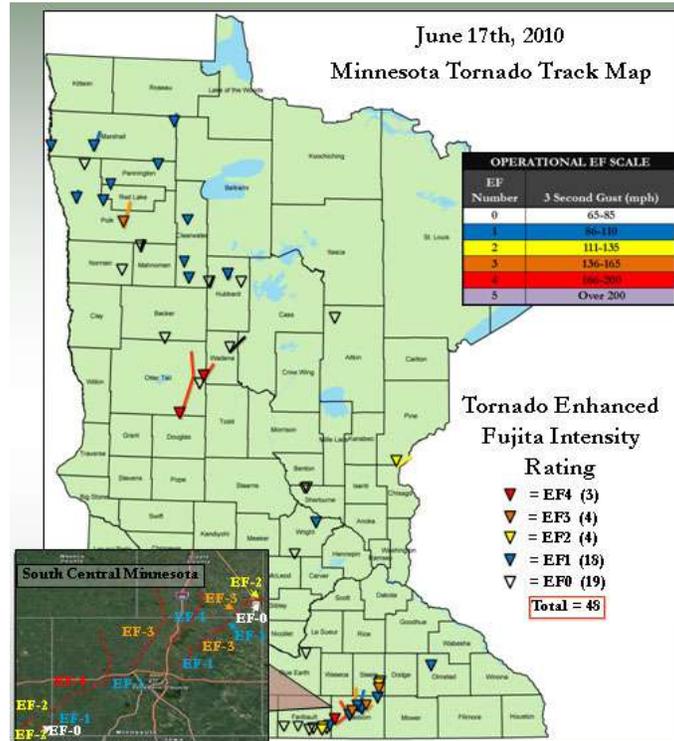


# June 17, 2010: Historic Tornado Outbreak Across Minnesota

The Chanhassen warning and forecast area covers 42 Minnesota counties, and on June 17 there were 25 tornadoes across those 42 counties. There were no tornadoes in our 9 Wisconsin counties that day, although there were tornadoes in other parts of Wisconsin served by the Duluth and La Crosse NWS offices.



**Tornado Tracks Across Minnesota on June 17**

Below is a list of those tornadoes in the Chanhassen area, including the time of touchdown, rating, and counties/areas affected. Note that tornadoes that formed in areas served by other NWS offices are not in this list.

|    | County             | Time of Touchdown (CDT) | Location of Touchdown | Rating  | Notes   |
|----|--------------------|-------------------------|-----------------------|---------|---|
| 1. | Douglas/Otter Tail | 343 PM                  | 3 NNE Leaf Valley     | EF1/EF4 | EF1 in Douglas County; strengthened to EF4 in Otter Tail County |
| 2. | Faribault          | 505 PM                  | 4 NW Elmore           | EF0     |   |
| 3. | McLeod             | 523 PM                  | 1 NNW Winsted         | EF0     |   |
| 4. | Blue Earth         | 537 PM                  | 2 NW St Clair         | EF0     |   |
| 5. | Faribault          | 540 PM                  | 3 NE Elmore           | EF0     |   |
| 6. | Sherburne          | 554 PM                  | 3 NE Clear Lake       | EF0     |   |
| 7. | Sherburne          | 556 PM                  | 3 NE Clear            | EF0     |   |

|     |                      |        | Lake                         |         |   |
|-----|----------------------|--------|------------------------------|---------|---|
| 8.  | Wright               | 600 PM | 2 NE Buffalo                 | EF1     |   |
| 9.  | Faribault            | 605 PM | 6 SE Frost                   | EF0     |   |
| 10. | Faribault            | 610 PM | 3 SSW<br>Bricelyn            | EF0     |   |
| 11. | Faribault            | 613 PM | SW Kiester                   | EF2     |   |
| 12. | Faribault            | 616 PM | NW Kiester                   | EF2     |   |
| 13. | Faribault            | 623 PM | 3 E Kiester                  | EF0     |   |
| 14. | Faribault/Freeborn   | 628 PM | 3 SE Walters                 | EF0/EF1 | EF0 in Faribault County;<br>strengthened to EF1 in<br>Freeborn County |
| 15. | Freeborn             | 633 PM | 1 WNW<br>Mansfield           | EF4     |   |
| 16. | Freeborn             | 655 PM | Armstrong                    | EF1     |   |
| 17. | Freeborn/Steele      | 705 PM | 3 WNW Albert<br>Lea          | EF3/EF2 | EF3 in Freeborn County; EF2<br>in Steele County                       |
| 18. | Freeborn/Steele      | 715 PM | Clarks Grove                 | EF1     | EF1 in both counties  |
| 19. | Freeborn             | 742 PM | 2 SW Lerdal                  | EF1     |   |
| 20. | Freeborn             | 747 PM | 1 SW<br>Hollandale           | EF3     |   |
| 21. | Freeborn             | 803 PM | 2 WSW Newry                  | EF1     |   |
| 22. | Steele               | 810 PM | 3 WSW<br>Blooming<br>Prairie | EF3     |   |
| 23. | Steele/Dodge         | 821 PM | 2 NNW<br>Blooming<br>Prairie | EF2/EF1 | EF2 in Steele County; EF1 in<br>Dodge County                          |
| 24. | Steele/Dodge         | 822 PM | 2 N Blooming<br>Prairie      | EF0     | EF0 in both counties  |
| 25. | Chisago/Pine/Burnett | 844 PM | 5 ENE Rush<br>City           | EF0/EF2 | EF0 in Chisago County;<br>strengthened to EF2 in Pine<br>County       |

### Complicated Damage Surveys

Damage surveys took many days, and some areas were surveyed by several different meteorologists to be certain of our findings. The survey was extremely complicated in the Kiester area, as well as in Freeborn and Steele Counties. There were multiple occasions when a tornado dissipated and a new one formed within ¼ mile. In two instances, an older tornado rotated around a newly developing one. There was one instance of a tornado crossing the path where another had been. Rear flank downdraft damage associated with some tornadoes complicated the surveys.

## **Videos and Photos**

As far as we know, 24 of the 25 tornadoes were videotaped or photographed, and all are separate tornadoes. The only one that was not videotaped or photographed was northeast of Rush City, but there was a clear and distinct tornado damage path found by the survey team.

## **A Record Day**

June 17, 2010 will go down as the day with the greatest single-day tornado total in Minnesota history. Combining the totals from the NWS offices in Chanhassen, Duluth and La Crosse, there were 27 tornadoes. However, the NWS office in Grand Forks has not been able to finalize their June 17 total. They had many tornadoes in their warning area, including tornadoes rated EF4 at Wadena and Almora. Thus, it is likely that the statewide total for June 17, 2010 will be in the 40s. This will easily eclipse the old record of 27 set on June 16, 1992.

## **Some Facts About This Tornado Outbreak...**

The 3 EF4 tornadoes in Minnesota were the first tornadoes EF4 or stronger in this state since the Granite Falls tornado on July 25, 2000.

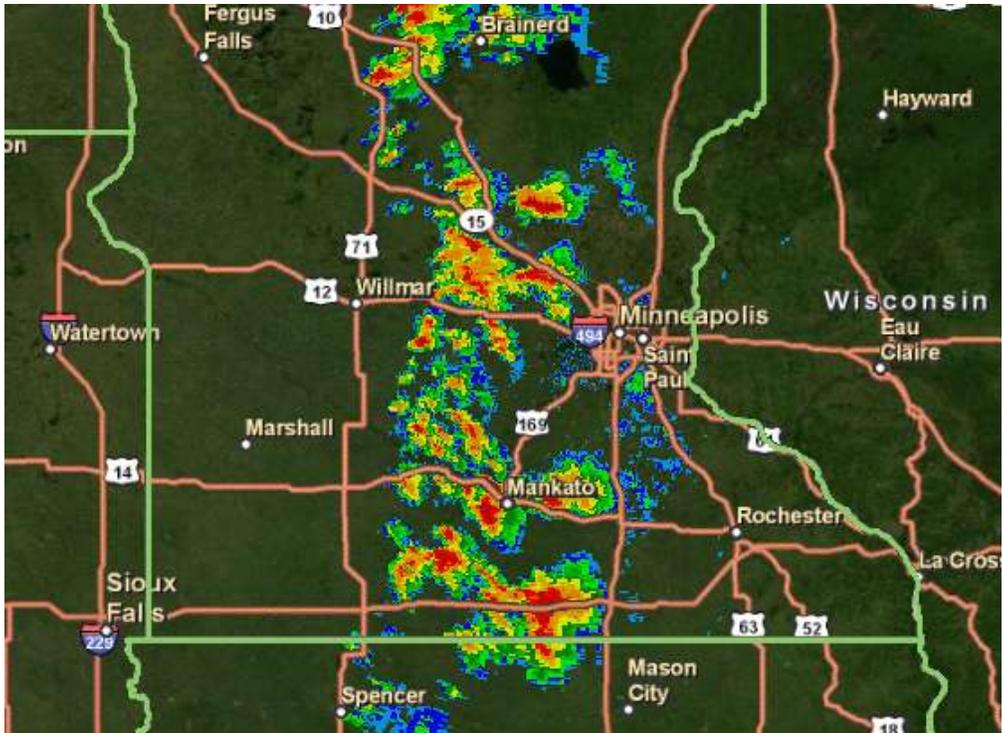
This was the greatest number of tornadoes rated EF-4 or greater in one day in Minnesota since the Black Sunday tornado outbreak on April 30, 1967.

This was the first Ef4 tornado in Freeborn County since the Black Sunday outbreak

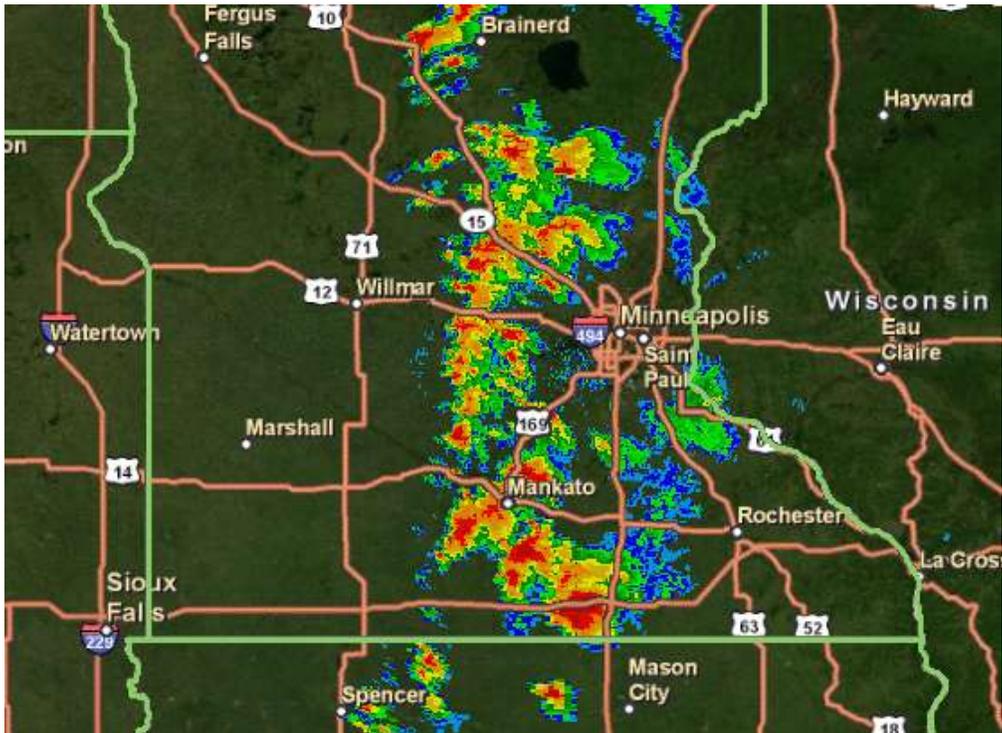
The 4 total EF4 tornadoes across the Upper Midwest on June 17, 2010 (3 in MN, and 1 in ND) were the most in any outbreak in the U.S. since the "Super Tuesday Outbreak" on February 5-6, 2008.

The number of tornado fatalities (4) on this day was the highest in Minnesota since July 5, 1978.

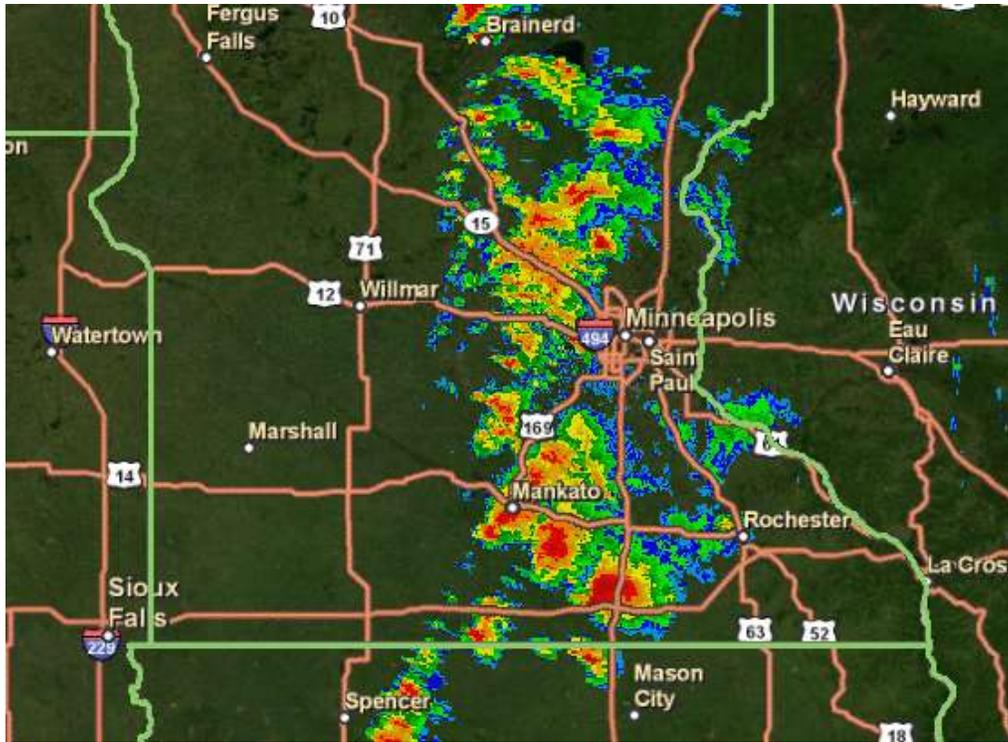
## **Radar Imagery**



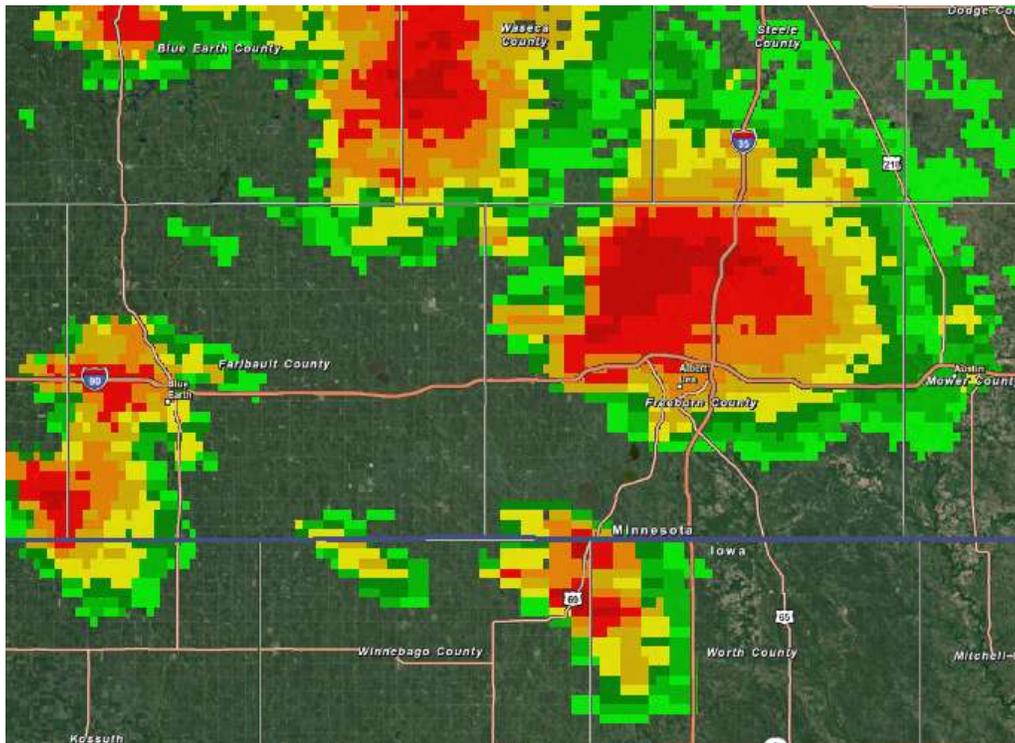
*MPX radar reflectivity image at 600 PM CDT, June 17, 2010*



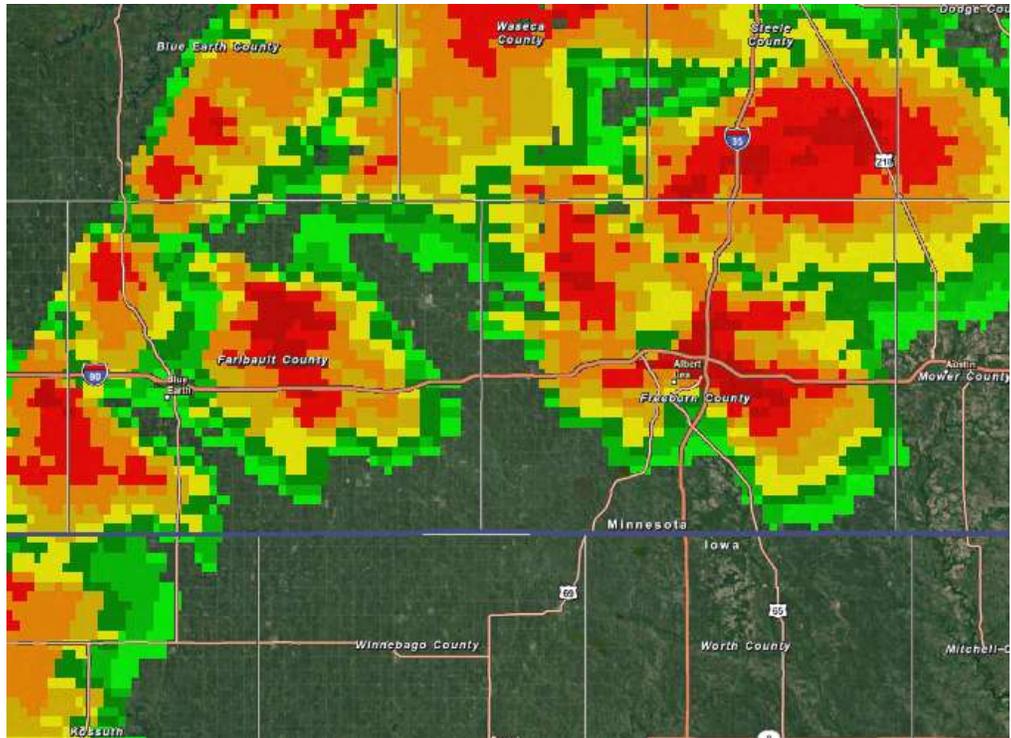
*MPX radar reflectivity image at 630 PM CDT, June 17, 2010*



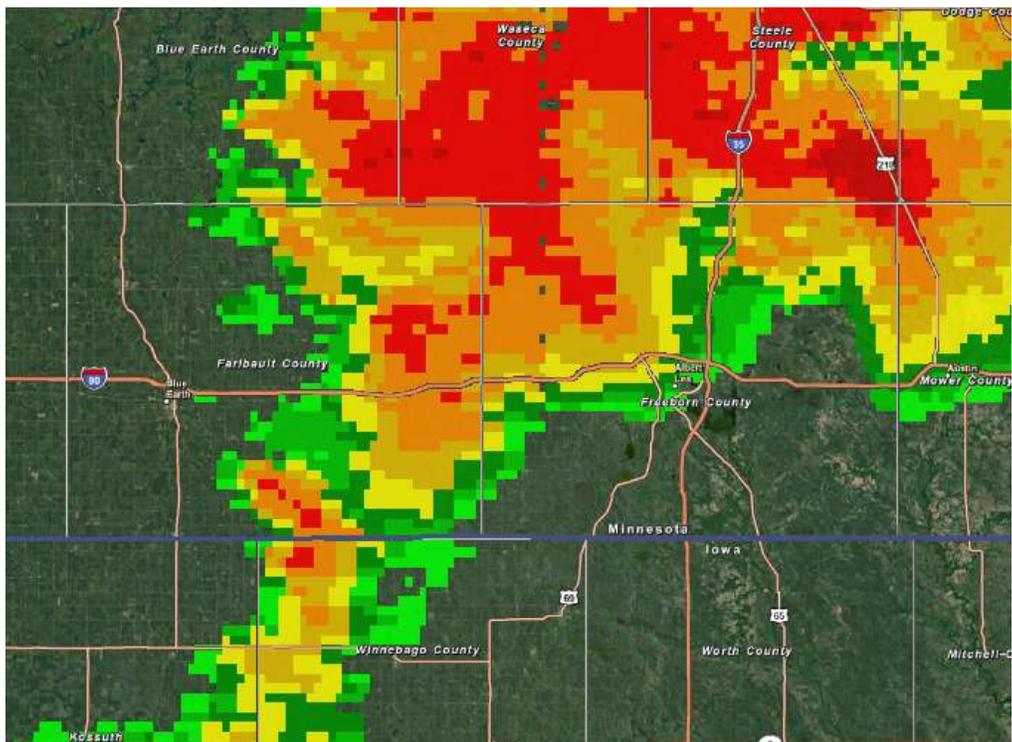
***MPX radar reflectivity image at 700 PM CDT, June 17, 2010***



***MPX radar reflectivity (zoom to southern MN) at 700 PM CDT, June 17, 2010***



***MPX radar reflectivity (zoom to southern MN) at 730 PM CDT, June 17, 2010***



***MPX radar reflectivity (zoom to southern MN) at 800 PM CDT, June 17, 2010***

# Tornado Damage Survey Results

## ***Douglas County: EF1 Tornado Near Leaf Valley***

A storm damage survey team from the National Weather Service office in Grand Forks determined a tornado occurred in northern Douglas County on Thursday June 17th. This tornado began in Douglas County and moved north-northeast into Otter Tail County. The following is only for the Douglas County portion of the tornado track. This information was determined from this survey and verified reports, combined with radar data.

- Event: Tornado.
- Intensity: EF-1 in Douglas County.
- Location: Touchdown was 3 miles north-northeast of Leaf Valley.
- Track: Moved north-northeast for 1.3 miles through the end of the Douglas County and then into Otter Tail County.
- Timing: Touchdown approximately 3:43 PM.
- Damage: Primarily tree damage.

## ***Faribault County: EF0 Tornado Northwest of Elmore***

A storm damage survey team determined an EF-0 tornado occurred in southern Faribault County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser video and photos, combined with radar data.

- Event: Tornado.
- Intensity: EF-0 with winds 65 to 85 mph.
- Reported injuries: None.
- Location: Touchdown was approximately four miles northwest of Elmore, near the intersection of County Roads 2 and 9.
- Track: Approximately 2.6 miles to the north.
- Maximum width: Approximately 75 yards.
- Timing: Touchdown near 5:05 PM and duration for five minutes.
- Damage: Metal shed building blown in with debris from the building up to a quarter mile away. Multiple trees uprooted.

## ***Faribault County: EF0 Tornado Northeast of Elmore***

A storm damage survey team determined an EF-0 tornado occurred in southern Faribault County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser video and photos, and radar data.

- Event: Tornado.
- Maximum Intensity: EF-0 with 80 mph winds.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately 3 miles northeast of Elmore.
- Track: Approximately 1.7 miles to the northeast.
- Maximum Width: Approximately 20 yards.

- Timing: Touchdown near 540 PM CDT and duration for around 4 minutes. Damage: Several dozen trees were broken.
- Other notes: This was the second touchdown of the evening near the Elmore area.

***Faribault County: EF0 Tornado Southeast of Frost***

A comprehensive review of multiple videos and photos by many storm chasers, as well as storm spotter reports, has resulted in determination that a tornado occurred southeast of Frost, in southern Faribault County, on Thursday June 17th. As a result, the following was determined:

- Event: Tornado.
- Maximum Intensity: EF-0.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately 6 miles southeast of Frost.
- Track: Approximately 1 mile to the northeast.
- Maximum Width: Approximately 30 yards.
- Timing: Touchdown near 605 P.M. CDT and duration for around 4 minutes.
- Damage: The tornado moved across open fields, but some minor crop damage was noted.

***Faribault County: EF0 Tornado Southwest of Bricelyn***

A comprehensive review of multiple videos and photos by many storm chasers, as well as storm spotter reports, has resulted in determination that a tornado occurred southwest of Bricelyn, in southern Faribault County, on Thursday June 17th. As a result, the following was determined:

- Event: Tornado.
- Maximum Intensity: EF-0.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately 3.2 miles south-southwest of Bricelyn.
- Track: Approximately 0.4 mile to the northeast.
- Maximum Width: Approximately 30 yards.
- Timing: Touchdown near 610 P.M. CDT and duration for around 1-2 minutes.
- Damage: The tornado moved across open fields, but some minor crop damage was noted.

***Blue Earth County: EF0 Tornado Near Eagle Lake***

Damage southeast of Eagle Lake was surveyed by the National Weather Service. It was determined that an EF-0 tornado touched down one and a half miles north-northwest of St. Clair and traveled north along State Highway 83. It dissipated one and a half miles south of Eagle Lake after being on the ground for three miles. Maximum width was 50 yards. It knocked down or uprooted scattered trees and caused minor damage to a couple of sheds. Some windows were blown out at one house, and a flag pole was bent. Touchdown time was 537 pm, and the tornado dissipated at 542 pm.

### ***McLeod County: EF0 Tornado Near Winsted***

A storm damage survey team assessed the severe storms in McLeod County Minnesota on Thursday June 17th. The following information was determined from this survey, verified reports, and storm chaser video and photos.

A tornado touchdown was confirmed in northeastern McLeod County, in a rural area just to the west of Winsted. The tornado touched down at approximately 523 PM CDT, at a location near Cable Ave and 245th St. The tornado resulted in some isolated damage to trees and limbs initially, before it crossed into a farm field and did some minor damage to crops. The tornado lifted off the ground at approximately 526 PM CDT just to the south of Common St, which is the border between McLeod and Wright County. The estimated path length of this tornado is three-quarters of a mile, and the maximum estimated width is 25 yards. The estimated maximum wind speeds for this tornado are 70 to 75 miles per hour, which classifies this as an EF-0 tornado.

### ***Wright County: EF1 Tornado North of Buffalo***

A storm damage survey team assessed the severe storms in Wright County Minnesota on Thursday June 17th. The following information was determined from this survey, verified reports, and storm chaser video and photos.

A tornado was confirmed to the north of Buffalo in Wright County. The tornado touched down around 600 PM CDT about 2 miles north of Buffalo, near 35th St and Braddock Ave. Isolated tree damage was noted near the initial touchdown location, but the damage became more concentrated and more intense as the storm approached Constance Lake. Low end EF-1 tornado damage was noted, as the trunks of several trees were snapped at locations on both sides of the lake. An intermittent damage path continued further north, with damage to several tree limbs and a small lean-to. The tornado lifted around 608 PM CDT near the intersection of 85th St NE and Cahill Ave, or about 3.5 miles southwest of Monticello. The estimated path length of this tornado is 5 miles, and the maximum estimated width is about 50 yards. The estimated maximum wind speeds with this storm were 90 to 100 mph.

### ***Sherburne County: First EF0 Tornado Northeast of Clear Lake***

A brief tornado was confirmed northeast of Clear Lake.

- Maximum Intensity: EF-0 with winds approximately 65 to 70 mph.
- Fatalities: None.
- Injuries: None.
- Location and track: The tornado touched down 3.2 miles northeast of Clear Lake, moved north for 0.1 mile, then dissipated.
- Maximum width: 10 yards.
- Timing: Approximately 554 pm to 555 pm.
- Damage: None. The tornado touched down in an open field just northwest of the intersection of County Roads 6 and 16.
- Other Notes: This tornado was the first of two tornadoes that touched down 3.2 miles northeast of Clear Lake. It was recorded on video by a storm chaser, whose assistance is very much appreciated.

### ***Sherburne County: Second EF0 Tornado Northeast of Clear Lake***

A longer duration tornado was confirmed northeast of Clear Lake.

- Event: Tornado
- Maximum Intensity: EF-0 with winds approximately 70 to 75 mph.
- Fatalities: None.
- Injuries: None.
- Location and track: It touched down 3.2 miles northeast of Clear Lake, just southeast of the intersection of County Roads 6 and 16, moved slightly west of due north for 2.5 miles, then dissipated.
- Maximum width: 30 yards.
- Timing: Approximately 556 pm to 600 pm.
- Damage: A few dozen trees were broken or snapped.
- Other notes: This tornado was the second of two tornadoes that touched down 3.2 miles northeast of Clear Lake. It was recorded on video by a storm chaser, whose assistance is very much appreciated.

### ***Faribault County: EF2 Tornado Southwest of Kiester***

A storm damage survey team has determined an EF-2 tornado occurred in southeastern Faribault County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser video and photos, combined with radar data.

- Event: Tornado.
- Maximum Intensity: EF-2 with winds around 120 mph.
- Fatalities: Zero.
- Location: Touchdown was approximately 1.4 miles south-southwest of Kiester.
- Track: Approximately 1.5 miles to the north. It then wrapped around another tornado (that developed on the west edge of Kiester) and dissipated.
- Maximum Width: Approximately 50 yards.
- Timing: Touchdown near 613 P.M. CDT and duration for around 5 minutes.

The tornado began south-southwest of Kiester near the intersection of 20<sup>th</sup> Street and 570th Avenue. It began approximately 750 feet south of 20th Street and grew to approximately 50 feet in width as it crossed 20th Street. The tornado continued to the north northeast and grew in width to approximately 50 yards. It did EF-2 damage to a couple farmsteads including tree damage and destruction of several grain bins. The tornado then continued along the west side of the town of Kiester as it weakened to EF-1 intensity and was absorbed by another tornado at about 618 p.m.

### ***Faribault County: EF2 Tornado Northwest of Kiester***

A storm damage survey team has determined an EF-2 tornado occurred in southeastern Faribault County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser video and photos, combined with radar data.

- Event: Tornado.
- Maximum Intensity: EF-2 with winds around 120 mph.
- Fatalities: Zero.

- Location: Touchdown was approximately 1 mile west of Kiester.
- Track: Approximately 2.5 miles to the north, then to the north-northeast.
- Maximum Width: Approximately 50 yards.
- Timing: Touchdown near 6:16 P.M. CDT and duration for around 9 minutes.

This tornado began on the west side of Kiester, and shortly thereafter, another tornado wrapped around this tornado and dissipated. This tornado continued up the west and northwest sides of Kiester. There was continual tree damage in town with branches 25 feet and higher being broken off. The tornado continued to the north of Kiester as a multi-vortex tornado and did EF-2 damage to a grove of trees. It then moved across a cemetery approximately one mile north of Kiester, where several trees were felled and gravestones were overturned. The tornado turned to the north-northeast, crossed Highway 22, and dissipated shortly thereafter around 6:25 P.M. CDT.

***Faribault County: EF0 Tornado East of Kiester***

A comprehensive review of multiple videos and photos by many storm chasers, as well as storm spotter reports, has resulted in determination that a tornado occurred east of Kiester, in southern Faribault County, on Thursday June 17th. As a result, the following was determined:

- Event: Tornado.
- Maximum Intensity: EF-0.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately 3 miles east of Kiester.
- Track: Approximately 1/4 mile to the northeast.
- Maximum Width: Approximately 50 yards.
- Timing: Touchdown near 6:23 P.M. CDT and duration for 2 minutes.
- Damage: The tornado moved across open areas, but some minor crop damage was noted.

***Faribault County: EF1 Tornado Northeast of Kiester***

A comprehensive review of multiple videos and photos by many storm chasers, as well as a damage survey and storm spotter reports, has resulted in determination that a tornado occurred northeast of Kiester, in southern Faribault County, on Thursday June 17th. It crossed in Freeborn County. As a result, the following was determined:

- Event: Tornado.
- Maximum Intensity: EF-1.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately 4 miles northeast of Kiester.
- Track: Approximately 0.6 mile to the northeast.
- Maximum Width: Approximately 50 yards.
- Timing: Touchdown near 6:28 P.M. CDT and duration for around 4 minutes.
- Damage: The tornado snapped numerous power poles approximately five feet off the ground along Freeborn County Road 11. Several dozen trees also had large branches snapped off.

### ***Freeborn County: EF4 Tornado Near Conger, Armstrong and Manchester***

A storm damage survey team has determined an EF-4 tornado occurred in western Freeborn County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser video and photos, spotter information, combined with radar data.

- Event: Tornado.
- Maximum Intensity: EF-4 with winds of 175 mph.
- Fatalities: One.
- Track: First touched down 1 mile west-northwest of Mansfield and moved northeast to approximately 3.5 miles west of Conger, where the tornado began to move more to the east-northeast. West of Armstrong, the tornado then tracked nearly due north to just west of Manchester, where it began to move to the north-northwest before dissipating 1.5 miles west of Hartland. Accounting for changes in direction, total path length was approximately 20 miles, although the start and end points are 17 miles apart as the crow flies.
- Maximum Width: One mile.
- Timing: Approximately 6:33 PM to 7:15 PM CDT.

At approximately 6:33 PM CDT, the tornado developed just north of 150th Street and about 1/3 mile east of the Faribault/Freeborn County line. The tornado moved to the northeast and grew in width to approximately 250 yards. Near 80th Street and County Road 2, the tornado began producing EF-2 damage. Crop damage became very evident with corn having several leaves stripped. A homestead near this location was likely in the outer circulation of the tornado and sustained some roof and siding damage. A nearby barn was destroyed to its brick foundation. A car was also flipped over lengthwise at this location. Some evidence of tree debarking was noted.

The tornado continued to the northeast and caused extensive crop damage approximately 500 yards in width. Near County Roads 17 and 63, the tornado grew to EF-3 intensity, and impacted a farmstead and caused the complete destruction of three swine barns and the loss of 12 head of swine. Two empty grain bins were completely blown away at this location. The house at this location had some roof damage but appeared to be northwest of the main tornado path. Approximately 100 feet northeast of the house, a 150 foot tripod style wind turbine tower was twisted and toppled. This location also marked the beginning of crops being completely raked, with only stalks of corn left and soybean fields being almost unrecognizable.

After passing through this farmstead, the tornado took a more east-northeast path across County Road 63, and maintained EF-3 strength intensity. After passing County Road 63, another farmstead was hit. At this location, two empty harvester silos were toppled.

The tornado continued to the northeast across County Road 4 where continued raking of the fields was noted with significant deposition of debris along the tornado path. Numerous trees were toppled at County Road 89 where it turns to the north. The tornado continued to the north-northeast, grew to 1000 yards and strengthened to EF-4 Intensity, and impacted a farmstead near the intersection of a local road and County Road 12 two miles north of Conger, around 650 PM CDT. The house at this location was completely destroyed as was the barn and several other buildings. Extensive tree damage was noted with nearly all branches being removed from the trunks.

Debarking of trees was widespread at this location. From this location, a car was tumbled a distance of 3200 feet, and came to rest in a field east of County Road 12.

The tornado continued to the northeast across County Road 69 and County Road 46, where it weakened slightly to EF-3 intensity. As it crossed County Road 46, a house was rotated off the foundation. The tornado was approximately 700 yards wide at this point. To the north-northeast, a swine barn was destroyed with sheet metal being carried off to Interstate 90. At this same time, a satellite tornado developed and caused damage in the town of Armstrong.

The main tornado continued to the north northeast and was 500 yards in width. The tornado crossed County Road 74 and caused EF-2 damage to three farmsteads. One farmstead with a manufactured home was hit, and resulted in one fatality and one severe injury.

The tornado crossed Interstate 90 just west of County Road 14 as it grew to one third of a mile in width and re-strengthened to EF-3 intensity. Several farmsteads saw significant damage between Sugar Lake and County Road 14 with a house and two barns completely destroyed. From this point the tornado continued to the north, and grew to one mile in width. Around 7 PM CDT, a house and barn were destroyed approximately one mile west of Manchester on County Road 25, where extensive tree and structural damage was also noted at several properties in the area. Additionally, west of this tornadic damage, a separate area of tree and structural damage was caused by strong thunderstorm winds associated with what is known as rear flank downdraft.

About one mile north, the tornado weakened slightly to EF-2 intensity, where it damaged three full grain bins near County Road 29. The tornado was approximately 1300 yards at this point.

Further north, at County Road 95, the tornado continued to weaken, although a farmstead still received EF-1 damage to trees and structures.

Finally, the tornado continued north-northwest and began to narrow and weaken. The tornado dissipated to the west of Hartland around 7:15 CDT.

### ***Freeborn County: EF1 Tornado Near Armstrong***

A storm damage survey team has determined an EF-1 tornado occurred in central Freeborn County on Thursday June 17th. The following was determined from this survey and verified reports, storm chaser and video, combined with radar data.

- Event: Tornado.
- Maximum Intensity: EF-1 with winds around 90 mph.
- Fatalities: Zero.
- Location: Touchdown was in the town of Armstrong.
- Track: Approximately one mile to the northeast.
- Maximum Width: Approximately 100 yards.
- Timing: Touchdown near 655 P.M. CDT and duration for around 5 minutes.

The tornado touched down just southwest of Armstrong around 650 P.M. CDT, and dissipated just northeast of Armstrong. It caused EF-1 damage to trees, several grain bins and structures.

This tornado was a smaller tornado that occurred in conjunction with the larger EF-4 tornado near Conger, and is otherwise known as a satellite tornado.

### ***Freeborn/Steele County: EF3 Tornado Near Clarks Grove to Ellendale***

A storm damage survey team has determined an EF-3 tornado occurred in north central Freeborn County and southwest Steele County on Thursday June 17th. The following was determined from this survey, storm chaser photos and video, combined with radar data.

- Event: Tornado.
- Maximum Intensity: EF-3 with winds 145 to 160 mph.
- Fatalities: Zero.
- Reported Injuries: None.
- Location: Touchdown was approximately two miles northwest of Albert Lea Airport, near the intersection of Freeborn County Roads 14 and 20. It tracked to the north-northeast, then moved into Steele County, where it began moving to the north-northwest, thereby missing the city of Ellendale. A few miles later, it began moving toward the northwest, and shortly before ending, it actually turned some more and moved toward the west-northwest until it finally dissipated.
- Track: Accounting for the change in direction, the tornado had an actual path length of 18.8 miles, although the distance from start to end point is 16.8 miles as the crow flies.
- Maximum Width: Approximately three-quarters of a mile.
- Timing: Touchdown at 705 PM and dissipation was at 744 PM CDT.

Multiple farmsteads experienced significant structural and tree damage, including one house completely destroyed and several others heavily damaged, many outbuildings destroyed, dozens of trees uprooted and snapped with some debarked. Much of the first six miles of this tornado path was EF-0 before it intensified rapidly.

### ***Freeborn/Steele County: EF1 Tornado Near Clarks Grove to Geneva***

A storm damage survey team has determined an EF-1 tornado occurred in north central Freeborn County and south central Steele County on Thursday June 17th. The following was determined from this survey, multiple storm chaser photos and videos, combined with radar data.

- Event: Tornado
- Maximum intensity: EF-1 with winds approximately 90 to 100 mph.
- Fatalities: Zero.
- Reported injuries: Zero.
- Location: This tornado touched down near the intersection of Interstate 35 and Freeborn County Road 31, on the east side of Clark's Grove. It exited Freeborn County just north of Geneva, where it continued into Steele County, near County Road 45 and 168th Street SW. It moved north-northeast for most of the time it existed, but during its last mile, it turned and began moving to the north-northwest, dissipating while on its north-northwest track.
- Track: Accounting for the change in direction, the tornado had an actual path length of 12.9 miles, although the distance from start to end point is 12.3 miles as the crow flies.
- Maximum Width: Approximately 600 yards.
- Timing: Touchdown was at 715 pm, and dissipation was at 748 pm.

Multiple outbuildings were destroyed, the roof was taken off a barn, and numerous large trees were broken or toppled.

### ***Freeborn County: EF1 Tornado From Northeast of Albert Lea through Lerdal***

A storm damage survey team has determined an EF-1 tornado occurred in northeast Freeborn County on Thursday June 17th. The following was determined from this survey, multiple storm chaser photos and videos, combined with radar data.

- Event: Tornado
- Maximum intensity: EF-1 with winds approximately 90 to 100 mph.
- Fatalities: Zero.
- Reported injuries: Zero.
- Location: This tornado touched down just west of the intersection of 790<sup>th</sup> Avenue and 235<sup>th</sup> Street, where a barn was destroyed. It continued moving northeast and went through the tiny community of Lerdal, where more trees were downed. The tornado dissipated west of Hollandale, but not before it rotated around a new tornado that developed just west of Hollandale.
- Track: approximately 5 miles.
- Maximum Width: Approximately 220 yards.
- Timing: Touchdown was at 742 pm, and dissipation was at 748 pm.
- Damage: This tornado destroyed a barn, broke dozens of trees, and damaged a few sheds. As it began to dissipate, it became very narrow and then rotated halfway around a new tornado west of Hollandale. Video filmed by storm chasers.

### ***Freeborn County: EF3 Tornado Near Hollandale***

A storm damage survey team has determined an EF-3 tornado occurred in northeast Freeborn County on Thursday June 17th. The following was determined from this survey, multiple storm chaser photos and videos, combined with radar data.

- Event: Tornado
- Maximum intensity: EF-3 with winds approximately 150 to 160 mph.
- Fatalities: Zero.
- Reported injuries: Zero.
- Location: This tornado touched down just west of Hollandale, southeast of the intersection of Highway 251 and County Road 26. Shortly after this Hollandale tornado developed, the Lerdal tornado rotated around it and dissipated. The Hollandale tornado then moved northeast, dissipating just northeast of the intersection of County Roads 30 and 35.
- Track: approximately 5 miles to the northeast.
- Maximum Width: Approximately 600 yards.
- Timing: Touchdown was at 747 pm, and dissipation was at 759 pm.

When this tornado reached Highway 251 west of Hollandale, a roof was taken off a house and other houses sustained some damage. Thereafter, the tornado intensified significantly 1.5 miles northwest of Hollandale. A house was leveled along with grain bins and multiple large outbuildings, and trees were snapped with some sections of bark removed. The tornado continued northeast and hit more houses and outbuildings. Severe damage also occurred two miles north of Hollandale, where a well built house lost its roof and some outer walls and all

outbuildings were destroyed. More trees were snapped and some trees had small portions of bark removed. The tornado hit its last house five miles east of Geneva, where it broke many trees and badly damaged outbuildings.

Extremely strong rear flank downdraft winds accompanied the end of this tornado. Winds were estimated to be 70 to 80 mph, with numerous large trees snapped and pushed over. Some outbuildings were badly damaged. These winds were out of the northwest and west, and hit an area that includes five miles east-northeast of Geneva to four miles of east Geneva, including about 3/4 mile west of the tornado dissipation point.

Also, when the Hollandale tornado dissipated, a new multiple vortex tornado was developing about 1/2 mile away, southeast of the intersection of County Roads 30 and 35.

### ***Freeborn County: EF1 Tornado West of Newry***

A storm damage survey team has determined an EF-1 tornado occurred in extreme northeastern Freeborn County on Thursday June 17th. The following was determined from this survey, multiple storm chaser photos and videos, combined with radar data.

- Event: Tornado
- Maximum intensity: EF-1 with winds approximately 90 to 100 mph.
- Fatalities: Zero.
- Reported injuries: Zero.
- Location: This tornado touched down about two miles west of Newry, just southeast of the intersection of County Roads 30 and 35. The tornado then moved northeast, dissipating just before reaching the Freeborn/Steele County line.
- Track: approximately 2.2 miles to the northeast.
- Maximum Width: Approximately 220 yards.
- Timing: Touchdown was at 803 pm, and dissipation was at 807 pm.
- Damage: This tornado hit three farmsteads just east of the intersection of county roads 30 and 35. Numerous trees were snapped and a shed and other outbuildings were destroyed. For the latter portion of its track, the tornado moved through fields and groves, with more crop damage and broken trees.

### ***Steele County: EF3 Tornado West of Blooming Prairie***

A storm damage survey determined that an EF-3 tornado occurred in southeastern Steele County, west and west-northwest of Blooming Prairie, on Thursday, June 17th. The following was determined from this survey, law enforcement and home video, combined with spotter reports and radar data.

- Maximum intensity: EF-3 with winds approximately 150 to 160 mph.
- Fatalities: Zero.
- Injuries: One.
- Location: Touchdown was in southeastern Steele County, about three miles west-southwest of Blooming Prairie. The tornado moved northeast, dissipating three miles north-northwest of Blooming Prairie.
- Track: Approximately 4.3 miles to the northeast.
- Maximum Width: Approximately 440 yards.
- Timing: Touchdown near 810 pm, with dissipation at around 819 pm.

Initially, occasional trees were broken. Damage intensified somewhat when it hit a farm on State Highway 30 just west of Blooming Prairie. The tornado continued moving northeast, decimating crops. Some bean fields were scoured in spots. It intensified significantly and produced EF-3 damage 2.5 miles northwest of Blooming Prairie, where a house was leveled, trees were snapped, and large portions of bark were removed. A pickup truck was lofted about 50 feet into the basement of the house. Several other houses sustained minor damage. The tornado dissipated just west of Highway 218 and 123rd Street. Video recorded by law enforcement and chasers.

### ***Steele County/Dodge County: EF2 Tornado Northwest of Blooming Prairie***

A storm damage survey determined that an EF-2 tornado occurred in southeastern Steele County, northwest of Blooming Prairie, on Thursday, June 17th. It moved into Dodge County. The following was determined from this survey, storm chaser photos and video, combined with spotter reports and radar data.

- Maximum intensity: EF-2 with winds approximately 120 to 130 mph.
- Fatalities: Zero.
- Injuries: One.
- Location: Touchdown was in southeastern Steele County, about two miles north-northwest of Blooming Prairie. The tornado moved east-northeast into Dodge County, exiting Steele County about 1/4 mile south of Steele County Road 26.
- Track: Approximately 2.5 miles to the east-northeast across Steele County before it entered Dodge County.
- Maximum Width: Approximately 100 yards.
- Timing: Touchdown near 821 pm. It entered Dodge County at about 826 pm.

A manufactured home was obliterated by the EF-2. A woman inside the home was blown about 20 feet, but was found under debris, rescued by law enforcement, and survived. The tornado continued moving east-northeast, and several outbuildings were destroyed, along with many broken trees. The tornado continued into Dodge County.

This tornado crossed the path of the EF-3 that had moved just west and northwest of Blooming Prairie a few minutes earlier.

### ***Steele County/Dodge County: EF0 Tornado North of Blooming Prairie***

A storm damage survey determined that an EF-0 tornado occurred in southeastern Steele County, north of Blooming Prairie, on Thursday, June 17th. It quickly moved into Dodge County. The following was determined from this survey, storm chaser photos and video, combined with spotter reports and radar data.

- Maximum intensity: EF-0 with winds approximately 70 to 80 mph.  
Fatalities: Zero.
- Injuries: Zero.
- Location: Touchdown was in southeastern Steele County, about two miles north of Blooming Prairie. The tornado moved north-northeast into Dodge County, exiting Steele County about 3/4 mile south of Steele County Road 26.

- Track: Approximately 0.6 miles to the north-northeast across Steele County before it entered Dodge County.
- Maximum Width: Approximately 50 yards.
- Timing: Touchdown near 822 pm. It entered Dodge County at about 823 pm.

The tornado caused minor damage to outbuildings and broke several dozen trees. It continued into Dodge County.

### ***Chisago County: EF0 Tornado Near Rush City***

A storm damage survey team from the National Weather Service office in Duluth determined an EF-0 tornado occurred in northern Chisago County on Thursday evening June 17th. This tornado began in Chisago County and moved northeast into Pine County, where it intensified to EF-2. The tornado eventually moved into Burnett County Wisconsin. The following is only for the Chisago County portion of the tornado track. This information was determined from this survey and verified reports, combined with radar data.

- Event: Tornado.
- Intensity: EF-0 with winds 65 to 80 mph.
- Location: Touchdown was approximately five miles east-northeast of Rush City.
- Track: The tornado moved northeast for 1/3 mile through the end of Chisago County and then into Pine and Burnett Counties.
- Timing: Touchdown approximately 844 PM.
- Damage: Primarily tree damage, including uprooted trees and broken branches.