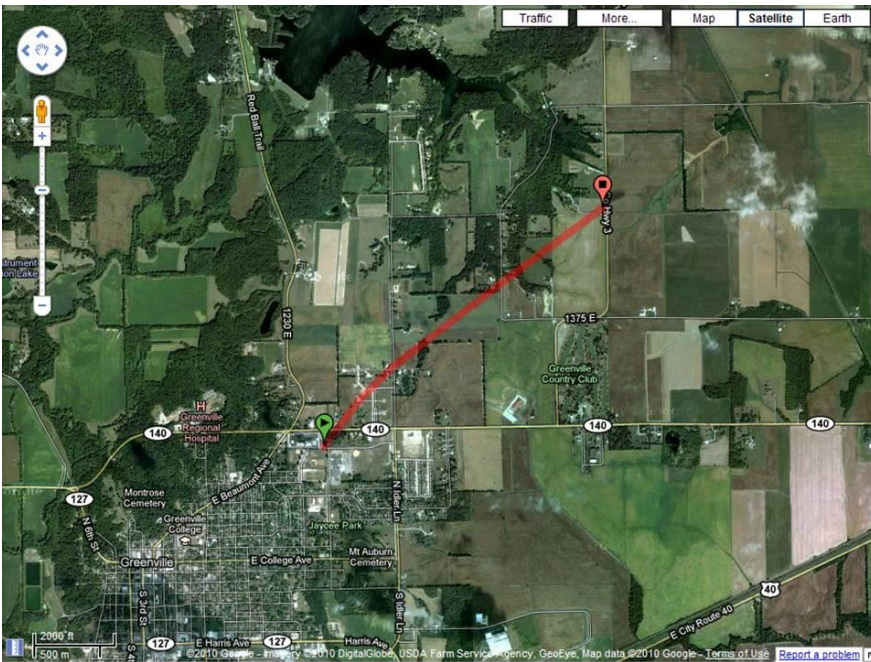


# Damage Surveys

## Greenville (Bond County, IL) EF0 Tornado

National Weather Service personnel conducted a storm survey on Friday afternoon and determined that an EF-0 tornado caused the damage in and northeast of Greenville, Illinois on December 31, 2010.

Tornado damage was first noted on the north side of Greenville near the intersection of North Hena and North Dewey Streets. An agricultural building at the high school sustained roof damage with some additional minor roof and tree damage noticed at an adjacent house. Wind speeds in this area were estimated to be near 85 mph. The tornado then moved northeast causing significant damage to a large tree on the north side of Illinois Route 140. Minor roof and siding damage was noted on several houses on Cloverfield Lane and North Idler Lane. The tornado continued northeast producing additional minor roof and tree damage on Country Club and Woburn Roads before dissipating. The maximum damage for this tornado has been rated at EF0, with a path length of approximately 1.7 miles with a maximum width of 100 yards.









## Damage Surveys

### **Mozier (Calhoun County, IL) EF0 Tornado**

The tornado touched down three miles north-northwest of Mozier in the Calhoun County Conservation Area called Rip Rap Landing. It crossed Illinois Route 96 near West Panther Creek Road and then traveled northeast crossing Hootowl Hollow Road before dissipating just west of Hillcrest. Damage was confined to uprooted trees and rated EF0 with a maximum wind speed of 85 mph. The tornado path length was three miles with a maximum width of 50 yards.

### **4 NW Cedar Hill EF1 Tornado**

The damage resulted from a tornado that skipped along a path from near Highway 30 and HH in southeast Franklin County to 2 miles north of Cedar Hill.

The tornado initially touched down northeast of Highway 30 and HH in southeast Franklin County at 1127 a.m. Several medium size tree limbs were snapped in the upper parts of the trees. The width of the tree limb damage was 20 yards.

The tornado skipped northeast and moved into northwest Jefferson County. Additional medium to large tree limbs were snapped while some medium size trees were uprooted along the Dittmer-Catawissa Road or 3 miles northwest of Dittmer. As the tornado continued to skipped northeast several large trees including large pine trees were snapped at the base or uprooted on Highway NN or 3 miles north of Dittmer. The tree damage was on a ridge crest along Highway NN. The damage was rated EF1 at this location. The damage width was approximately 50 yards. The tornado moved northeast and caused minor tree damage on Dutch Creek Road 1.5 miles southwest of Byrnesville. The tornado lifted approximately at 1135 a.m.

The total damage path was approximately 8 miles. Much of the tree damage was rated EF0 except for the tree damage along Highway NN in which the tree damage was rated EF1.

### **Lebanon, Illinois EF0 Tornado**

National Weather Service Personnel conducted a damage survey to the northeast of Lebanon, Illinois and identified that a tornado caused damage near Emerald Mound Grange Road, 2.5 miles northeast of Lebanon, Illinois. Damage was confined to a few outbuildings and trees and was rated EF0. The tornado path length was less than one-half mile and the width was 50 yards.

### **Crawford County, Missouri EF1 Tornado**

The tornado touched down near Highway F and one quarter mile south of Jakes Prairie Road. Damage consisted of tree branches snapped. The damage was rated EF0 at this location.

The tornado touched down nearly two miles northeast of the first sign of damage, southwest of Four Mile Road and Brush Creek. There was some large tree limb damage west of the road along the creek. However a greater degree of tree damage occurred along Brush Creek east of Four Mile Road. The width of the damage area ranged from 50 to 75 yards east of the road. This area of tree damage extended over 2 miles to the east-northeast. The width of the damage over this area was over 100 yards wide.

The next point of damage was on Highway 19, one-half mile south of County Road C. Minor tree damage was noted at this location. Tree limbs up to six inches were snapped half way up the tree trunk. The tornado traveled northeast and damaged one home and one farmstead on Taylor road. The owner of the house that was damaged described the tornado as a swirling rain - "rain rotating in a circle", which confirms that the tornado was completely rain wrapped. The house suffered damage to the roof and patio. Several medium to large trees were snapped half way up the trunk to the west of the home, which is about 75 to 100 yards away. The tornado crossed Taylor road and damaged several trees on a hill north of Taylor Road. Some of these trees were snapped near the base of the trunk. The tornado then hit the first or two farmsteads. Several panels from a barn's roof were peeled off, but the overall structure was intact. The roofs of three machine sheds were also removed and tossed to the northeast. The width of the damage area was approximately 75 yards wide.

The tornado skipped and caused minor damage to a barn and silo on a second farmstead on Ackermann Road just south of Highway C. There were a few trees uprooted and large limbs were snapped over the upper parts of several medium size trees. Additional tops from trees were snapped one-third mile southwest of Highways C and CC. An evergreen tree was destroyed along Highway C 1/4 mile east of C and CC.

Approximate start time of tornado touchdown was 1040 am and end time was 1046 am. The maximum damage for this tornado has been rated at EF1, with a path length of 6.36 miles and a maximum width of damage of 100 yards.



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)***