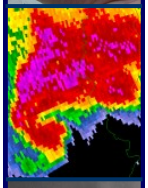
Iowa/Nebraska Severe Weather Awareness Week 2023

March 27 - 31, 2023







It's fair to say that 2022 brought unique weather to all portions of Nebraska. From tornadoes, to giant hailstones to wildfires and dust storms, our weather has been impactful. The National Weather Service remains committed to working with leaders from across the state to build "Weather-Ready" communities.

March 27-31 is Nebraska Severe Weather Awareness Week. We encourage everyone to take time to review and practice your severe weather plan for your home or office. If you don't have a plan, this is a great time to consider developing one and sharing it with others. Preparing an emergency kit with basic supplies such as food, water, blankets and a flashlight can save precious time when reacting to an actual event. By working together to ensure we are ready for disaster, we can better prepare our families, friends, and communities for these times.

Your Storm Reports in Action

Although it is not common for severe weather to occur in the winter, Nebraska has had at least one reported tornado during each month of the year since official records have been kept. The reports we receive from our partners and the public contribute to keeping our neighbors and fellow Nebraskans safe when disaster strikes.

The ground truth provided gives forecasters an idea of what a storm is doing. These reports are used in research aimed at better understanding how storms work. Your storm reports play a vital role in keeping others safe, both now and in the years to come.

Tornado Number Trends

Tornadoes reported across Nebraska in 2022 were down greatly from the 30-year average of 49. Only 26 tornadoes occurred in the state last year. April had the most tornadoes with 10, with June coming in second with 9.

Storm reports are eyewitness reports providing critical information to meteorologists making warning decisions. This real time information allows forecasters to have ground truth of what is actually happening below where the radar cannot see.

We are grateful to our storm spotters, partners, and local community members for your continued support and assistance in providing this information.

What's Inside?

Statewide Tornado Safety Drill

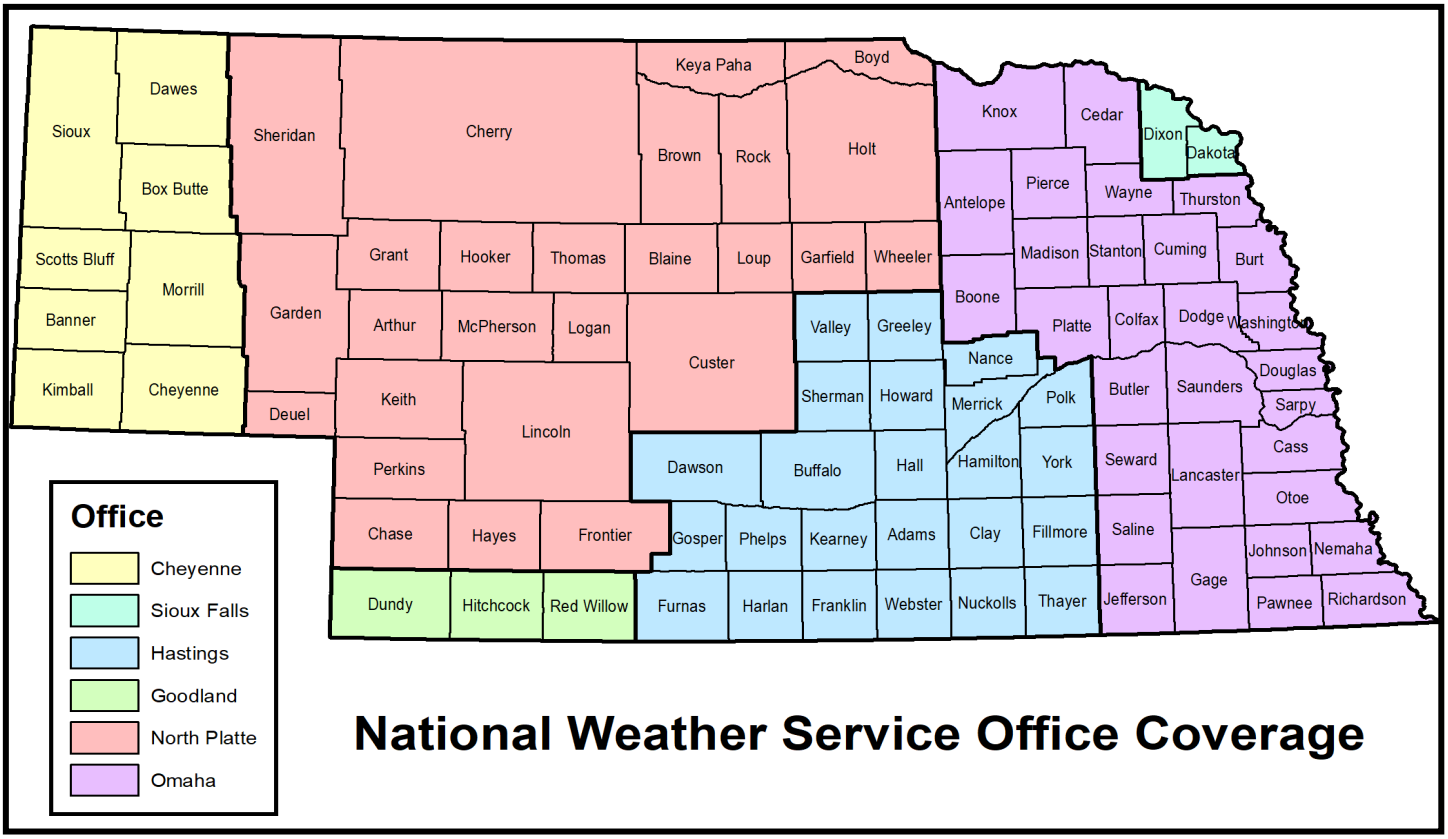
Test Warning:
10:00 a.m. CDT
9:00 a.m. MDT

Do you and your family know what to do if a tornado threatens?

Practice your plan of action!

National Weather Service Offices Serving Nebraska

Severe Weather Awareness Week | March 27 - 31, 2023



Panhandle
Cheyenne, WY

1301 Airport Parkway
Cheyenne, WY 82001

www.weather.gov/cheyenne
nws.cheyenne@noaa.gov
(307) 772-2468

West and North Central
North Platte

5250 E. Lee Bird Drive
North Platte, NE 69101

www.weather.gov/northplatte
nws.northplatte@noaa.gov
(308) 532-4936

Extreme Southwest
Goodland, KS

920 Armory Road
Goodland, KS 67735

www.weather.gov/goodland
nws.goodland@noaa.gov
(785) 899-7119

South Central
Hastings

6365 N. Osborne Drive West
Hastings, NE 68901

www.weather.gov/hastings
nws.hastings@noaa.gov
(402) 462-4287

East
Omaha/Valley

6707 N. 288th Street
Valley, NE 68064

www.weather.gov/omaha
nws.omaha@noaa.gov
(402) 359-9443

Extreme Northeast
Sioux Falls, SD

26 Weather Lane
Sioux Falls, SD 57104

www.weather.gov/siouxfalls
nws.siouxfalls@noaa.gov
(605) 330-4247

National Weather Service Offices Serving Nebraska

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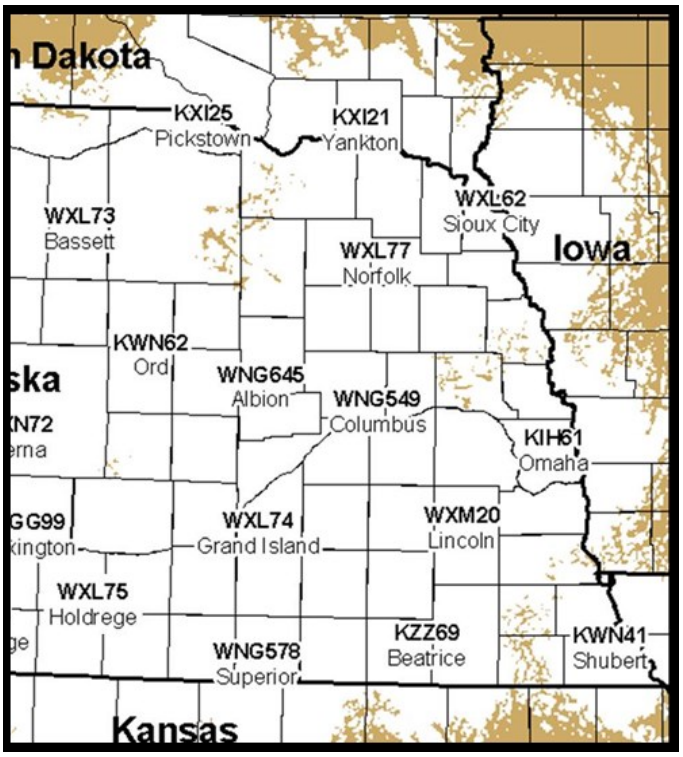
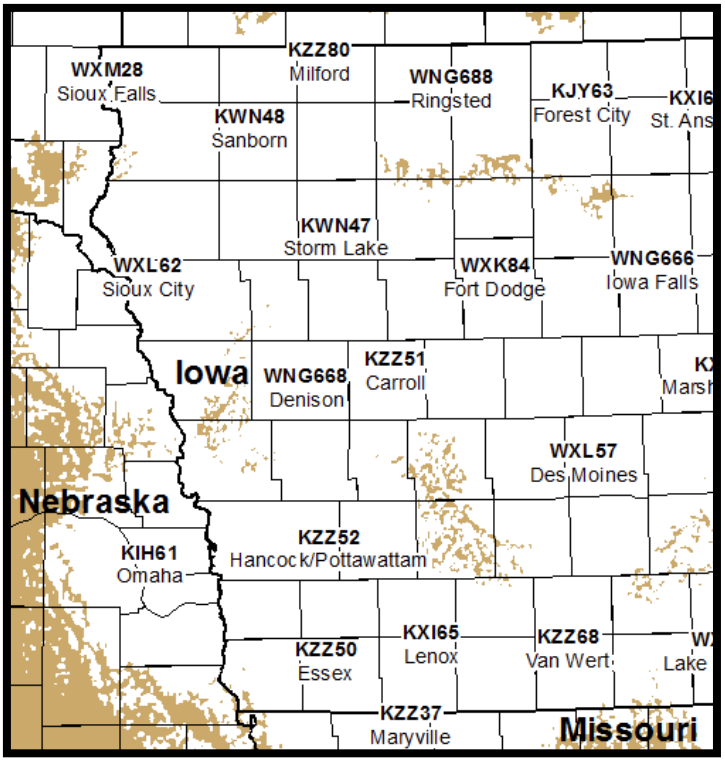
National Weather Service
Weather Forecast Offices

Southwest Omaha/Valley, NE 6707 N. 288th Street Valley, NE 68064 (402) 359-5205 www.weather.gov/omaha	Northwest Sioux Falls, SD 26 Weather Lane Sioux Falls, SD 57104-0198 (605) 330-4247 www.weather.gov/siouxfalls	Central Des Moines 9607 NW Beaver Drive Johnston, IA 50131-1908 (515) 270-2614 www.weather.gov/desmoines
Northeast La Crosse, WI N2788 County Road FA LaCrosse, WI 54601 (608) 784-7294 www.weather.gov/lacrosse		Southeast Quad Cities IA/IL 9040 N Harrison Street Davenport Municipal Airport Davenport, IA 52806-7326 (563) 386-3976 www.weather.gov/davenport

NOAA Weather Radio All-Hazards

Severe Weather Awareness Week March 27 - 31, 2023





NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

Working with the Federal Communication Commission's (FCC) Emergency Alert System, NWR is an "All Hazards" radio network, making it your single source for comprehensive weather and emergency information. In conjunction with Federal, State, and Local Emergency Managers and other public officials, NWR also broadcasts warning and post-event information for all types of hazards, including natural (such as tornadoes or floods), environmental (such as chemical releases or oil spills), and public safety (such as AMBER alerts or 911 Telephone outages).

Known as the "Voice of NOAA's National Weather Service," NWR is provided as a public service by the National Oceanic and Atmospheric Administration (NOAA). NWR includes 1000 transmitters, covering all 50 states, adjacent coastal waters, Puerto Rico, the U.S. Virgin Islands, and the U.S. Pacific Territories. NWR requires a special radio receiver or scanner capable of picking up the signal. Broadcasts are found in the VHF public service band at these seven frequencies (MHz):

162.400	162.425	162.450	162.475	162.500	162.525	162.550

Coverage information and SAME Codes for every county in Nebraska can be found at:

www.weather.gov/nwr/nebraska

2022 Nebraska Tornado/Severe Weather Facts

Severe Weather Awareness Week | March 27 - 31, 2023

Tornadoes: 26 (15 less than the 1950-2022 average of 41 & 23 less than the 30 year average of 49)

Deaths: 0 **Injuries: 2**

Longest track: 9.56 mi (July 3rd - Hall to Merrick Counties)

Greatest width: 400 yards (June 14th - In York County)

Strongest: EF2 (June 14th– In York County)

Most in a county: 3 (Harlan and Otoe Counties)

Days with at least 1 confirmed tornado: 15

Most in one day: 7 (April 29th)

Most in one month: 10 (April) **6 more than the April normal of 4!**

First tornado of 2022: April 17th (EFU In Seward County)

Last tornado of 2022: July 3rd – 4th (EF1 - In Hall and Merrick Counties)

Note: EFU = The EF-U designation was created to classify tornadoes where the wind speed is unknown due to no discernable damage

2022 Monthly Tornado Totals

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	
Total	0	0	0	10	6	9	1	0	0	0	0	0	26	100%
EF5	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
EF4	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
EF3	0	0	0	0	0	0	0	0	0	0	0	0	0	0%
EF2	0	0	0	0	0	1	0	0	0	0	0	0	1	4%
EF1	0	0	0	4	1	2	1	0	0	0	0	0	8	31%
EF0	0	0	0	1	0	1	0	0	0	0	0	0	2	7%
EFU	0	0	0	5	5	5	0	0	0	0	0	0	15	58%

2022 Season Peak...

Hail Size: 6" on May 29th - Northeast of Almeria (Loup County)

Wind Gust: 105 MPH on June 14th - Near Waco (York County)

Nebraska Tornado Facts

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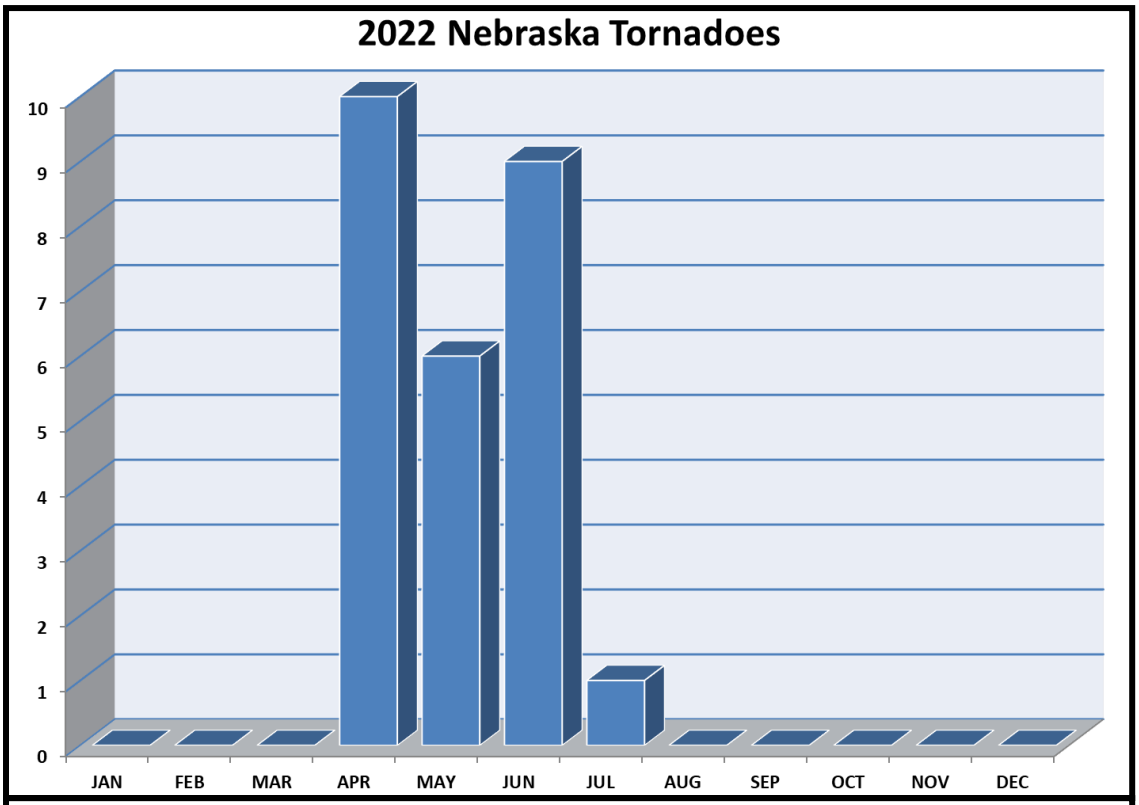

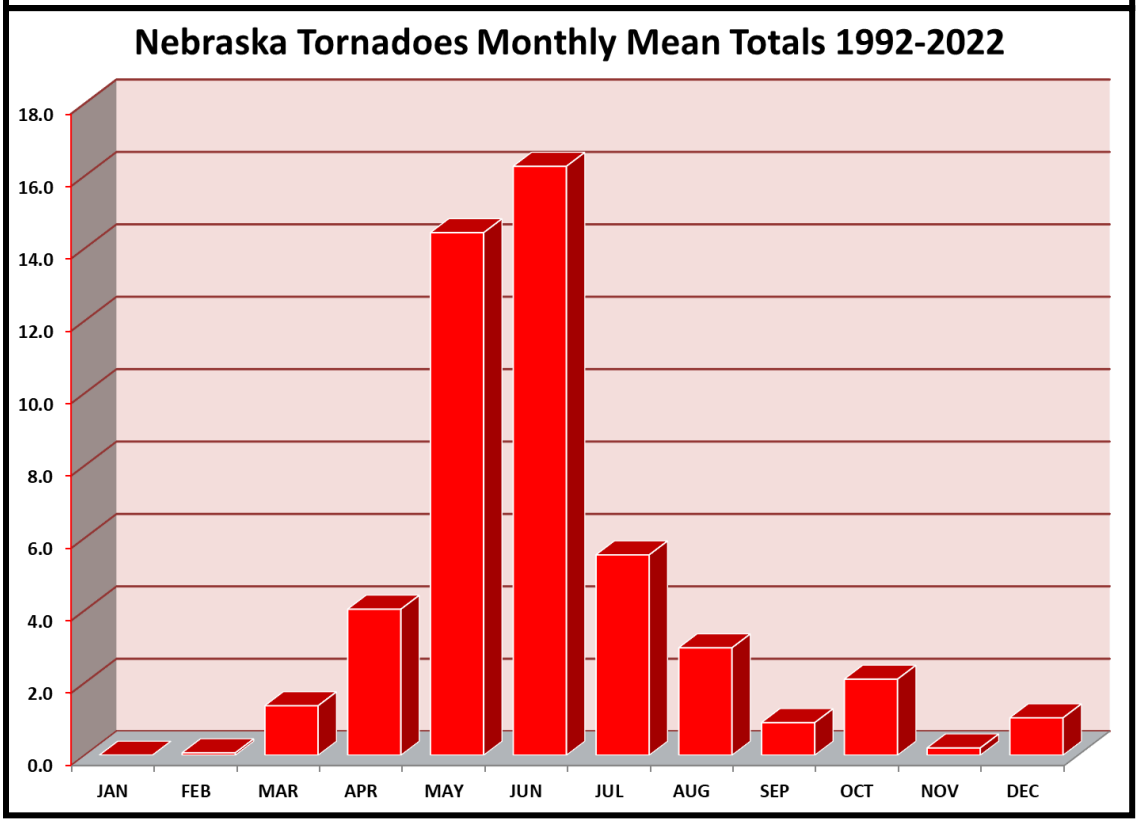

Nebraska Tornado Facts

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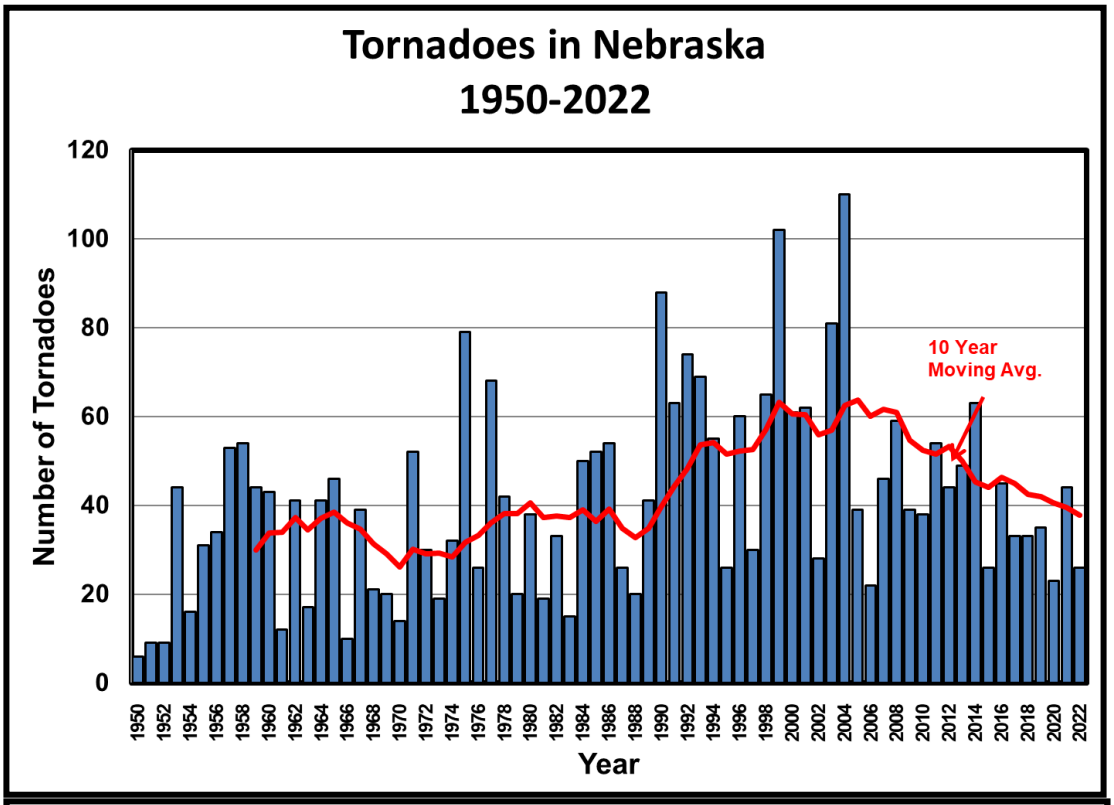
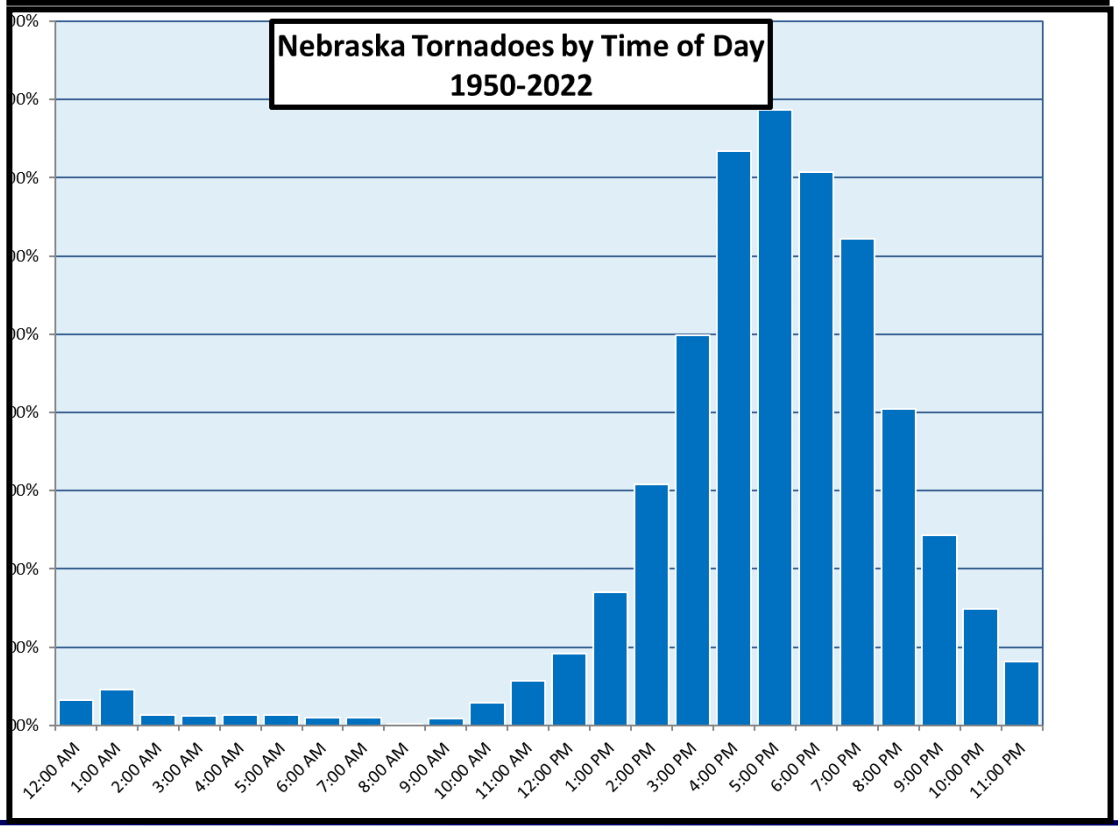




Nebraska Severe Weather Reports

Severe Weather Awareness Week | March 27 - 31, 2023

You can send a Severe Weather Report using Social Media. This is an example of a report received by the Omaha/Valley Office using Twitter

Have you found us on your favorite social media platform?

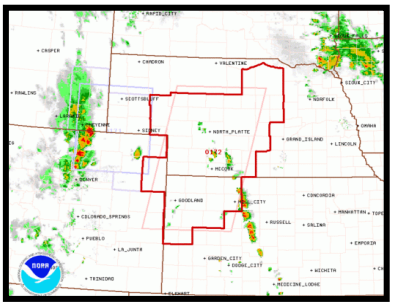
Find and follow us for the latest weather updates, climate facts, and cool pictures!

NWS Omaha/Valley, NE	**@NWSOmaha**	**US National Weather Service Omaha**
NWS Hastings, NE	**@NWSHastings**	**US National Weather Service Hastings**
NWS North Platte, NE	**@NWSNorthPlatte**	**US National Weather Service North Platte**
NWS Cheyenne, WY	**@NWSCheyenne**	**US National Weather Service Cheyenne**
NWS Goodland, KS	**@NWSGoodland**	**US National Weather Service Goodland**
NWS Sioux Falls, SD	**@NWSSiouxFalls**	**US National Weather Service Sioux Falls**

Find NWS North Platte on Instagram! @nwsnorthplatte

Severe Weather Terminology

www.weather.gov/safety



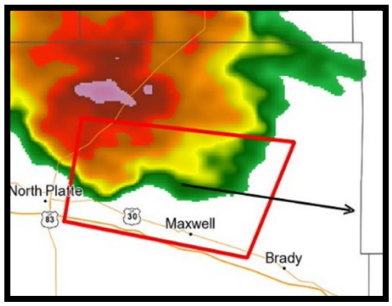
WATCH

Be Prepared!

- **Issued by the Storm Prediction Center.**
- **Timeframe: Hours ahead. Be Alert!**
- **Watch areas are typically large, covering numerous counties & even states.**
- **Check for forecast updates.**
- **Monitor sky conditions.**
- **Know where to take shelter.**

WARNING

Take Action!



- **Issued by the local NWS forecast offices.**
- **Timeframe: Severe weather in the area is imminent. Take shelter!**
- **Warning areas are small, perhaps a handful of counties at most.**
- **Continue to check for forecast updates, as conditions can change rapidly.**

Severe Thunderstorm

A thunderstorm is considered "severe" when it produces:

- **Quarter size hail (1") or larger**
- **Wind of 58 MPH or higher**
- **A tornado**

Flash Flood

A rapid water rise that occurs with little to no advanced warning.

Usually the result of intense rainfall in a short time.

Can also be caused by dam/levee failures or ice jams.

Funnel Cloud

A funnel shaped appendage extending from a cloud.

Associated with a violently rotating column of air.

It IS NOT in contact with the ground.

Tornado

A violently rotating column of air from a cloud that IS in contact with the ground.

Be cautious! The tornado may not be visible until it has picked up dirt and debris.

Tornado Safety

www.weather.gov/safety

A **tornado** is a violently rotating column of air extending from the base of a thunderstorm down to the ground. Tornadoes are capable of completely destroying well-made structures, uprooting trees, and hurling objects through the air like deadly missiles. Tornadoes can occur at any time of day or night and at any time of the year. Although tornadoes are most common in the Central Plains and the southeastern United States, they have been reported in all 50 states. Are you prepared?

BEFORE

Be Weather-Ready: Know the risk in your area. Have a NOAA Weather Radio and be sure to stay up to date with the latest weather information.

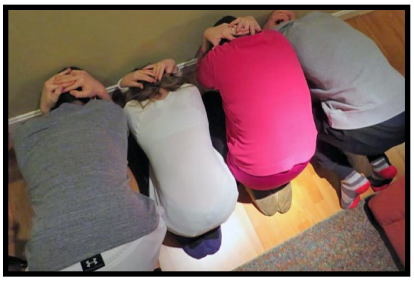
Have A Plan: Create a family plan with contact information and an emergency meeting place. Practice your plan!

Shelter: Pick a safe room in your home such as a basement, cellar or an interior room on the lowest floor with no windows. If you live in a mobile home, identify a nearby shelter you can get to quickly. Practice with your family by having regular drills. Prepare an Emergency Kit.

Warnings: Know how your community sends warnings. Some have outdoor sirens, others depend on media and smart phones to alert residents. Have multiple ways to receive warnings!

DURING

Stay Weather-Ready: Continue to listen NOAA Weather Radio and local news to stay updated about severe weather watches and warnings.



At Your House: If you are in a tornado warning, go to your basement, safe room, or an interior room on the lowest floor of the building away from windows. Don't forget pets if time allows.

At Your Workplace or School: Follow your tornado drill and proceed to your tornado shelter location quickly and calmly. Stay away from windows and do not go to large open rooms such as cafeterias, gymnasiums, or auditoriums.

Outside: Seek shelter inside a sturdy building immediately. Sheds and storage facilities are not safe, neither is a mobile home or tent. If no shelter is available, take cover in a ditch or low lying area.

In a vehicle: Being in a vehicle during a tornado is not safe. The best course of action is to drive to the closest shelter. If you are unable to make it to a safe shelter, either get down in your car and cover your head, or abandon your car and seek shelter in a low lying area such as a ditch or ravine.

AFTER

Stay Informed: Continue to listen to NOAA Weather Radio and local news for the latest updates. Multiple rounds of severe thunderstorms are possible during severe weather outbreaks. Follow instructions of local authorities!

Contact Loved Ones: Let them know you are okay. Text messages or social media can be a more reliable than phone calls.

Assess the Damage: After the threat has ended, check for damage. If possible, wear long pants, a long-sleeved shirt and sturdy shoes. Stay out of damaged buildings.

Help Your Neighbor: If you come across people that are injured and you are properly trained, provide first aid to victims until emergency response teams arrive.

Flood Safety

www.weather.gov/safety

Flooding is a coast-to-coast threat to the United States every year. If you know what to do when flooding occurs, you can increase your chances of survival. Sometimes floods develop slowly and can be anticipated. More often, flash floods can occur within minutes and sometimes without any advance warning. Being properly prepared can save your life and give you peace of mind. Never underestimated the power of water.

Before a flood is the time to prepare!

NOW is the time to make a plan. Important questions to consider:

- What is my flood risk?
- Are we located in a floodplain?
- Where is water likely to collect?
- Where do I go if there is a flood?

The answer to many of these questions and more can be found at floods.nebraska.gov

Create a communications plan to follow in the event of a disaster and be sure to assemble an emergency kit.

During a Flood…

- **Stay Informed!** Monitor NOAA Weather Radio, local radio/television and the internet or social media for the latest information and updates.

- **Get To Higher Ground!** Get out of areas that are subject to flooding and move to a safe area before access is cut off by flood waters. If told to evacuate, do so immediately!

- **DO NOT** drive into flooded roadways or around a barricade, as 12-18 inches of water can carry away most vehicles. The depth of the water may not be obvious and the roadway may no longer be intact. If your vehicle stalls, leave it and move to higher ground before water sweeps you and your vehicle away.

- **DO NOT** walk, swim, or play in flood water. You likely cannot determine how quickly the water is flowing or if there are holes or submerged debris. You may be swept away! As little as 6 inches of rapidly moving water can knock you off of your feet. There is also a danger of hazardous materials polluting the water. Also remember that water is an electrical conductor; if there are power lines down, there is a threat of electrocution.

- **DO NOT** go into any room if water is covering electrical outlets or cords. If you see sparks or hear buzzing, crackling, snapping or popping noises - Get Out! Do not go into flooded basements as the structures may be compromised.

After a Flood - Now What?

- Avoid flood waters and disaster areas. Obey road closures and other instructions.

- Stay informed! Tune into local news for updated information. Ensure water is safe before using or consuming. Check with utility companies about outages. Never use a portable generator indoors—carbon monoxide poisoning kills!

- Let your family and friends know you are okay.

Lightning Safety

www.weather.gov/safety

When Thunder Roars, Go Indoors!

Lightning is fascinating to watch but is also extremely dangerous. In the United States, there are approximately 25 million lightning strikes every year. Each of those flashes is a potential killer. While lightning fatalities have decreased over the past 30 years, it remains a threat that needs to be taken seriously. Too many people wait far too long to get to safe shelter when thunderstorms approach. These delayed actions lead to many of the lightning deaths and injuries reported each year.

Although lightning strikes peak in summer, people are struck year round. In the U.S., an average of at least 20 people are killed each year by lightning and hundreds more are severely injured. Some survivors suffer lifelong health problems.

Don't become a statistic - Be Prepared!

Outdoor Safety

- There is **NO** safe place outdoors when thunderstorms are in the area!
- Plan ahead before going outdoors. Have a way to get the latest weather information. Know what to do and where to go if storms develop.
- When you hear thunder, immediately move to safe shelter: a building or an enclosed, metal-topped vehicle with windows up. Do NOT seek shelter in dugouts, under a picnic shelter, or other non-sturdy structure.
- Wait at least 30 minutes after the last rumble of thunder before heading back outdoors!

Outdoors - But Safe Shelter Is Not Nearby

If you absolutely cannot get to safety, there are ways to slightly lessen the threat of being struck. But don't kid yourself, you are NOT safe outdoors! Before you head out, know the latest forecast.

- Avoid open fields and elevated areas such as hills, mountain ridges, or peaks. Stay away from tall and isolated objects such as telephone poles and trees.
- If camping in an open area, head for a valley, ravine, or other low area. Tents offer NO protection!
- If you are in a group, spread out to avoid the current traveling between members.
- Immediately get out of and away from water and wet items. Stay away from any object that conducts electricity (barbed wire fences, power lines, windmills, etc.).

Indoor Safety

- Avoid anything that puts you in direct contact with electricity (plugged into a wall).
- Avoid plumbing. Do not wash your hands, bathe or wash dishes.
- Stay away from windows and doors and stay off porches.
- Do not lie on concrete floors and do not lean against concrete walls.
- Protect your pets! Dog houses are not safe. Don't leave pets chained up outside.

Recreational Safety

www.weather.gov/safety

A trip to your favorite camping spot or fishing lake should be exciting. Though, the excitement can quickly change to fear and resentment when inclement weather threatens your favorite recreational spot. The National Weather Service (NWS) can help ensure you have a wonderful time that is full of great memories and fun.

These tent poles were broken when a tent was blown away by a strong thunderstorm. Photo Credit: Darren Snively

To stay safe, you need to be aware of the expected weather and your surroundings. Storms can create a myriad of hazards, such as lightning, extremely gusty winds, flooding rains, large hail and even tornadoes. By simply following these suggestions, you can help raise awareness and stay safe while recreating.

What should you do before venturing out to your favorite recreation site? Always check the forecast and notify friends and family of your plans. Scout out your evacuation plan before arriving on site and then determine how long it would take to get to your safe shelter in the event inclement weather approaches. And it's always a good idea to test out your weather radio and ensure you have a first aid kit readily available.

Once you arrive at your destination, have fun, but always provide for safety first. This means identifying potential hazards to you and those recreating with you. Are you camping under a tree? If so, what happens if thunderstorm winds approach? Will you be boating? Are there wind or beach hazards you should remain alert to? Does your recreation site have limited access in and out? These are all valid questions that would need to be address to ensure a safe trip. The best way to remain situationally aware to changing weather conditions is simply to monitor the current and expected conditions and then act immediately once warnings are issued. If by chance you observe ongoing severe weather or damage, feel free to report it to the local National Weather Service office. Ground truth reports are especially appreciated from recreational areas.

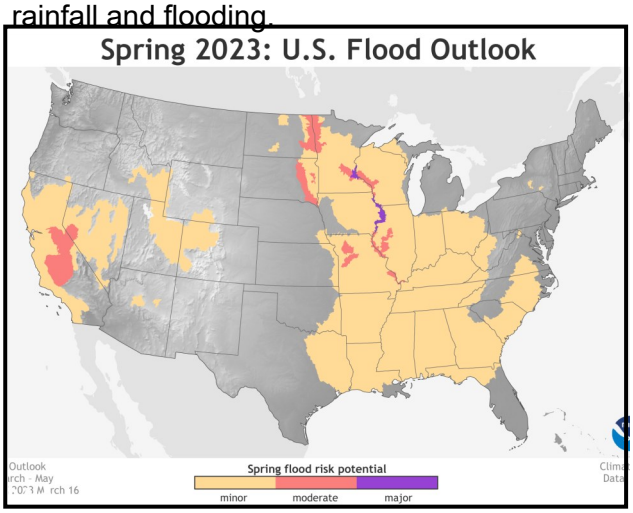
Once you return home, consider being a positive force multiplier in the recreational community by including photos or sharing reviews to help others safely recreate. It's always a good idea to plan ahead, so start thinking about your next camping trip or day at the beach.

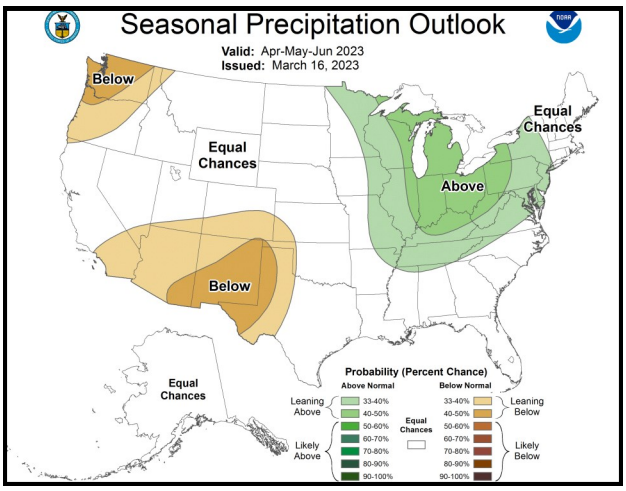
Something as simple as a falling tree branch during strong winds can injure a person in a tent. Photo Credit: Shawn Jacobs.

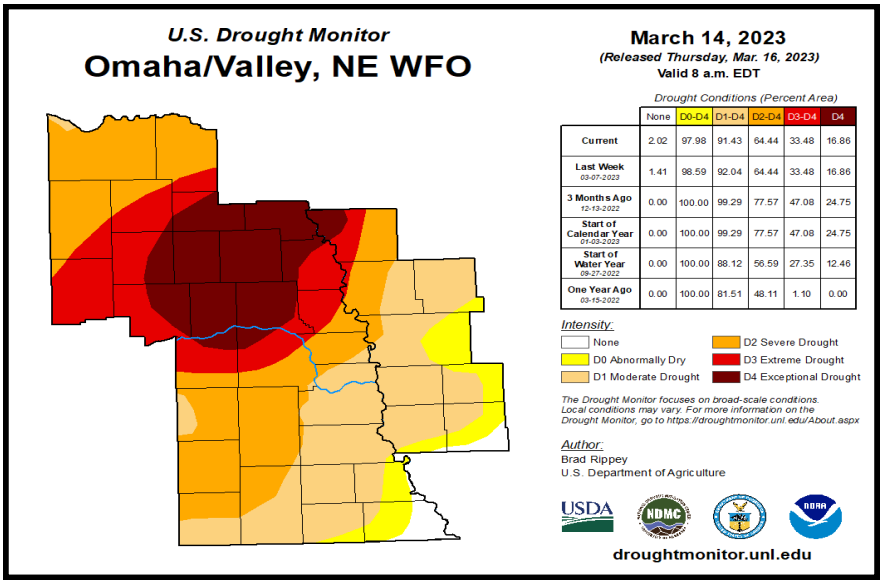
2023
Spring Flood Outlook

Severe Weather Awareness Week | March 27 - 31, 2023

Each year, the NWS assesses the spring time flooding potential for Nebraska and Iowa . This year, the overall flooding risk is below normal, except for portions of southeast Nebraska and extreme southwest Iowa, where there is a portential for minor flooding. Higher snow pack in the Dakotas and Upper Mississippi Valley is expected to melt into parts of the Missouri River Basin and create a threat of flooding over southeast Nebraska and ex-treme southwest Iowa. Moderate up to Extreme Drought conditions across a large part of Nebraska should mitigate flooding risk. Any flooding that does occur this spring will be largely dependent on the location and intensity of additional precipitation. The three month precipitation outlook of April through June has equal chances of either above, below, or normal conditions. The snow cover in Nebraska has all melted except in the extreme northeast corner of the state and will be a non-issue in this flood outlook. The mountain snow-pack in Colorado and Wyoming that feeds the Platte River is below normal to just above normal at 80 to 105 percent. The snowpack across the mountains of Montana that feed the Missouri River was 100 to 125 per-cent of normal and the flood risk along the Missouri River in Nebraska and Iowa can generally be character-ized as below normal this spring. Ultimately the location and amount of spring rainfall will play heavily into how much flooding we see across the region over the next few months. It is also important to remember that even in the current dry period, we can still see localized heavy rainfall and flooding.







2022 Nebraska Severe Weather Summary

Severe Weather Awareness Week | March 27 - 31, 2023

Nebraska Panhandle - NWS Cheyenne, WY

The 2022 Severe Weather Season for the Nebraska Panhandle was an overall less active year with less storm reports and overall Severe Thunderstorm Warnings and Tornado Warnings. However, sporadic severe weather events did occur, and as we always say, it can take just one storm to hit a community or several crop fields, and it is a bad year for those select few. This was no exception in 2022 the NWS Cheyenne office issued 129 Severe Thunderstorm Warnings and Tornado Warnings combined (Figure 1). This falls slightly below average and the least in the past 10 years with 2012 being lower at 92 total warnings. 2019 Remains the high banner year with 454 Severe Thunderstorm and Tornado Warnings combined during that busy season.

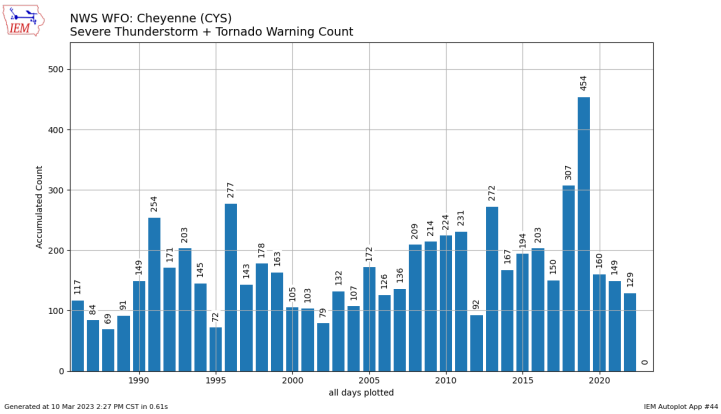


Figure 1. Tornado and Severe Thunderstorm Warnings issued by NWS Cheyenne in 2022.

Analyzing the overall 2022 Severe Thunderstorm Warning count across NWS Cheyenne's coverage area, the NE Panhandle was more active then Wyoming with localized hotspots in Dawes, Box Butte, Scotts Bluff, and Kimball Counties (Figure 2). Lower amounts of Severe Thunderstorm Warnings occurred farther west in Wyoming with the exception of Niobrara County. Only three Tornado Warnings were issued by the NWS Cheyenne office in 2022 (Figure 3). All three did include a portion of the Nebraska Panhandle. Several funnels were reported with the two Nebraska Tornado Warnings and a tornado did occur just west of the WY/NE border near Van Tassel, WY on June 7, 2022.

The most impactful severe weather event of 2022 for the NE Panhandle occurred July 5th with baseball to softball sized falling in Box Butte and Morril Counties. This hail caused significant crop damage as the supercell traversed from NW to SE. Pictures courtesy from Dan Fitts, show upwards of 4.3" diameter hail occurred with these robust storms (Figure 4 and Figure 5).

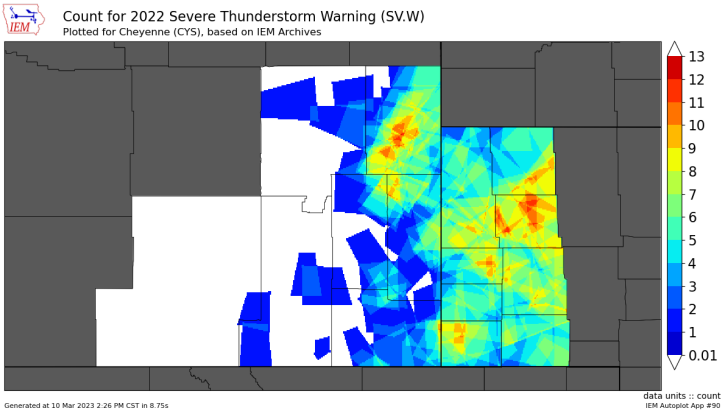


Figure 2. Severe Thunderstorm and Tornado Warnings

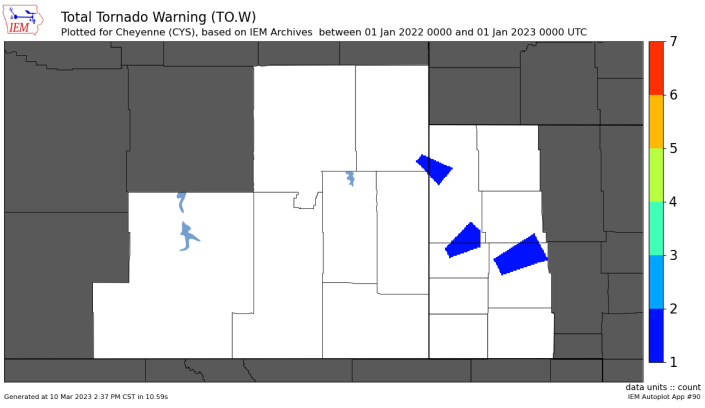


Figure 3. Tornado Warnings issued

Nebraska Panhandle - NWS Cheyenne, WY (continued...)

Figure 4. 4.3" Diameter hai that fell on July 5th

Figure 5. One of the storms that dropped the large hail on July 5th

Despite the slightly below average year from a warning number standpoint, each severe weather season still bring impacts to local communities. It is recommended individuals always have numerous ways to receive severe weather warnings through phones, apps, sirens, and others to take necessary safety precautions. Hail and high convective wind gust bursts can cause intense damage and place people at risk of injury or death. Staying aware in the day leading up to the severe weather event, to the day of, and hours before is important for planning. It's great to be prepared to help be more weather ready in case a storm knocks out power or worse. Develop a communication plan, possibly adjust plans during the impact timeframe that afternoon to evening, and know where the safest locations are in your home.

2023 could be more active then 2022 and it only takes one bad storm to impact you and your area for it to be a bad year. Stay plugged into NWS social media channels and our homepages for the latest on severe storm potential as we head into the new severe weather season. We'll be here 24/7/365 keeping you informed and as safe as possible.

2022 Nebraska Severe Weather Summary

Severe Weather Awareness Week | March 27 - 31, 2023

Extreme Southwestern Nebraska - NWS Goodland, KS

The 2022 severe weather season started off with a bang for Extreme Southwestern Nebraska. The first severe weather day occurred on April 22nd as a strong system brought high winds, a dust storm, and two rounds of severe weather that continued through the overnight hours. Wind gusts up to 82 mph were observed across Dundy, Hitchcock, and Red Willow counties. One major impact from the winds was the "Road 702" wildfire, which began in Northwest Kansas and traveled north into Red Willow and Furnas counties. The fire burned a 28 mile long area and a total of 44,024 total acres. Red Willow was estimated to have had roughly 28,000 acres burned and also saw temporary evacuations for the towns of Bartley and Indianola. Persistent blowing dust made fighting the fire difficult with personnel exceeding 100 people at times over the seven days the fire continued. The cause of the fire remains unknown at this time. Another grassfire impacted the town of Benkelman in Dundy County during this event, causing a temporary evacuation of the east side of the town along Highway 34. Fortunately, this fire was extinguished after a few hours without damage to any structures.

The month of May was fairly quiet with only 14 storm reports from thunderstorm winds, quarter sized hail, high winds, and two dust events. Near-zero visibility was observed during a dust storm on May 12th with zero accidents reported in the extreme southwest corner of the state.

June was a more active month with 33 storm events reported. To start the month, the region was impacted by back-to-back large hail events on the 4th and 5th. Red Willow County was hit by hail ranging from dime to tennis ball in size with winds gusting up to 66 mph on the 4th. The next day, two storms moved south over the region producing up to nickel sized hail in Dundy County. However, the most notable reports once again came from Red Willow County where hail up to the size of a grapefruit (4") fell just south of the city of McCook. The only tornado reported during the 2022 severe season was a brief landspout on June 24th north of Benkelman, Nebraska and just west of Highway 61. The landspout was rated an EF-Unknown (EF-U) as it stayed in open fields and no damage was observed.

The remainder of the severe season was fairly quiet with reports of thunderstorm wind gusts and small hail in the month of July. There was a wildfire called the "Mile Marker 26" fire that burned 720 acres in northern Red Willow County near Hugh Butler Lake from July 13th through the 27th. The fire burned a small shed near the cabin area of the lake; however, no other structural damage or injuries occurred.

Western & North Central Nebraska - NWS North Platte, NE

May 29, 2022-Giant Hail in Loup and Garfield Counties

"On the afternoon of May 29, 2022, a frontal boundary stalled across portions of north central Nebraska. Along this boundary, strong wind shear and increasing instability set the stage for thunderstorm development. Around 7:30pm, a lone thunderstorm formed along the boundary, in eastern Blaine County. This storm rapidly strengthened into a supercell, while marching eastward across northern Loup and Garfield counties. Just before 9pm, as the storm crossed Highway 183 north of Taylor, hail 6" in diameter was observed by storm chasers in the area, along with additional reports of hail greater than softball size (Figure 1.). Though the storm also showed signs of persistent and strong low-level rotation, no tornadoes were reported. The storm quickly lost strength after 10pm, dissipating in far southern Holt County. The primary hazard with this supercell was large to giant hail, and the 6" report was the largest hailstone observed anywhere in the United States in 2022.

Figure 1. Large Hailstones in Loup County on May 29th. Photo courtesy of Nick Stewart

2022 Nebraska Severe Weather Summary

Severe Weather Awareness Week | March 27 - 31, 2023

Eastern Nebraska and Southwest Iowa- NWS Omaha/Valley

May 12, 2022 Haboob and Derecho

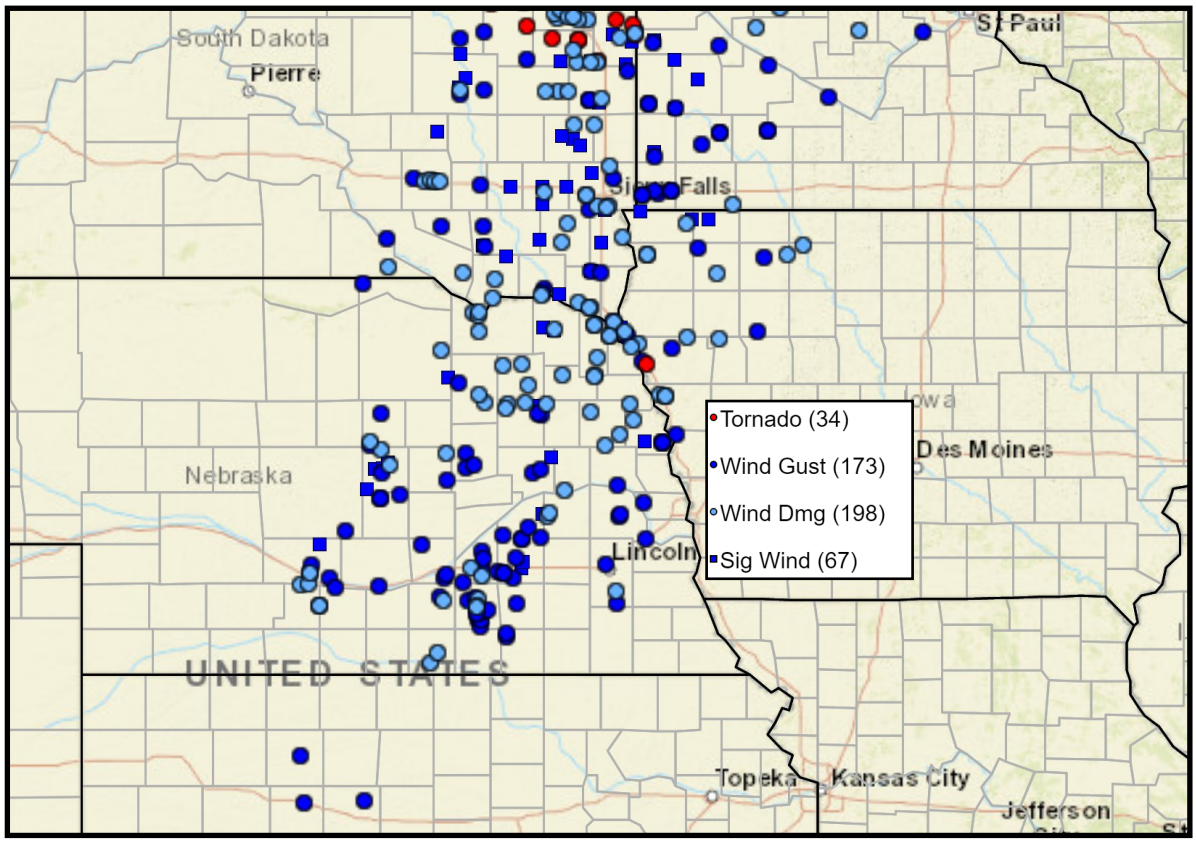


Figure 1. Map of the wind gusts and wind damage of the Haboob/Derecho event across central and eastern Nebraska on May 12, 2022.

A fast moving cold front generated two lines severe thunderstorms that produced damaging winds across central and eastern Nebraska .Central Nebraska was the developing grounds for a significant derecho that would propagate into the Northern Plains and Upper Mississippi Valley and go on to produce hundreds of measured severe wind gusts and wind damage reports, of which over 60 were considered “significant severe”. (Figure 1) Over 75 hail reports and nearly three dozen tornado reports were also reported, with the majority of tornadoes occurring in SD and MN. These lines also generated a thunderstorm-Induced dust storm, or “Haboob”. Visibilities on roadways were reduced to near zero with the blowing dust and numerous vehicle accidents took place on roadways in Nebraska, Iowa, South Dakota and Minnesota. The wind destroyed some buildings and grain bins (Figure 2), and flipped numerous center pivot irrigation systems, in northeast Nebraska. A 300 foot communications tower in Hartington, NE collapsed due to the damaging winds (Figure 3). A home weather station west of this tower reported 80 mph winds.

Eastern Nebraska and Southwest Iowa- NWS Omaha/Valley

May 12, 2022 Haboob and Derecho (continued…)

Figure 2. Grain bin which lost its cap and was pushed in by the intense winds on May 12th

Figure 3. The 300 foot communication tower that collapsed near Hartington

Eastern Nebraska and Southwest Iowa- NWS Omaha/Valley

June 11, 2022 Very Large Hail and Tornadoes

A couple of strong supercells developed in Saline and Gage counties producing very large hail in Beatrice. Numerous large hail reports were received with the largest being 5 inches. That 5-inch report was the largest ever transmitted by the Omaha/Valley office via a Local Storm Report (LSR). In addition to the hail, two tornadoes were confirmed. One near Blue Springs and another that developed near Wymore. The tornado that developed near Wymore was rated an EF1 that had a path length of approximately 4 miles. It tracked south across the Kansas border before dissipating in the Topeka service area.

Large hail that fell on June 11. Photo courtesy of Jason Thavenet

Eastern Nebraska and Southwest Iowa- NWS Omaha/Valley

June 14, 2022 wind Driven Hail

A cluster of supercell thunderstorms moved through the region during the evening of Tuesday June 14 into the early morning hours of June 15. The storms produced widespread wind gusts of 75 to 115 mph, hail up 1 to 3 inches in diameter, and two EF-1 rated tornadoes. The wind and hail combined to cause terrible damage in Seward County. Crops were destroyed to the extent that some fields appeared as if nothing had been planted in them despite being full and green prior to the storm. Numerous homes had their siding and windows completely destroyed and trees were debarked due to the wind driven hail. The hardest hit area was in a 2-to-7-mile wide (north to south) area extending from the York County line through 5 miles east of Seward and running along and south of Highway 34. The storms continued east across south central Nebraska and produced an EF-1 tornado in Cass County and another in Pottawattamie County. You can read more about the tornadoes and the event from the link above.

Wind-driven hail decimated the store front of the Wal-Mart on the south side of Seward. NWS photo.