

# The Weather Whisper

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## DMX on the Road

Kristy Carter and Brooke Hagenhoff

The generally quiet and dry weather this month allowed many DMX staff to hit the road this September.

Four DMX meteorologists completed forecaster exchanges with two visiting NWS Quad Cities, IA/IL and two visiting NWS North Platte, NE. Both offices are two of the three offices which can provide NWS Des Moines with mutual aid (or receive mutual aid from NWS Des Moines) when needed, which occurred earlier this year when each office completed regular operational duties for NWS Des Moines in the days following May 21, 2024 so that DMX staff could be in the field surveying tornado damage. The forecaster exchanges allow offices to become more familiar with day to day operations within each office to facilitate a seamless transition of operations from office to office in case of mutual aid needs. The visits also encourage idea sharing and help foster relationships with the staff in each office. The DMX staff wish to thank NWS Quad Cities and NWS North Platte for their hospitality and are grateful to have had the opportunity to visit and work with the staff in each office!

*Image Captions: **Top Right:** Brooke and Kristy with several staff from NWS Quad Cities. **Bottom Right:** Dylan launching a weather balloon while at NWS North Platte with Craig.*



*Click images to view larger.*

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On September 4-5, Jeff Zogg, Senior Service Hydrologist, visited the North Central River Forecast Center (NCRFC) in Chanhassen, Minnesota with forecasters from NWS La Crosse, WI. NCRFC is responsible for river forecasts in the Mississippi River drainage portion of the NWS Des Moines service area. During his visit, Jeff spent time with NCRFC staff going over various functions including hourly rainfall estimates, forecast rainfall, the river forecast process & snow water equivalent measurements. He also spent some time talking with NCRFC staff about challenges surrounding the June 2024 record flooding in northwest Iowa. NCRFC is co-located with the NWS Twin Cities, MN weather forecast office allowing Jeff to visit with forecast staff while in Chanhassen as well. Although Jeff has visited NCRFC several times before he always learns something new with each visit.



Above: North Central River Forecast Center and NWS Twin Cities office in Chanhassen, Minnesota. NWS photo.

Below: Forecasters from FSD, MPX, ARX, and DMX at a joint office meetup.



Towards the end of the month, NWS Des Moines sent 4 forecasters to Albert Lea, MN for a joint office meetup between NWS Des Moines (DMX) and our three NWS neighbors to the north: NWS Sioux Falls (FSD), NWS Twin Cities (MPX), and NWS La Crosse (ARX). During the meetup, forecasters were able to build relationships between offices and discuss many topics related to day to day operations and how to best support one another. We often work with one another collaborating the forecast or warnings/advisories near to along our county warning area (CWA) boundaries, but rarely get an opportunity to put faces with names! The meetup was a great success after 9 months of planning that also required a reschedule due to hazardous weather!

## Fall Fire Weather Season

Ashley Bury, Meteorologist

It's that time of year again: Fall Fire Weather Season. Compared to this time last year, where widespread drought, especially over eastern Iowa, covered the state (see image next page), drought conditions to start out the 2024 fall fire weather season are drastically different. Only pockets of D1 (Moderate Drought) can be found in the state as of 9/24, with abnormally dry conditions present across much of the rest of the state (see image next page).

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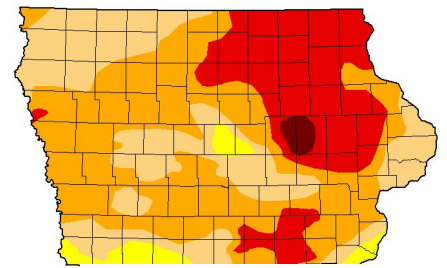
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Despite the dry conditions, fuels (such as grasses and crops) are not as cured as they were at this time last year, which has resulted in a later start to the season. However, with fuels gradually becoming more cured over the next several weeks through the fall season, fire weather will generally be more of a concern, especially if favorable weather conditions for burning are realized. These weather conditions include warm temperatures, breezy winds, and low humidity values.

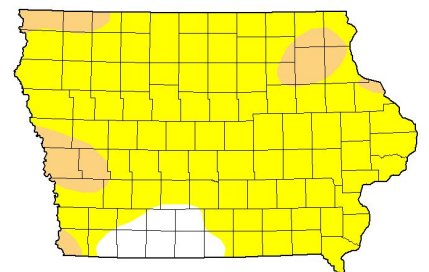
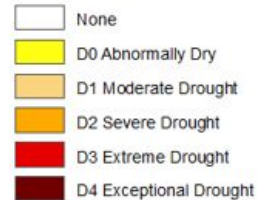
With these things in mind, it is important to stress that anyone can practice fire prevention by following the safety tips below, as applicable:

- Keep grills clean and away from materials that are flammable.
- Watch over active campfires, and extinguish them properly before leaving.
- Avoid burning leaves and brush.
- Do not throw cigarette or cigar butts on the ground.

Geared more towards farmers, fire prevention can be practiced by frequently cleaning harvesting equipment of any debris that could cause a fire to start and spread.



Intensity:



Iowa drought conditions in late September 2023 (*top map*) compared to drought conditions in late September, 2024 (*bottom map*). Significant differences are noted, with Severe to Exceptional Drought across much of the state in 2023, versus mainly Abnormally Dry and a few Moderate Drought areas this year.

## Goodbye to Meteorologist Allan Curtis

After almost exactly 10 years living in the Des Moines area and as part of NWS Des Moines, Allan Curtis and his family moved to the Kansas City area earlier this summer as Allan accepted a Lead Meteorologist position with NWS Kansas City. Allan says:

*“As a Nebraskan born and raised, I never really pictured myself living in, let alone missing, Iowa. Life is funny and ironic though. I cannot speak highly or fondly enough of the NWS Des Moines office. Through times of short staffing, full staffing, good weather, bad weather, weird weather and everything else over the past 10 years, everyone was kind, welcoming, and there for each other, regardless of job position or tenure: A true ...*

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*...work family. The professional and personal growth opportunities were countless and wide ranging. And the weather ... oh boy, the weather ... I was able to experience and help provide services during major weather events such as the June 30th, 2018 Des Moines Major Flash Flooding, July 19th, 2018 Marshalltown and Pella EF-3 tornadoes, August 10, 2020 Derecho, December 15, 2021 Derecho, May 21st, 2024 Greenfield EF-4 tornado and larger outbreak, and multiple major blizzards. The Des Moines metro and larger area will always be a special place in mine and my family's life too. My wife (Hannah) and I met and got married here and welcomed two beautiful children. We'll miss gems like the Downtown Des Moines Farmers Market, Iowa State Fair, and the numerous festivals and activities. Most of all, Hannah and I will cherish all of the connections and lifelong friendships we were fortunate enough to build during our time in Iowa. Thank you for everything Iowa! And who knows, maybe it is 'see you later', not 'goodbye'..."*

The NWS Des Moines staff thanks Allan for his service and wishes him the best of luck in his new role.

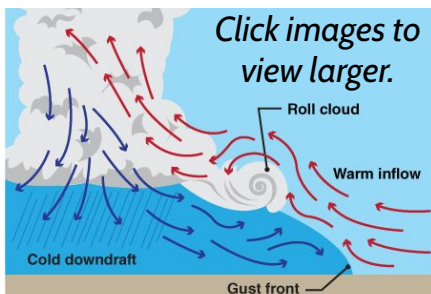
# Spotter Feature of the Month: Shelf Cloud

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!](#)



Above: Shelf Cloud in Earling, IA July 7, 2016.  
Photo courtesy of Willard Sharp.

Below: Shelf cloud diagram from [NOAA Scilinks](#)



## Shelf Clouds

Shelf clouds are long, flat clouds along the front of a storm resembling a shelf. They are caused by winds surging out from a storm and are associated with sinking, rain-cooled air making them **slope down, away from the rain** (see diagram bottom left). Shelf clouds can be mistaken for funnel clouds or wall clouds but they are much larger than wall clouds and any rotation would only be in the horizontal (think a rolling pin) and not in the vertical. As such, shelf clouds are frequently associated with squall lines but NOT tornadoes. Strong, straight-lined thunderstorm winds often occur just behind the passage of a shelf cloud.

On the Cover:

Northern Lights as seen in Winterset, IA, on May 10, 2024. Photo courtesy of Madison County Emergency Management. Read more about the aurora event on our recently released [event webpage](#), which includes the science of auroras



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