

# Central Iowa Short-Lived

## Tornado Event

April 16, 2024

Photo Credit - Webster County Emergency Management

### Event Summary

A strong Spring low pressure brought multiple rounds of strong to severe thunderstorms to portions of central Iowa on Tuesday, April 16th, 2024. At least 8 short-lived tornadoes touched down, some causing damage in portions of central Iowa from late morning through the afternoon. A few of the severe thunderstorms also produced hail of 1 to 2 inches in diameter and wind gusts of 50-60 mph. Environmental winds behind the dry line were quite strong as well, occasionally gusting in excess of 50-55 mph.



Photo Credit - Calhoun County Emergency Management



All information is PRELIMINARY. Page last updated: April 19th at 3 PM

# Tornado 1 - Carbon



NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION



## Preliminary Damage Survey Results

### Carbon Tornado - Adams County

|                 |                    |
|-----------------|--------------------|
| Date            | April 16, 2024     |
| Time (Local)    | 9:31 - 9:33 AM CDT |
| EF Rating       | EF-0               |
| Est. Peak Winds | 80 MPH             |
| Path Length     | 1.75 Miles         |
| Max Width       | ~30 Yards          |
| Injuries/Deaths | None               |

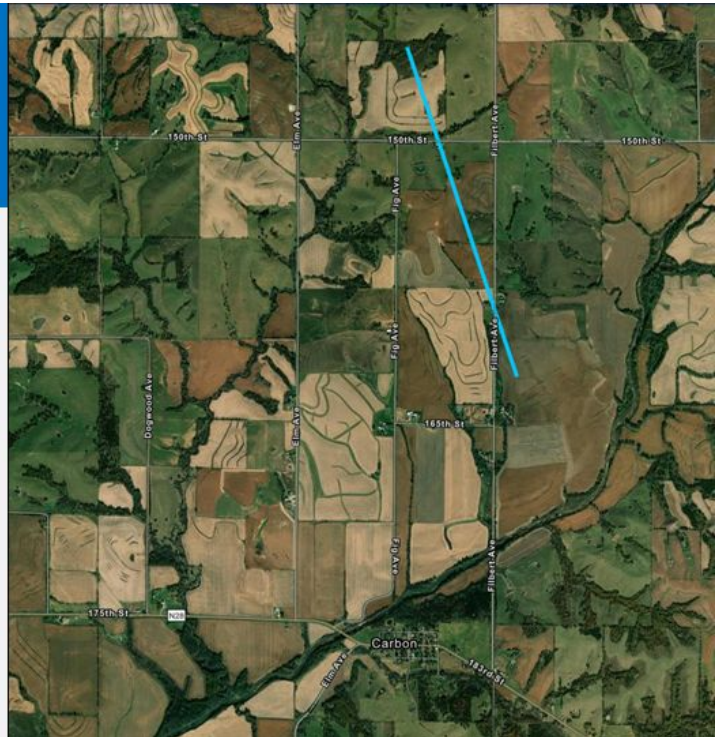


Photo Credit - Adams County Emergency Management



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# Tornado 2 - Anita



NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION



## Preliminary Damage Survey Results

### Anita Tornado - Cass County

|                 |                     |
|-----------------|---------------------|
| Date            | April 16, 2024      |
| Time (Local)    | 9:58 - 10:00 AM CDT |
| EF Rating       | EF-1                |
| Est. Peak Winds | 90 MPH              |
| Path Length     | 0.64 Miles          |
| Max Width       | ~30 Yards           |
| Injuries/Deaths | None                |



Photo Credit - Cass County Emergency Management



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# Tornado 3 - Minburn

 NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION

## Preliminary Damage Survey Results

### Minburn Tornado

|                        |                     |
|------------------------|---------------------|
| <b>Date</b>            | April 16, 2024      |
| <b>Time (Local)</b>    | 1105am - 1115am CDT |
| <b>EF Rating</b>       | EF-0                |
| <b>Est. Peak Winds</b> | 75-85 mph           |
| <b>Path Length</b>     | 6.8 miles           |
| <b>Max Width</b>       | ~50 yards           |
| <b>Injuries/Deaths</b> | None                |

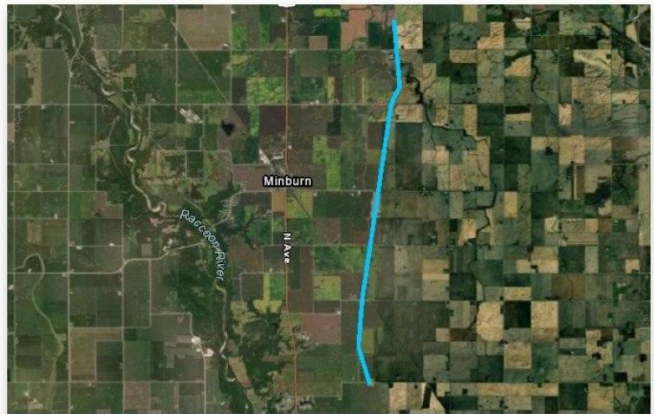


Image courtesy of Minburn Fire Department



Photo Credit - Dallas County Emergency Management



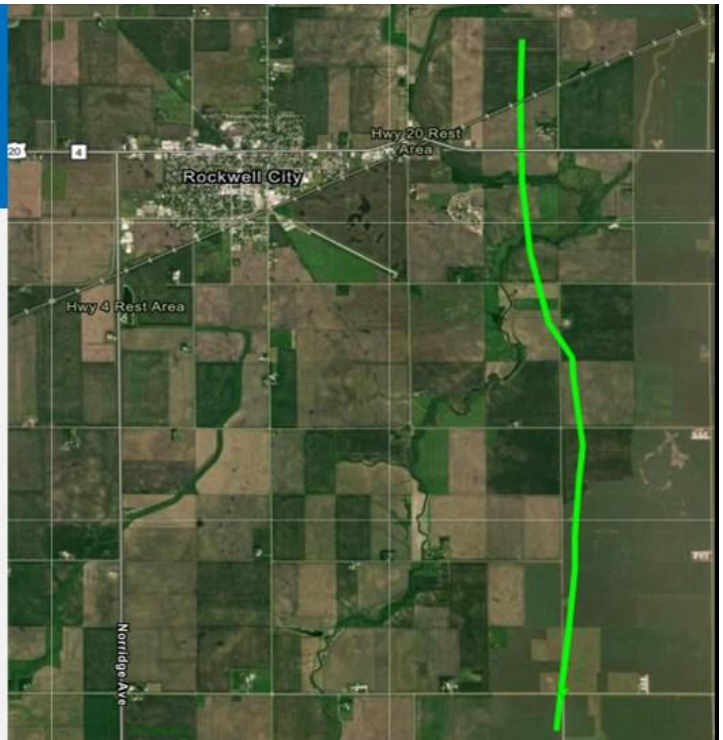
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# Tornado 4 - Rockwell City

 NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION

 **Preliminary**  
Damage Survey Results

| Rockwell City Tornado- Calhoun County |                    |
|---------------------------------------|--------------------|
| Date                                  | April 16, 2024     |
| Time (Local)                          | 2:26 – 2:38 PM CDT |
| EF Rating                             | EF1                |
| Est. Peak Winds                       | 100 MPH            |
| Path Length                           | 6.12 Miles         |
| Max Width                             | ~75 Yards          |
| Injuries/Deaths                       | None               |

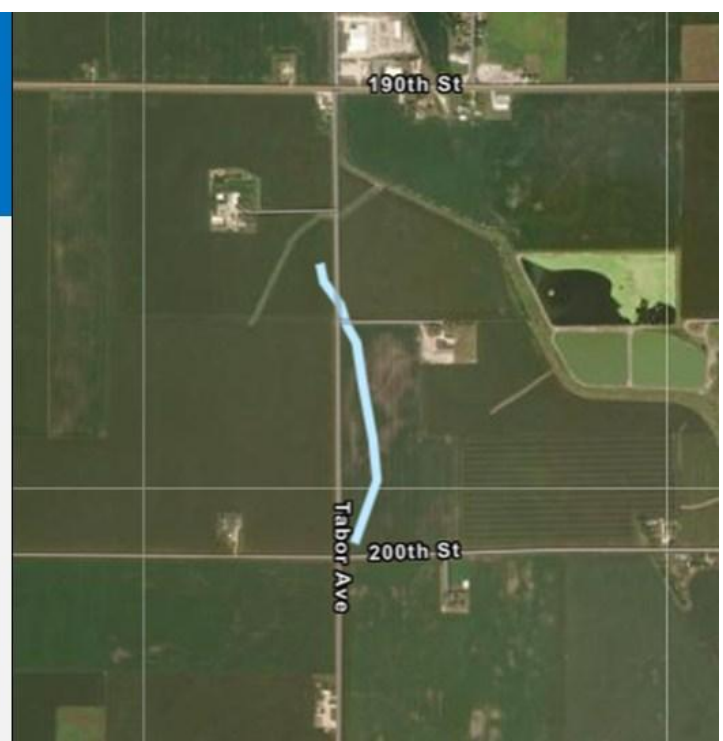


# Tornado 5 - Manson

 NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION


 **Preliminary**  
Damage Survey Results


| Manson Tornado - Calhoun County |                    |
|---------------------------------|--------------------|
| Date                            | April 16, 2024     |
| Time (Local)                    | 2:57 – 2:59 PM CDT |
| EF Rating                       | EFU                |
| Est. Peak Winds                 | Unknown            |
| Path Length                     | 0.63 Miles         |
| Max Width                       | ~30 Yards          |
| Injuries/Deaths                 | None               |



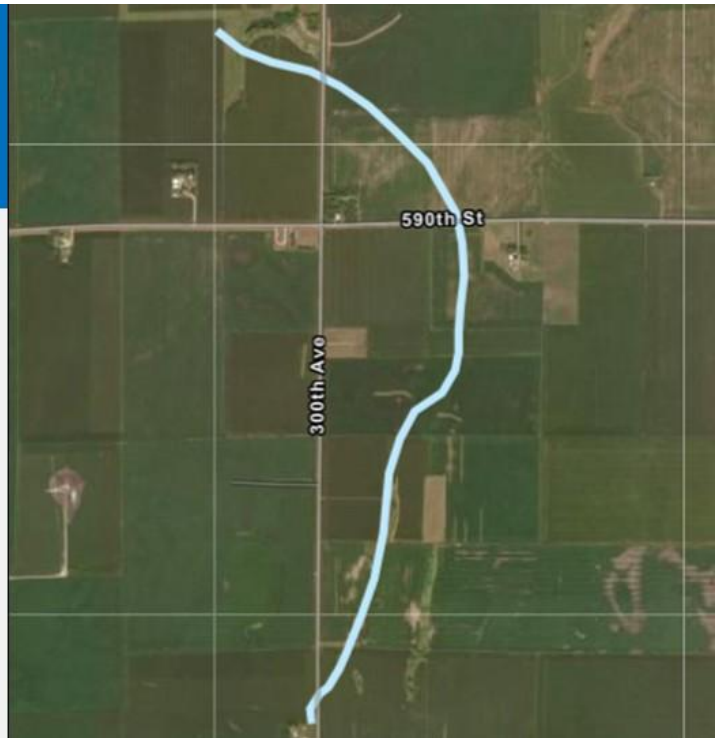
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# Tornado 6 - Palmer


 NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION


 **Preliminary**  
Damage Survey Results

| Palmer Tornado - Pocahontas County |                    |
|------------------------------------|--------------------|
| Date                               | April 16, 2024     |
| Time (Local)                       | 3:11 - 3:16 PM CDT |
| EF Rating                          | EFU                |
| Est. Peak Winds                    | Unknown            |
| Path Length                        | 2.05 Miles         |
| Max Width                          | ~50 Yards          |
| Injuries/Deaths                    | None               |

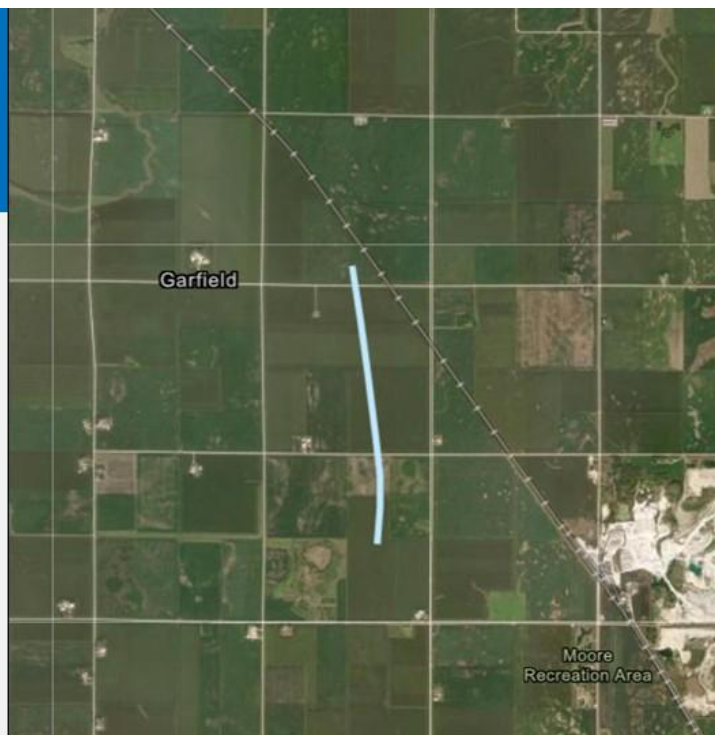


# Tornado 7 - Rolfe #1

 NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION

 **Preliminary**  
Damage Survey Results

| Rolfe Tornado #1 - Pocahontas County |                    |
|--------------------------------------|--------------------|
| Date                                 | April 16, 2024     |
| Time (Local)                         | 3:34 - 3:38 PM CDT |
| EF Rating                            | EFU                |
| Est. Peak Winds                      | Unknown            |
| Path Length                          | 1.66 Miles         |
| Max Width                            | ~40 Yards          |
| Injuries/Deaths                      | None               |



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# Tornado 8 - Rolfe #2



NATIONAL WEATHER SERVICE  
OCEANIC AND ATMOSPHERIC ADMINISTRATION



## Preliminary Damage Survey Results

### Rolfe Tornado #2 - Pocahontas County

|                 |                    |
|-----------------|--------------------|
| Date            | April 16, 2024     |
| Time (Local)    | 3:42 - 3:45 PM CDT |
| EF Rating       | EF0                |
| Est. Peak Winds | 70 MPH             |
| Path Length     | 0.64 Miles         |
| Max Width       | ~40 Yards          |
| Injuries/Deaths | None               |

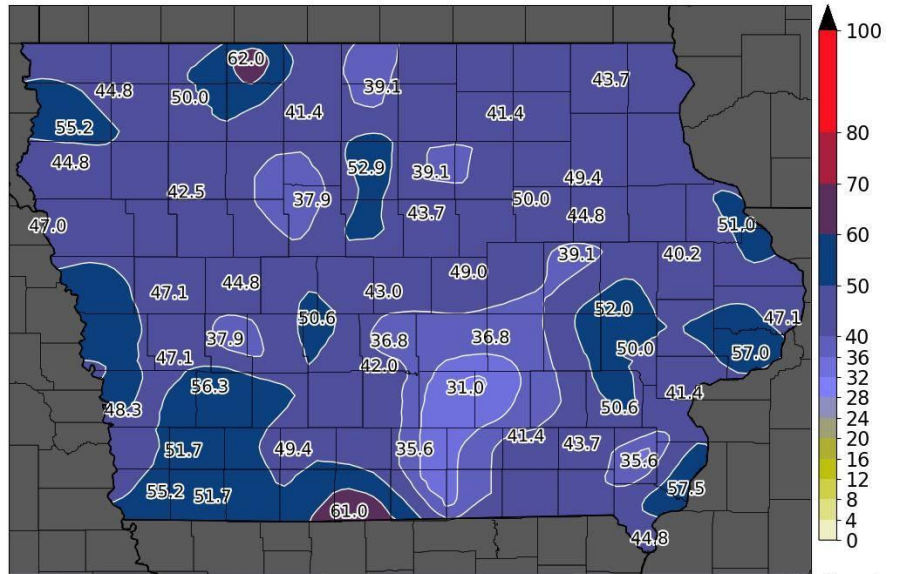


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# Strong Wind Gusts in Central Iowa



Peak Wind Gust [MPH] for Iowa on 2024-04-16



Generated at 16 Apr 2024 11:51 PM CDT in 1.36s

data units :: mph  
IEM Autoplot App #206

Here is a graphical map of all the wind gusts throughout the state of Iowa. Most of the state measured winds in excess of 40 mph due to gradient winds (low pressure). Wind gusts due to thunderstorms and a late afternoon increase in mixing winds resulted in winds in excess of 50 to 60 mph. (Graphic courtesy of Iowa Environmental Mesonet.)

446  
NOUS43 KDMX 170921  
PNSDMX  
IAZ004>007-015>017-023>028-033>039-044>050-057>062-070>075-081>086-092>097-172121-

Public Information Statement  
National Weather Service Des Moines IA  
421 AM CDT Wed Apr 17 2024

...HIGHEST WIND GUST REPORTS FOR APRIL 16 2024...

| Location                     | Speed  | Time/Date     | Lat/Lon       |
|------------------------------|--------|---------------|---------------|
| Estherville Airport          | 62 MPH | 0338 PM 04/16 | 43.40N/94.75W |
| Lamoni Airport               | 61 MPH | 0325 PM 04/16 | 40.63N/93.90W |
| Atlantic Airport             | 56 MPH | 0435 PM 04/16 | 41.41N/95.05W |
| Adair                        | 55 MPH | 0140 PM 04/16 | 41.50N/94.73W |
| Clarion Airport              | 53 MPH | 1235 PM 04/16 | 42.75N/93.77W |
| 3.4 SW Sheffield (UPR)       | 53 MPH | 1139 AM 04/16 | 42.85N/93.23W |
| Webster City Airport         | 52 MPH | 0615 PM 04/16 | 42.42N/93.87W |
| Bedford                      | 52 MPH | 0115 PM 04/16 | 40.68N/94.78W |
| Jefferson                    | 52 MPH | 0235 PM 04/16 | 42.05N/94.38W |
| Perry Airport                | 51 MPH | 0535 PM 04/16 | 41.83N/94.17W |
| Waterloo Airport             | 49 MPH | 0207 PM 04/16 | 42.55N/92.40W |
| Creston Airport              | 49 MPH | 0335 PM 04/16 | 41.02N/94.37W |
| Creston                      | 49 MPH | 0155 PM 04/16 | 41.05N/94.31W |
| Colfax                       | 49 MPH | 0715 PM 04/16 | 41.69N/93.26W |
| Osceola                      | 49 MPH | 0405 PM 04/16 | 41.03N/93.79W |
| Early                        | 48 MPH | 0435 PM 04/16 | 42.47N/95.15W |
| Mason City Airport           | 48 MPH | 0827 AM 04/16 | 43.15N/93.33W |
| Marshalltown Airport         | 48 MPH | 1222 PM 04/16 | 42.12N/92.92W |
| Denison Airport              | 47 MPH | 0135 PM 04/16 | 41.97N/95.37W |
| Boone Airport                | 46 MPH | 0555 PM 04/16 | 42.03N/93.83W |
| Carroll Airport              | 45 MPH | 0215 PM 04/16 | 41.53N/94.77W |
| Osceola Airport              | 45 MPH | 0455 PM 04/16 | 41.05N/93.68W |
| Ankeny                       | 45 MPH | 1110 AM 04/16 | 41.76N/93.57W |
| Ames                         | 45 MPH | 1110 AM 04/16 | 42.03N/93.57W |
| Carroll                      | 45 MPH | 0325 PM 04/16 | 42.08N/94.90W |
| 2 SSE Ames                   | 44 MPH | 0506 PM 04/16 | 41.99N/93.62W |
| Iowa Falls Airport           | 44 MPH | 1135 AM 04/16 | 42.47N/93.27W |
| Centerville                  | 44 MPH | 0940 PM 04/16 | 40.74N/93.00W |
| Leon                         | 44 MPH | 0405 PM 04/16 | 40.74N/93.84W |
| Des Moines International Air | 43 MPH | 0448 PM 04/16 | 41.53N/93.67W |
| Mason City Us18              | 43 MPH | 0845 AM 04/16 | 43.11N/93.12W |
| Rockwell City                | 43 MPH | 0440 PM 04/16 | 42.45N/94.67W |
| Des Moines I-35              | 42 MPH | 0505 PM 04/16 | 41.52N/93.77W |
| Mason City                   | 42 MPH | 0510 AM 04/16 | 43.04N/93.34W |
| Iowa State University        | 41 MPH | 0520 PM 04/16 | 42.01N/93.64W |
| Algona Airport               | 41 MPH | 0835 AM 04/16 | 43.07N/94.27W |
| Ottumwa Regional Airport     | 41 MPH | 0627 PM 04/16 | 41.10N/92.45W |
| Grimes                       | 41 MPH | 0440 PM 04/16 | 41.74N/93.78W |
| Algona                       | 40 MPH | 0840 AM 04/16 | 43.08N/94.40W |

Observations are collected from a variety of sources with varying equipment and exposures. We thank all volunteer weather observers for their dedication. Not all data listed are considered official.

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Highest wind gust reports for April 16th, 2024. Winds in central Iowa exceeded 60 mph at a couple locations including Estherville and Lamoni. Main locations exceeded 45 to 55 mph as well. These reports are a combination of strong gradient (low pressure) related winds as well as thunderstorm wind gusts and late day mixing of the low level jet.



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