

The Weather Whisperer

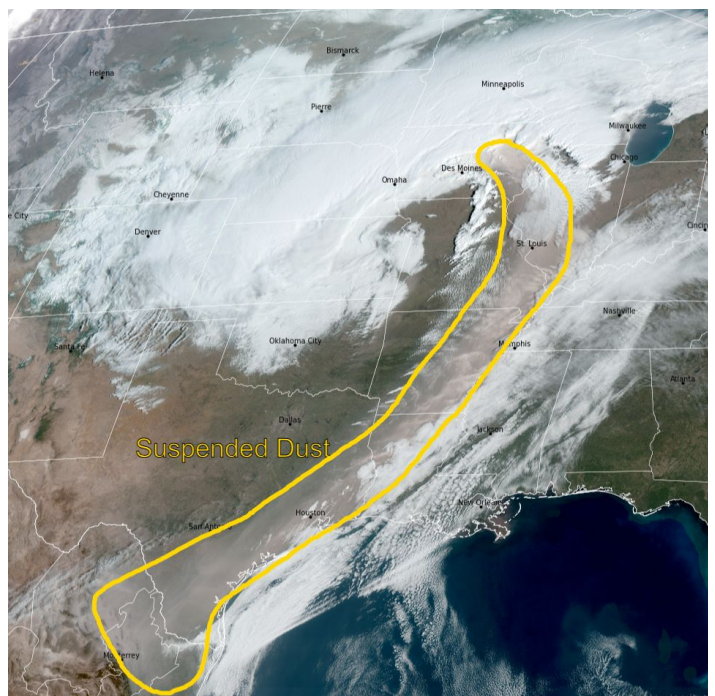
WHAT'S INSIDE?

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Blizzard, Thunderstorms, and...Dust?

Andrew Ansorge, Lead Meteorologist

Weather satellites can see many things from space such as fog, wildfires, and thunderstorms. At least three times this March, our weather satellites also have observed suspended dust and dirt amongst the clouds. This dust and dirt was lifted by gusty winds - associated with strong low pressure - over portions of the Desert Southwest, the southern to central Plains. As the low pressure moved northeastward, jet stream winds carried the dust over the Midwest. In the case of March 19, the dust and dirt created an orangish or brownish tint to the sky that some lowans observed. In addition, the dust
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Satellite imagery from 3/19/2025 with a dust plume (in yellow) from Texas to the Midwest. Click image to view larger.

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and dirt served as cloud condensation nuclei, or seeds, for raindrops and snowflakes to form on during the event. When the rain fell and dried, it left behind dusty spots on objects outside such as cars. The snow, too, had a brownish tint to it whether it was snow melting on the window or seen with the snowfall accumulation on the ground.



Brown sky and snow viewed in Thornton, IA. Photo credit: X user @Farmboy8655.

Active March 2025

Team NWS Des Moines

While the winter was fairly quiet, March has been quite active. The month began with an intense low pressure system that brought [strong winds and blizzard](#) conditions to central and western Iowa from late on March 4th into March 5th. Once rain transitioned to snowfall overnight, wind gusts of up to 68 mph created near whiteout conditions in many areas. This made travel nearly impossible, with multiple interstates and highways being closed due to the blowing and drifting snow. Snow drifts of 10 ft or more were reported, especially in rural areas.



Abandoned cars under feet of drifted snow uncovered by the DOT on 141 near Denison. Photo credit: Iowa DOT.



Power poles snapped northwest of Carroll, IA. Photo credit: Bill and Sue Schrad.

By mid-March severe storms took their turn as a broken line of thunderstorms produced numerous reports of severe winds from 60 to 80 mph across portions of central Iowa from about 4pm to 9pm on [March 14th](#). Several tractor trailers were blown over on Interstate 80, and another on US-20. Multiple 1" diameter hail reports were received with the largest report being golf ball sized, or 1.75". There was minor structural damage (roof damage) in several locations, trees downed, and power poles snapped near Knoxville and Carroll Iowa.

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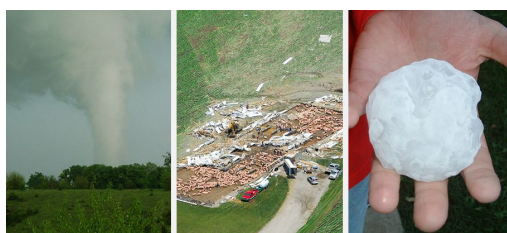
Days later another intense low pressure system brought strong winds and [blizzard conditions to northwest Iowa on March 19th](#). Early morning thunderstorms produced pea to quarter sized hail across central Iowa with small hail covering the ground in some locations. Northwest Iowa quickly transitioned over to snow, including thundersnow, with visibility and road conditions quickly deteriorating. Winds across the area, even outside the snow areas, gusted 45-55+ mph, including a 62 mph gust in Carroll. A band of 6-12"+ fell across northwest Iowa with heaviest amounts of 12-14" reported in Kossuth County.



Worsening conditions in Ledyard, IA on the morning of March 19, 2025. Photo credit Brian Burt.

Spotter Feature of the Month: Severe Thunderstorm

The spotter feature of the month series exists to highlight one or more phenomena each month to educate our spotters and Weather Ready Nation Ambassadors on various weather they may see and can [report to their local NWS!](#)



Tornado

Winds \geq 58 mph

Hail \geq 1 inch

NWS Criteria for a

SEVERE THUNDERSTORM

Click image to view larger

Thunderstorms are simply a rain storm during which you hear thunder. Lightning comes from thunder, so all thunderstorms also have lightning. But what makes a thunderstorm severe? **Severe thunderstorms** occur when one or more of the following criteria are met:

- Hail 1" (quarter size) or greater
- Winds gusting to 58 mph or greater
- A tornado

The NWS issues a **Severe Thunderstorm Warning** when a severe thunderstorm is about to occur or is happening so take shelter immediately!

Editor's Note - Due to staffing changes, the NWS Des Moines Weather Whisper newsletter has been suspended following this issuance.

On the Cover:

Satellite imagery shows the extent of a 200+ acre [grass fire in Poweshiek County](#) on 3/14/2025 in gusty winds. There were also at least 3 fires started by lightning that day (1 in Poweshiek Co, 2 in Crawford Co).



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