

The Riverbend Reader

Message from the Meteorologist-in-Charge

As we start to end the warm season this year, it was a record breaking year across our region. In 2024, WFO Quad Cities has already issued more severe thunderstorm and tornado warnings than in any other year. Our dedicated staff worked long hours to make sure that the people in eastern Iowa, northwest Illinois and far northeast Missouri remained safe.

We also lost some staff members to better opportunities this summer. We lost our Senior Service Hydrologist and one of our forecasters. We hope to replace them next year and bring more people to this wonderful part of the country. Finally, our two student volunteers this summer did a great job. They look to be on a path to hopefully join the agency somewhere when they graduate.

Remember, our office will continue to look at ways to improve communications and products and services to our partners, public and those that we serve. Rest assured, you have a highly talented team dedicated to the mission of protection of life and property and enhancement of the national economy. If you have any comments or questions, feel free to reach out to me at the office at (563) 386-3976.

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The Riverbend Reader is a quarterly publication of the National Weather Service office in the Quad Cities



Lightning illuminates a shelf cloud approaching the office on August 1, 2024

NWS Weather Observer Receives 40 Year Length of Service Award

Tim Gross



Steve Gottschalk receiving his 40 year length of service award from NWS Quad Cities Meteorologist-in-Charge (MIC) Ed Holicky.

Steve Gottschalk of Lowden, IA, surrounded by many family and friends, was presented his NWS 40-yr Length of Service award as an official Cooperative Weather Observer by NWS Davenport IA staff on April 18th, 2024. Steve is a dedicated long withstanding weather observer who started taking his own observations on Dec 1st, 1961. He also became a storm spotter for the Moline Weather Bureau back in July 1970 and has continued as a storm spotter ever since. He provides detailed, timely, and accurate weather reports and has never missed taking an observation. Steve has given weather talks to schools, nursing homes, church groups, scout groups, historical societies, libraries, and home-schooled children. He has also written 3 books entitled, "The Lowden Weather Almanac", "Predicting the Weather Like Grandpa Used To", and "Cedar County Historical Winters." In addition, he has written a weather column for "Our Iowa" magazine for 9 years and the annual weather summary for the Lowden Historical Society book since 2005. He is known as the "weather guy" in town and has seen and reported all types of weather through the years. Thank you, Steve, for all your weather observations and conversations! Your dedication to your community, state, and country is outstanding and second to none!

Learn more about the NWS Cooperative Observer Program [here](#).

NWS Weather Observer Receives 40 Year Length of Service Award

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STATION (Climatological)		Cedar		MONTH	AUG. 20 24		WS FORM B-01 (1/2000)		U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANOIC AND ATMOSPHERIC ADMINISTRATION NATIONAL WEATHER SERVICE		
STATE		IOWA		COUNTY	CEDAR		RIVER	RECORD OF RIVER AND CLIMATOLOGICAL OBSERVATIONS			
TIME (hour) OF OBSERVATION		TEMP		PRECIPITATION		STANDARD TIME IN USE					
TYPE OF RIVER GAGE		ELEVATION OF RIVER (GAUGE ZERO)		FLOOD STAGE		NORMAL FLOOD STAGE					
TEMPERATURE F.		PRECIPITATION		WEATHER (Calendar Day)		RIVER STAGE					
24 HRS. ENDING AT OBSERVATION		24-HR AMOUNTS		A.M.		NOON		P.M.		GAGE READING AT	
DATE	MAX	MIN	AT OBSR	Rain, melted snow, or hail (inches)	Snow (inches)	Sleet (inches)	Ice pellets (inches)	Thunder	Other	Condition	Remarks
1	87	39	36.9	0.07	0.0	0.0	0.0				W(40)T, smoky sky
2	88	43	71	0.00	0.0	0.0	0.0				smoky sky
3	89	47	71	0.00	0.0	0.0	0.0				smoky sky
4	92	48	79	0.00	0.0	0.0	0.0				smoky sky, Heat Index=104
5	94	74	80	0.00	0.0	0.0	0.0				record smoky, Heat Index=104, H.I.=103
6	80	74	47	0.0	0.0	0.0	0.0				N(00), smoky sky
7	81	58	41	0.00	0.0	0.0	0.0				smoky sky
8	79	54	51	0.0	0.0	0.0	0.0				W(00)
9	72	49	52	0.00	0.0	0.0	0.0				N(02) 12:05 am, not a 00
10	73	48	53	0.00	0.0	0.0	0.0				N(02)
11	80	50	40	0.00	0.0	0.0	0.0				
12	82	59	59	0.0	0.0	0.0	0.0				
13	83	57	58	0.00	0.0	0.0	0.0				
14	79	57	49	0.01	0.0	0.0	0.0				SE(00)
15	81	47	48	0.00	0.0	0.0	0.0				SE(00) T
16	88	65	70	0.14	0.0	0.0	0.0				NW(00)
17	85	63	68	0.26	0.0	0.0	0.0				W(00)
18	82	63	66	0.00	0.0	0.0	0.0				smoky sky
19	79	58	60	0.00	0.0	0.0	0.0				smoky sky
20	76	54	54	0.00	0.0	0.0	0.0				smoky sky
21	77	53	53	0.00	0.0	0.0	0.0				smoky sky
22	77	48	54	0.00	0.0	0.0	0.0				smoky sky
23	80	51	60	0.00	0.0	0.0	0.0				
24	90	58	73	0.00	0.0	0.0	0.0				Heat Index=100
25	91	72	79	0.00	0.0	0.0	0.0				Start record min temp, H.I.=105
26	93	73	81	0.00	0.0	0.0	0.0				find record max-min temp, H.I.=117
27	97	70	70	0.27	0.0	0.0	0.0				SE(00), record max temp, H.I.=110
28	87	48	71	0.19	0.0	0.0	0.0				
29	90	49	70	1.15	0.0	0.0	0.0				W(40)T, 115 in 20 mins, H.I.=102
30	79	57	57	1.30	0.0	0.0	0.0				N(00)T
31	84	54	67	0.00	0.0	0.0	0.0				
31	86.0	18.84	50.0	4.45	0.0	0.0	0.0				STN without summer

Example of the data that Steve collects and logs on a daily basis each month. This is from August, 2024.



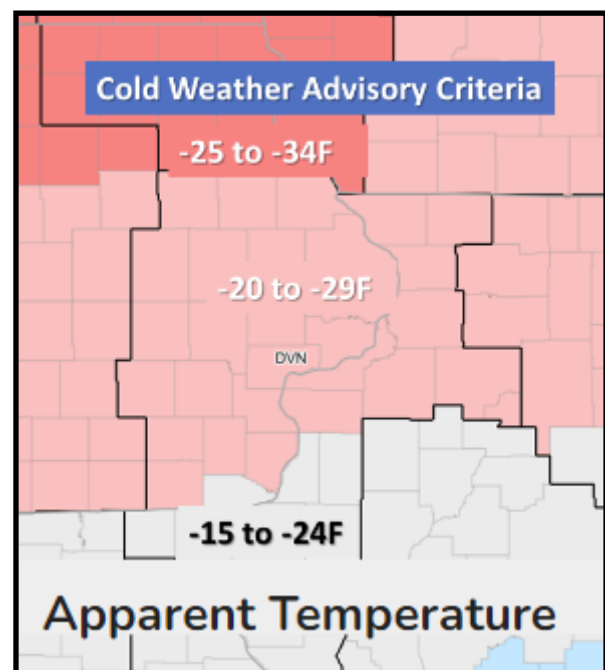
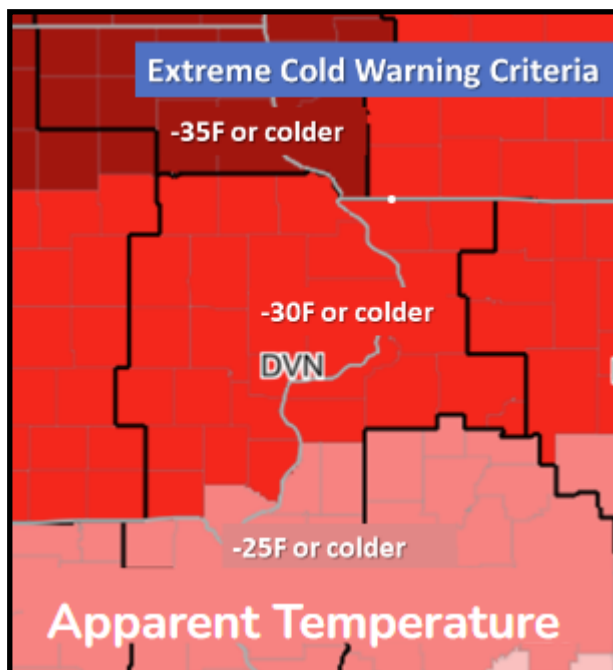
Map showing all of the Coop Observers (67) in the NWS Quad Cities County Warning Area (CWA).

Changes to Cold Weather Products This Winter

Rich Kinney

Key takeaways:

- ★ Wind Chill Watch/Warning/Advisory will be consolidated into the **Extreme Cold Watch/Warning** and **Cold Weather Advisory**
- ★ This new suite of products will allow the NWS to communicate that **cold is dangerous with or without wind**.
- ★ Wind chills will not go away although emphasis will be placed on “cold is cold” for public safety.
- ★ Criteria remains the same over most of the NWS Quad Cities Service Area (now 5 degrees warmer in some of our southern counties).



See below for a Service Change Notice on this change:

[Service Change Notice 23-44](#)

See below for a National fact sheet on this simplification.

[Hazard Simplification Fact Sheet](#)

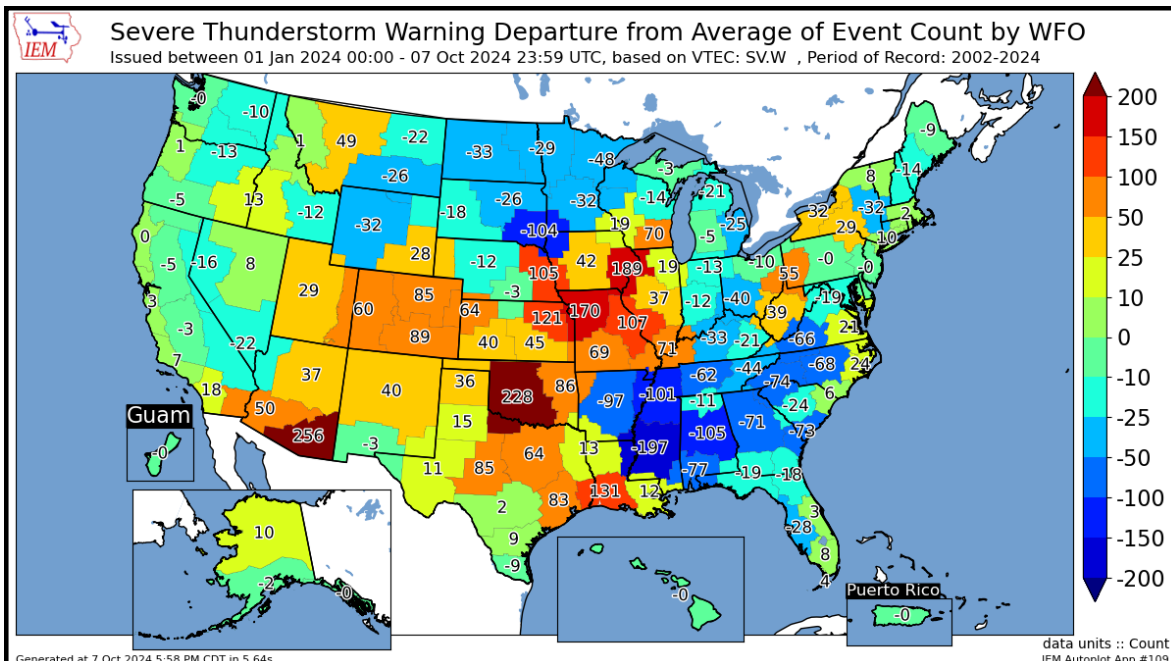
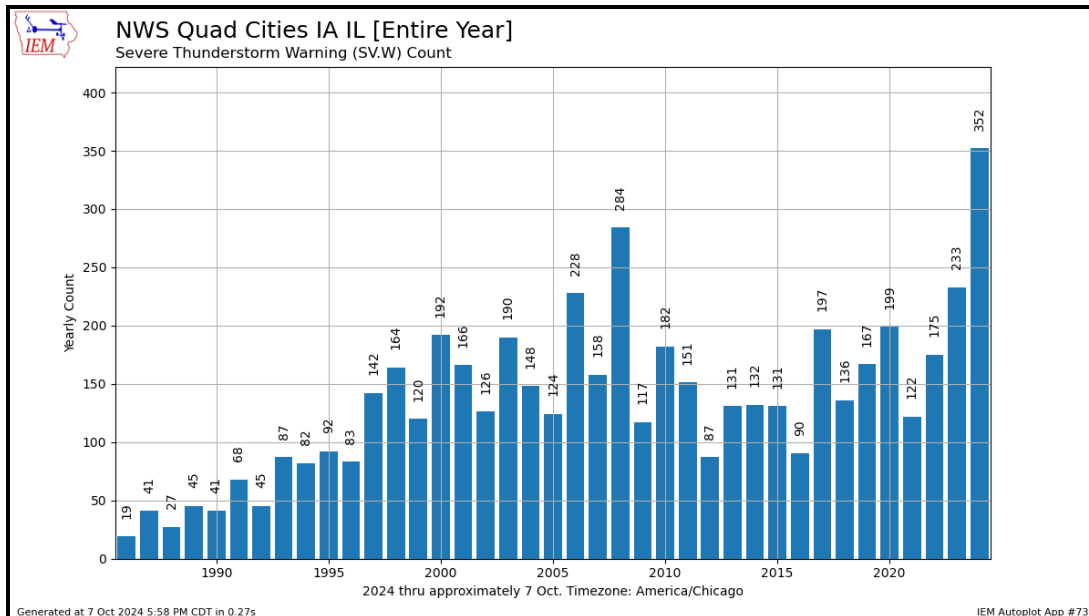
Criteria for all Watches/Warnings/Advisories issued by NWS Quad Cities: <https://www.weather.gov/dvn/headlines>

Retrospective: A Look Back at the Spring/Summer 2024 NWS Quad Cities Severe Weather

Justin Schultz and Matt Friedlein

It was quite the severe weather season across the NWS Quad Cities County Warning Area. In fact, it was one of the most active severe weather seasons our area has had over the last 40 years! No, we aren't pulling your leg, and the numbers show this, as this article offers a more aggregated look at this year's severe weather season as a whole.

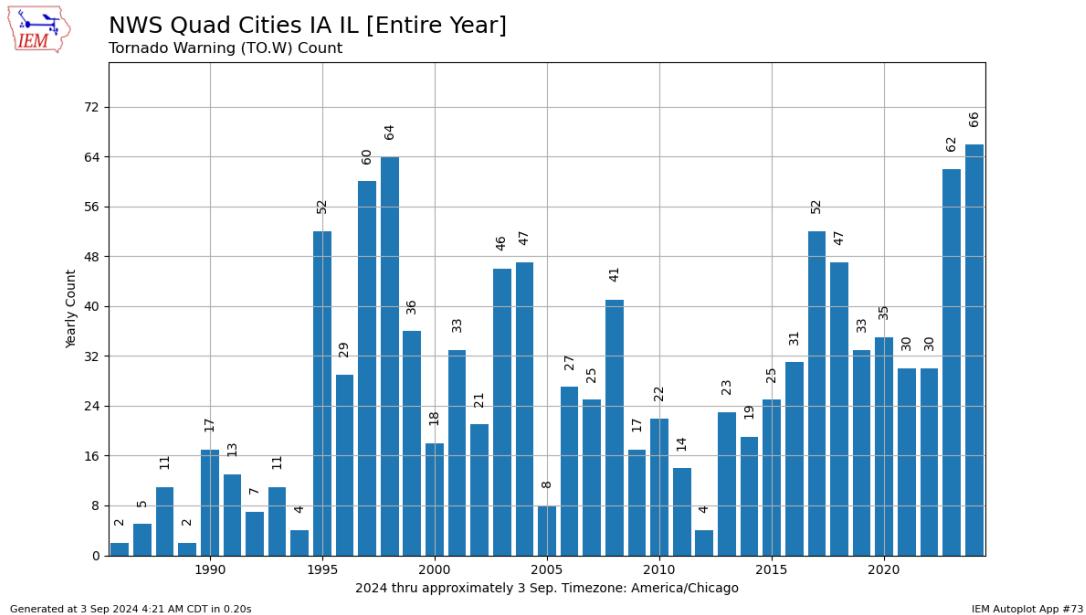
Using the robust data archive at the [Iowa Environmental Mesonet](https://www.iaenviro.com/), we are able to look back and check out just how many Severe Thunderstorm Warnings and Tornado Warnings we issued as an office (NOTE: these numbers are valid as of October 7, 2024 and may still change before the end of the year). First, let's discuss severe thunderstorms. In total, NWS Quad Cities issued **352 Severe Thunderstorm Warnings (SVRs)**. That blew by the previous year with the most SVRs over the last 40 years, which was **284 in 2008**. So we issued 63 more SVR warnings! Compared to the average number of SVRs we issue in a typical year (so far), we have issued 184 SVRs over our average! If we compare these departure numbers from average to the rest of the entire country, **we rank 3rd most in terms of highest departure from average for SVRs** (see map below), only behind the NWS Tucson, AZ and NWS Norman, OK offices!



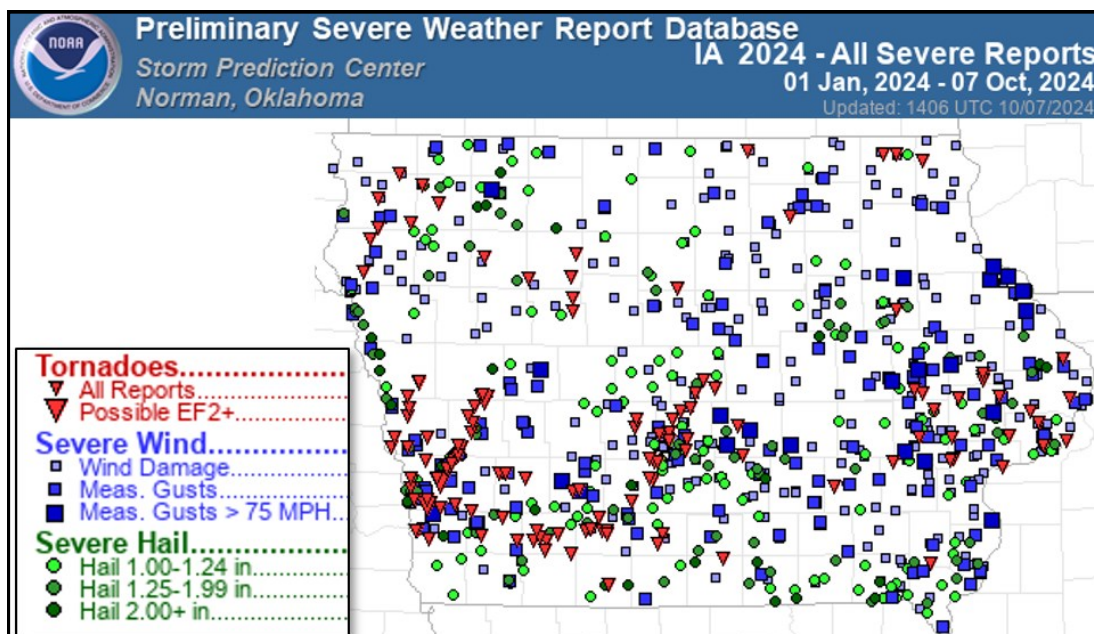
Retrospective: A Look Back at the Spring/Summer 2024 NWS Quad Cities Severe Weather

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Our very high numbers are not exclusive to Severe Thunderstorm Warnings though, as we also had the highest number of Tornado Warnings over the last 40 years. This year to this point, we have issued **66 Tornado Warnings (TORs)**, which surpasses 1998's 64 TORs as the most active Tornado Warning season! We even surpassed last year's numbers, a year which included the [March 31, 2023 Tornado Outbreak](#).

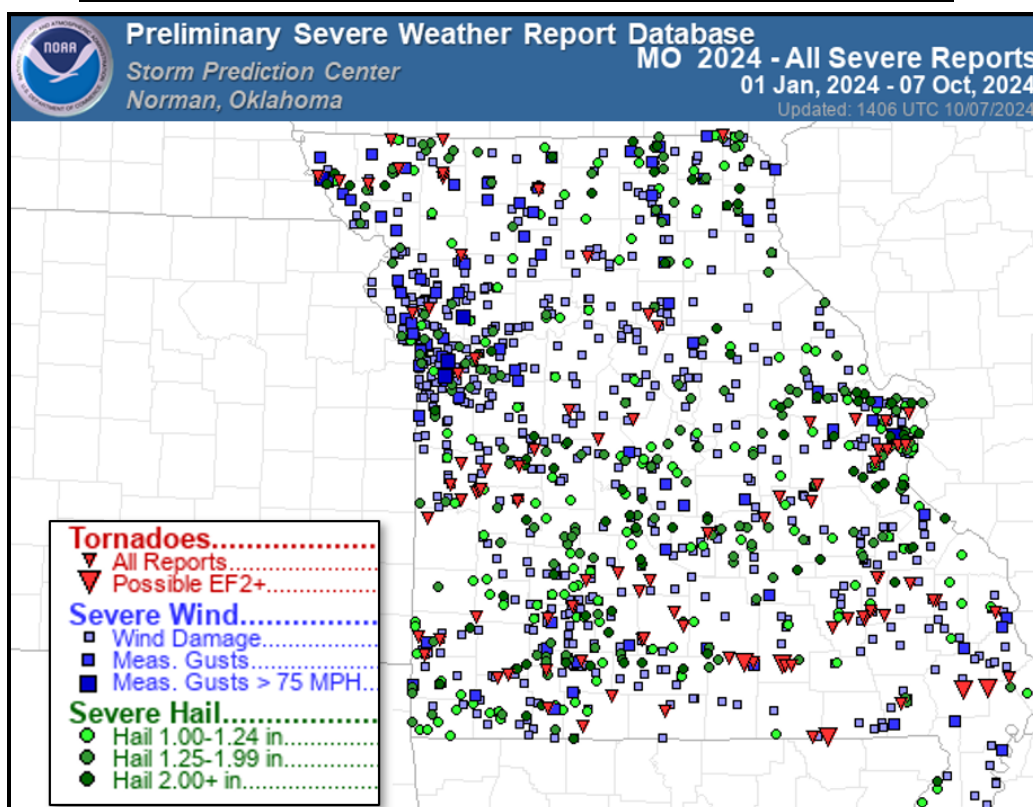
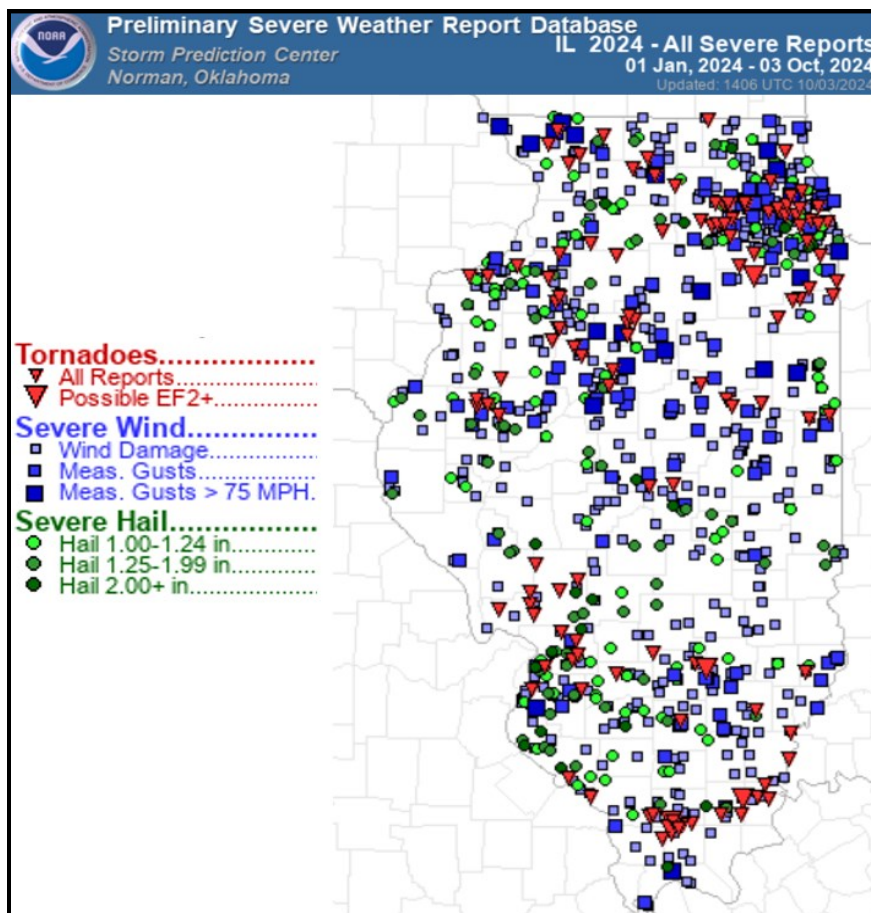


Now let's look at this in terms of observed severe weather. First, some background on severe weather reports. As we log them during an event, they are considered preliminary. We quality control them in the hours to weeks that follow an event, but they are not officially finalized until three months later in a monthly NWS published report called Storm Data. So for this year's severe weather season, some numbers are still preliminary. In order to not compare apples to oranges, the following maps are all preliminary reports using the [NWS Storms Prediction Center](#) database.



Retrospective: A Look Back at the Spring/Summer 2024 NWS Quad Cities Severe Weather

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Retrospective: A Look Back at the Spring/Summer 2024 NWS Quad Cities Severe Weather

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Some key takeaways we have in looking back at these year-to-date storm report maps and statistics:

- Many, many reports, including significant reports which are very large hail, higher-end severe winds, and some of the longer-lived and stronger tornadoes.
- In the NWS Quad Cities forecast area, there have been **636 reports of severe weather**, compared to the 10-year annual average of **339 reports that we have nearly doubled!**
- It is quite possible when the number of tornadoes are finalized, that Iowa will cement a record number of annual tornadoes (record is 120 in 2004), and Illinois could be close as well (record is 124 in [2006](#)).
- Two events for our area had a high amount of tornadoes, and they were both derechos, which are very long-lived and damaging wind-producing thunderstorm complexes that can often have numerous embedded tornadoes:
 - [May 24](#): Derecho over much of Iowa into far western Illinois
 - [July 15](#): Derecho in far eastern Iowa and much of northern Illinois
- On [April 16](#), a tornado persisted for 42 miles in southeast Iowa across Lee, Henry, and Des Moines Counties. Less than 2% of all tornadoes in our area since 1950 have had such a long path length!

Maybe the most important number for our County Warning Area was **no reported injuries** from thunderstorm events so far this year. This speaks to our core partners preparing in advance and effectively relaying information, and citizens being alert given the forecast and then correctly heeding warning information. The severe weather warning process depends heavily on proper and swift response by warning recipients, and that certainly has been the case this year. **Thank you for being weather-ready!**

For more on individual events, please see our [Events Summaries](#) page shown below, and what a long list it is!

2024

- [August 27th](#) - Golf ball size hail in northeast MO and significant wind damage in Burlington, IA
- [July 25th](#) - Localized flash flooding in far southeast IA and far western IL
- [July 15th](#) - Derecho across Iowa, Illinois, and Indiana
- [July 14th](#) - Damaging wind across Illinois
- [July 2nd](#) - Strong wind and heavy rain-producing storms, including damage near I-80 in IA
- [June 25th](#) - Four tornadoes/landspouts in eastern IA, as well as scattered hail and wind
- [June 16th](#) - Scattered severe wind-producing storms from the Quad Cities into northwest IL
- [June 13th](#) - Baseball hail in southeast IA and 2 brief tornadoes in McDonough county in IL
- [June 3rd](#) - Flash flooding and scattered wind damage in Dubuque, IA
- [May 27th](#) - Scattered severe storms bring hail and isolated damaging winds
- [May 24th](#) - Derecho across Iowa, with numerous tornadoes in eastern IA and northwest IL
- [May 21st](#) - Widespread damaging winds over 70 mph across eastern IA and northern IL
- [May 7th](#) - Multiple rounds of storms with some severe
- [May 2nd](#) - Severe storms in McDonough County, IL
- [April 16th](#) - Widespread damaging wind, large hail, and 2 tornadoes
- [March 31st](#) - Long-lived supercell storm produces swath of severe hail including in Macomb, IL
- [March 13th-14th](#) - Large hail, heavy rain, and one tornado in Warren County
- [March 4th](#) - Numerous hail-producing storms, some as large as golf balls
- [February 27th](#) - Large hail in northwest IL and Henry County EF1 tornado, then an extreme temperature drop
- [February 8th](#) - Large hail in northwest IL and Putnam County EF1 tornado

NWS Forecaster Exchange Program

Mike McClure

Over the past couple of years the National Weather Service (NWS) has started a Forecaster Exchange Program. The primary goal of the program is to improve offices through the sharing of best practices. But that's not all! There's plenty of other benefits to the program including, the strengthening of partnerships and the ability to network with staff, which could foster opportunities for future joint research possibilities and upward mobility in the NWS.

Recently, we had a couple of Meteorologists visit from the NWS office in Des Moines, Iowa. They were able to observe our operations and we exchanged ideas and best practices, discussed operational tools, shift scheduling and office culture. It was a great visit!

Not only have we been done exchanges with neighboring offices, but last year we also participated in a forecaster exchange with NWS offices outside of our region including Spokane, Washington (Western Region) and Memphis, Tennessee (Southern Region). These exchanges are very invaluable not only with neighboring offices, but especially offices from a different region that typically have different tools, resources and operating guidelines. To say that these exchanges are mutually beneficial is an understatement, as they offer many opportunities to also learn more about each other and our operational approaches!

[Map of the NWS Regions](#)



From left to right: NWS Quad Cities Meteorologists Rich Kinney, TJ Gunkel, Andy Ervin, and NWS Des Moines Meteorologists Brooke Hagenhoff and Kristy Carter.



NWS Memphis Meteorologist Andy Chiuppi (L) and NWS Quad Cities Meteorologist TJ Gunkel (R).

Fall Outdoor Safety

STORE OR SECURE LOOSE ITEMS BEFORE STRONG WINDS



Icons and Labels:





-  Patio furniture
-  Sports equipment
-  Trash cans
-  Trampolines


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DRIVING DURING STRONG WINDS

Icons and Labels:

-  Maintain a safe distance from high-profile vehicles
-  Keep a firm grip on the wheel with both hands
-  Look out for fallen/falling trees, powerlines, or debris
-  Use caution on bridges and overpasses

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PATCHY FOG CAN SURPRISE YOU

Icons and Labels:

-  Be ready for sudden changes in visibility
-  Turn on your low-beam headlights when approaching fog
-  Drive slowly, and keep your distance from other vehicles
-  Use extra caution on bridges and in valleys



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Fall Weather Safety Resources

- [Flood](#)
- [Fog](#)
- [Wind](#)
- [Tornadoes](#)
- [Wildfire](#)
- [Hurricanes](#)
- [Lightning](#)
- [Heat](#)

Additional Webpage Resources

- [Weather Prediction Center](#)
- [Storm Prediction Center](#)
- [Climate Prediction Center](#)
- [National Hurricane Center](#)
- [Aviation Weather Center](#)
- [Weather Story](#)
- [Forecast Points](#)

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Follow NWS Quad Cities!



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