



NATIONAL WEATHER SERVICE GREEN BAY

PACKERLAND WEATHER NEWS

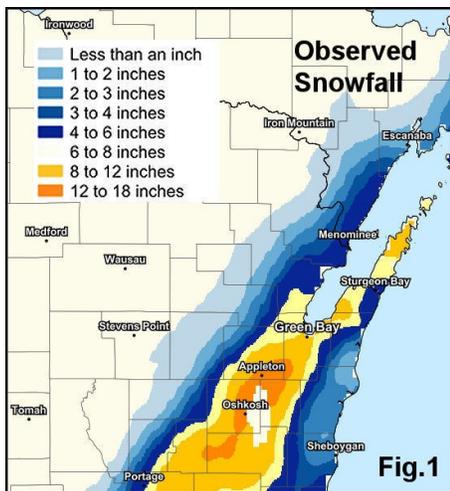
Winter 2023/2024
Volume 21

THE EDGE OF PREDICTABILITY – THE MARCH 2023 HEAVY SNOW BAND

BY: GENE BRUSKY, SCIENCE AND OPERATIONS OFFICER

Inside this issue:

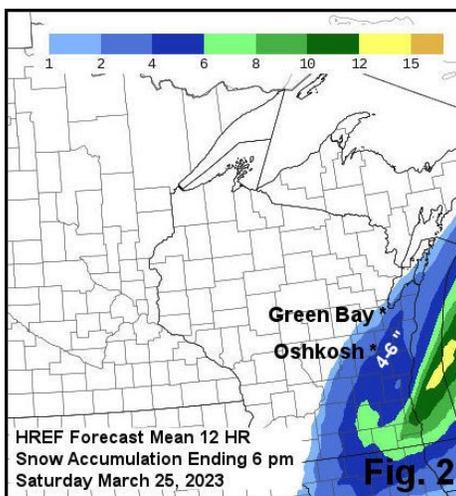
Winter 23/24 Outlook	3
Drought Update	4
Pallet Fire—July 10	6
Modernized AFD	7
COOP Awards	8
Quiet Severe Weather Season	10
Warning Criteria for Snow	10
New NWS GRB Staff	12
NWS GRB Farewells	13
NWS GRB Gives Back	14
Weather Names Word Search	15



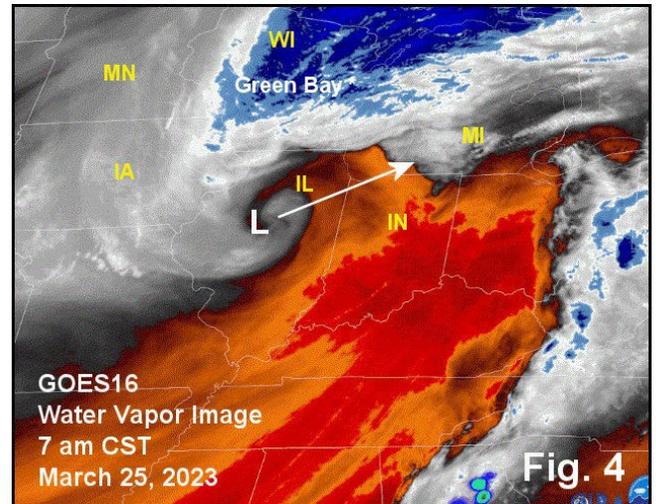
One of the most challenging winter weather scenarios National Weather Service (NWS) meteorologists face is when model forecast guidance suggests an area will be near the northern edge of a developing winter storm and/or the heavy snow will be associated with a very narrow snow band. Unfortunately, northeast Wisconsin experienced such a situation on March 25, 2023, when a narrow band of very heavy snow developed rapidly on the northern edge of a winter storm that moved from the mid-Mississippi Valley to lower Michigan. The event was characterized by a 30-mile-wide band of heavy snow accompanied by snowfall rates of 2-4 inches/hour! In just 6

hours, 15 to 20 inches of snow had fallen by mid-day, generally along the I-41 corridor from Fond du Lac to Appleton to Green Bay (Figure 1).

In the days leading up to the event, model guidance was rather persistent in forecasting the heaviest snowfall to pass to the southeast of the I-41 corridor. An example of one such forecast is shown in Figure 2, where the High-Resolution Ensemble Forecast (HREF) model just 12 hours prior to the event, was still forecasting the axis of heaviest snow to impact the corridor from southeast Wisconsin to lower Michigan (note the dark green & yellow colors [10-15 inches] in Figure 2). Meanwhile, east-central Wisconsin was forecast to receive maximum snowfall amounts of about



(continues on page 2)



4-6 inches (dark blue color). Also, note the very sharp gradient in the forecast snowfall along the I-41 corridor with areas just to the west forecast to receive little or no snowfall. As you can see, even a relatively small shift of only 20-30 miles in the axis of heaviest snow can have significant implications. So, what happened?

During the early morning (prior to sunrise) of Saturday, March 25, radar detected a rapidly developing and very narrow band of strong radar reflectivities (circled area in Figure 3) that formed west of the primary system precipitation area (over western lower Michigan). This separate and distinct area of strong radar returns over east-central Wisconsin was the result of very strong mid-level convergence and frontogenetic forcing that was poorly resolved by the standard suite of numerical forecast guidance. By the time the higher resolution model guidance was able to latch on to this signal, it was too late, as very heavy snowfall was already impacting the I-41 corridor south of Green Bay by 6 am. In fact, by 9 am, several reports of 8-12 inches were relayed to the Green Bay Forecast Office, suggesting snowfall rates of 2-4 inches per hour! By early afternoon, the snow band waned and moved off to the east, leaving a narrow swath of heavy wet snow. This surprise early spring snowstorm resulted in several daily snowfall records, including at Green Bay and Appleton.



South side of Oshkosh
Photo courtesy of Kristine Lubenow

DID YOU KNOW???

We are on Facebook & Twitter. Check us out!



WINTER 2023-24 OUTLOOK: MODERATE EL NIÑO TO CONTINUE

BY: ROY ECKBERG, METEOROLOGIST

A strong El Niño will continue this winter (December-February), with an 80% chance of El Niño conditions continuing into the spring (March-May). The El Niño is expected to weaken by early summer and continue weakening to neutral conditions (60% chance) through the fall (Figure 1). The water temperature anomalies across the equatorial Pacific Ocean, between Hawaii and Mexico, can have a significant impact on winter temperatures across Wisconsin and the Upper Midwest. During an El Niño winter, there are typically less intrusions of arctic air from Canada, as the subtropical jet stream across the southern United States is stronger than normal, while the polar jet is shifted to the north (Figure 2). This compares to a La Niña pattern (Figure 3) where the polar jet stream shifts northward towards Alaska and then dives southeast across western North America, supporting more arctic outbreaks. It should be noted, every winter since 1887-88 has recorded at least 4 days of subzero temperatures at Green Bay. Thus, there will be at least a few days of sub-zero temperatures this winter, but more likely less than normal.

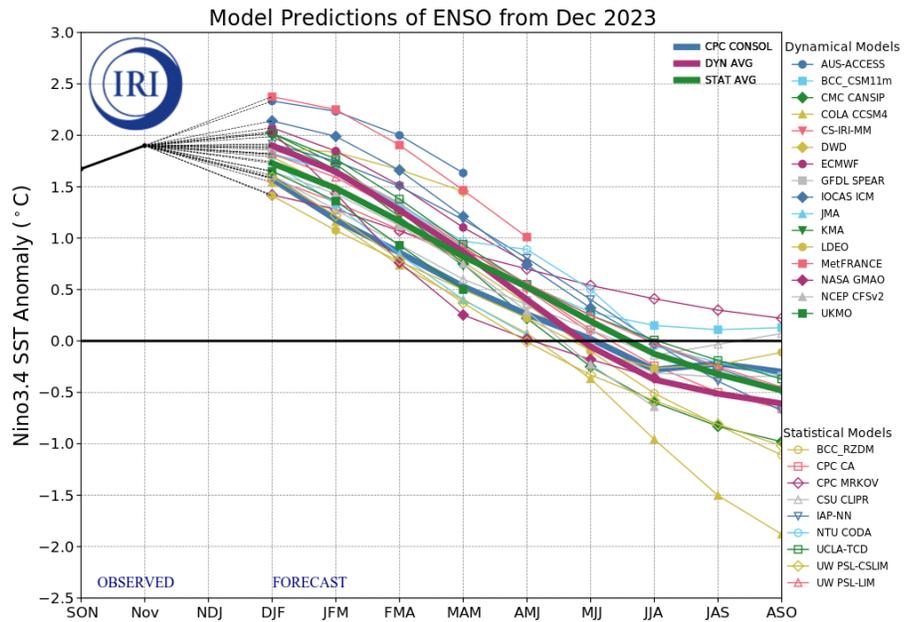


Figure 1—Model Predictions

(continues on page 4)

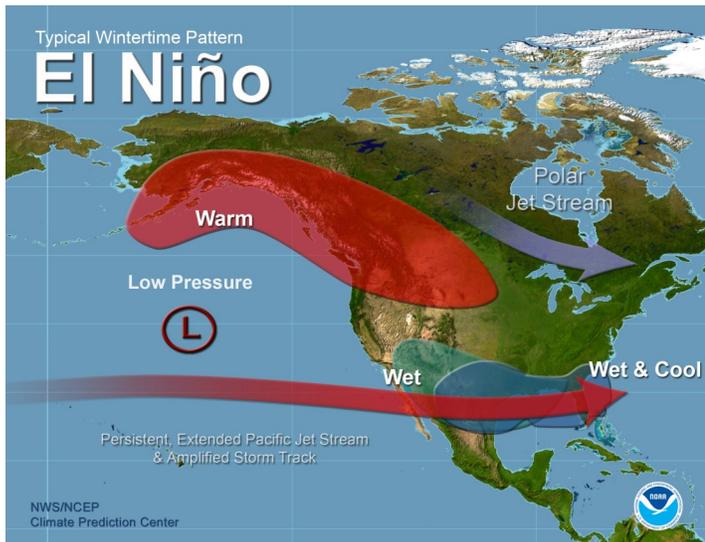


Figure 2 — Typical El Niño Pattern

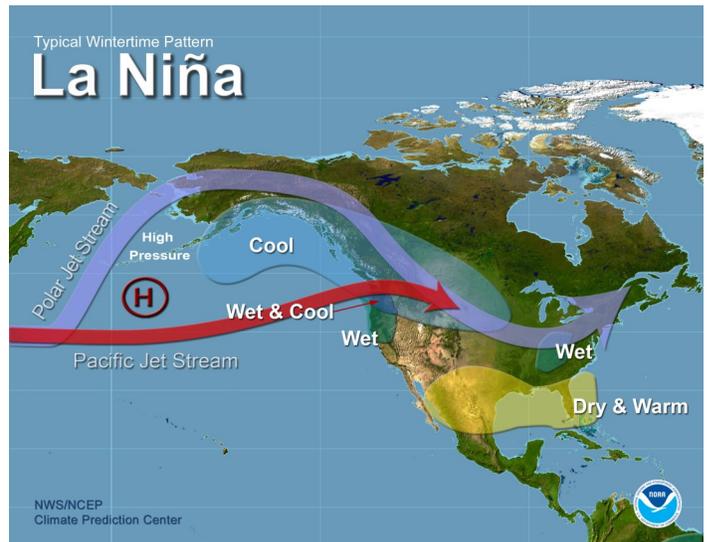


Figure 3 — Typical La Niña Pattern

For the rest of the winter, climate forecasts from the Climate Prediction Center (CPC) are indicating a greater chance of above normal temperatures across Wisconsin and across much of the northern and western United States (Figure 4). Looking at the 12 previous strong or moderate El Niño events since 1950, 8 out of the 12 events (67%) ended up warmer than normal at Green Bay. The climate models are forecasting around a 77% chance of temperatures averaging near or above normal. That also means there is only around a 23% chance of below normal temperatures at Green Bay, Rhinelander, and Wausau this winter!

Drier than normal conditions are favored into early spring with the latest CPC forecast showing a 45% chance for drier than normal conditions, a 33% chance for near normal, and a 22% chance of wetter than normal conditions across northeast Wisconsin (Figure 5). However, wetter than normal conditions are expected across the southwest and southeastern portions of the United States. Looking at all 25 El Niño events since 1950, there were no real strong signals on what to expect for precipitation totals for the winter. At Green Bay, 11 winters ended wetter than normal (44%), 3 winters were near normal (12%), and 11 winters experienced below normal precipitation (44%). However, there was one strong signal regarding snowfall. But, of the 12 moderate to strong El Niño events, none of them ended snowier than normal! The most plausible reason for this outcome is the milder temperatures bring more mixed precipitation events of rain, sleet, freezing rain, and snow compared to a normal winter.

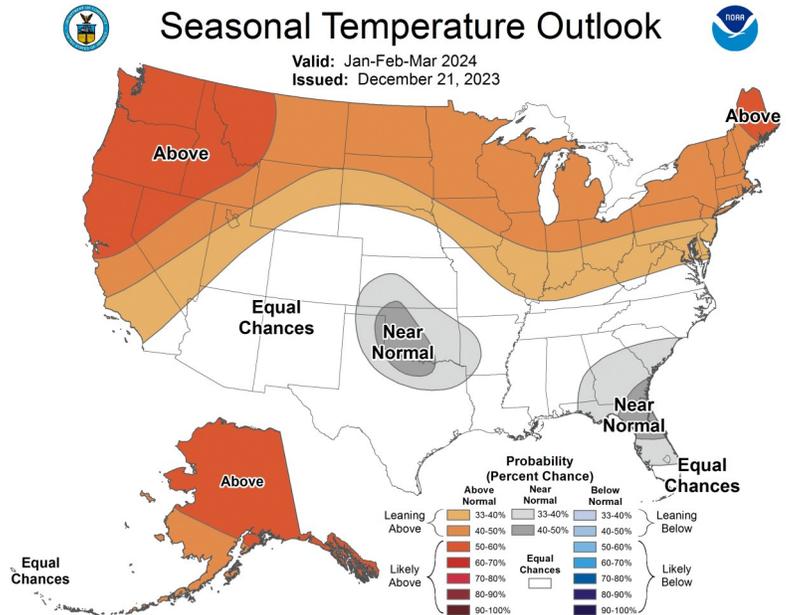


Figure 4—Temperature Outlook (Climate Prediction Center)

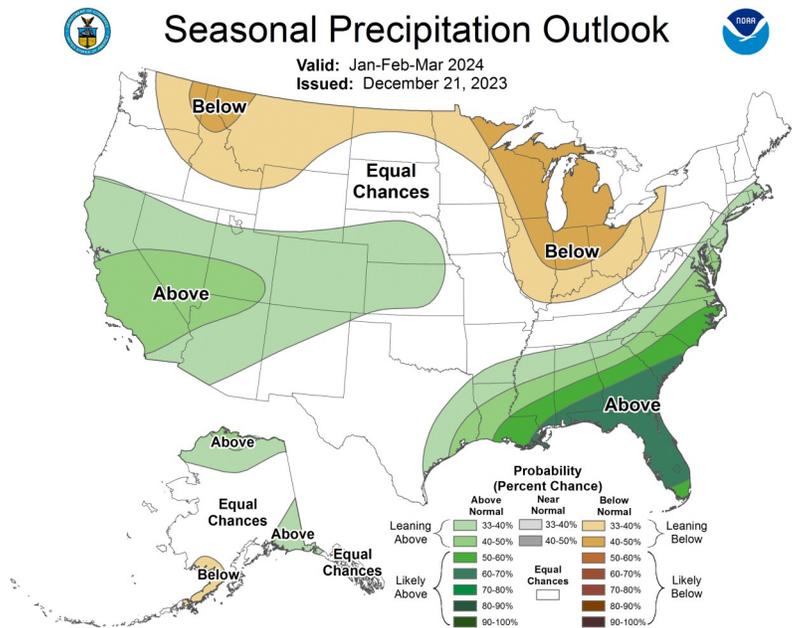


Figure 5—Precipitation Outlook (Climate Prediction Center)

Remember to visit www.weather.gov/grb for the latest watches, warnings, statements, and forecasts.

DROUGHT REPORTED ACROSS NORTH-CENTRAL AND NORTHEAST WISCONSIN

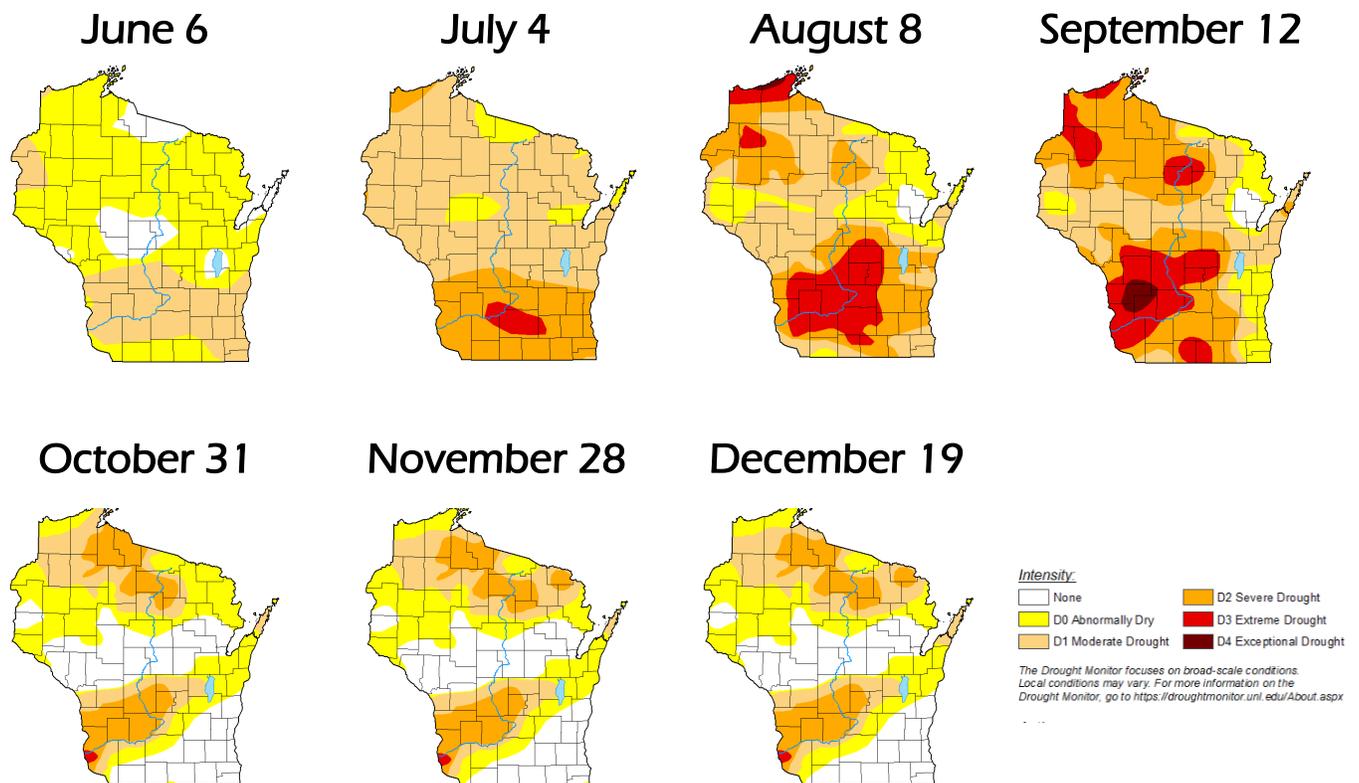
BY: ROY ECKBERG, METEOROLOGIST

In 2018 and 2019, many locations across north-central and northeast Wisconsin experienced some of the wettest years on record. Lake Michigan recorded its highest level on record in 2020.

Now, turn to 2023. The year started out with little snow and below normal precipitation in January through the middle of February. The weather pattern abruptly shifted to a wetter and snowier pattern during the latter half of February into the middle of April. The weather pattern then flipped back to drier than normal conditions in May and June. Precipitation totals for the month of May and June were well below normal across much of the region. This resulted in Abnormally Dry (D0) to Moderate Drought (D1) conditions to develop in June. Over the remainder of the summer, scattered thunderstorms brought some much-needed rain, but not enough to prevent worsening drought conditions. In July, the far north was very dry with rainfall amounts just over an inch in parts of Vilas County.

Between August and September, central and east-central Wisconsin experienced the worst drought conditions with Extreme Drought (D3) across Waushara, western Winnebago, and southern portions of Waupaca and Portage counties. Later in September, the heavier rain missed portions of north-central Wisconsin, resulting in Extreme Drought (D3) in northern Lincoln, northwest Langlade, and much of Oneida counties. Since the record wet years of 2019-2020, Lake Michigan has fallen nearly 2 and a half feet as yearly precipitation totals have fallen to or below normal. Finally, a drenching rain in late October, brought an end to the Severe Drought (D2 or greater) across portions of central and east-central Wisconsin, with some improvement in the drought conditions across the north.

For the latest drought information, please visit: <https://droughtmonitor.unl.edu/>.



PALLET FIRE NEAR COLOMA - JULY 10, 2023

BY: TIM KIECKBUSCH, LEAD METEOROLOGIST

Most of Wisconsin's wildfires occur during a short period in the spring; after the winter snow has melted, but prior to green-up. This typically occurs from late March through mid-May, when dead grasses and other fine fuels are readily available to ignite. The largest fires usually occur on dry (low relative humidity), windy, and warm days during this peak springtime period. Fire activity drops off quickly after green-up in late spring, and is usually minimal during the summer due to higher humidity and frequent rainfall from thunderstorms. One notable exception is during periods of moderate to extreme summertime drought, when potential for large fires can be rekindled.

Several significant statewide droughts have occurred in Wisconsin in the past; in 1895, 1910, 1930-36 (the "Dust Bowl"), 1948, 1958, 1963, 1976-77, 1988, and 2012. Large summertime fires have occurred in association with many of these droughts. For instance, in July 1910, an area 50 miles

long by 40 miles wide burned near Chippewa Falls, resulting in three fatalities and 300 persons rendered homeless. In more recent years, large summertime or early fall fires occurred in conjunction with the droughts of 1976 and 1988.

On July 10th, 2023, central Wisconsin was in the midst of a moderate drought, and forecasts called for high temperatures in the lower 90s, relative humidity as low as 25 to 30 percent, and southwest winds gusting to 25 to 30 mph. A burn from a previous day, which had not been fully extinguished, reignited on private property southeast of Coloma. The "Pallet Fire" quickly got out of control shortly after 1 pm, and eventually burned 714 acres in western Waushara County. The fire was large enough for the smoke plume to be easily seen on visible satellite imagery (Figure 1) and the NWS GRB radar (Figure 2). The efforts of 418 firefighting personnel from the Wisconsin Department of Natural Resources and several local fire departments helped save 133 structures in the path of the fire. However, eight firefighters suffered minor injuries, and 19 structures were eventually lost to the flames. Law enforcement and fire suppression costs were billed to the landowner who allowed the fire to escape control.



Pallet Fire near Coloma — courtesy WI DNR

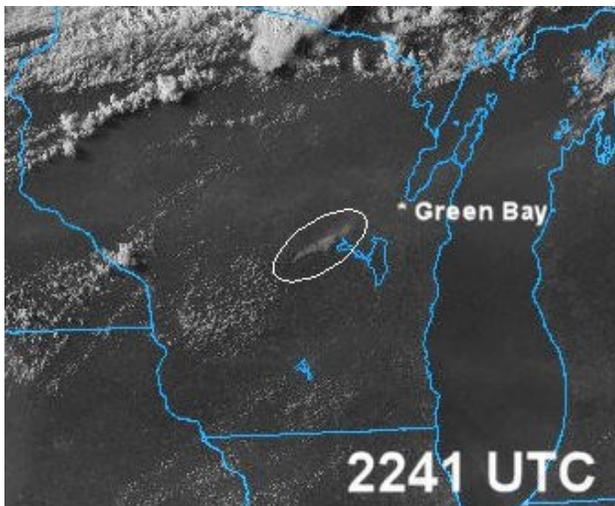


Figure 1 — Visible satellite image showing smoke plume

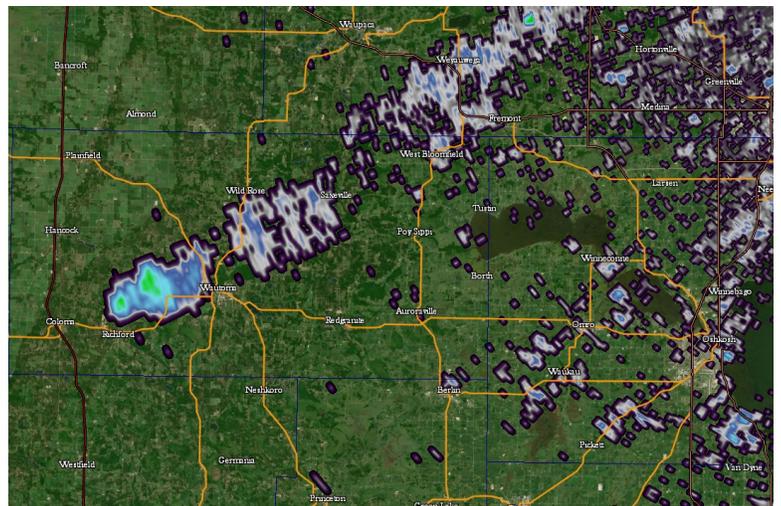


Figure 2 — Radar image showing smoke plume

MODERNIZED AREA FORECAST DISCUSSION

NWS Green Bay transitioned to a new Area Forecast Discussion (AFD) format in late 2023. The AFD is an effective means to communicate expert knowledge possessed by NWS meteorologists. It will now focus on meteorological reasoning associated with a range of potential outcomes rather than just describing the “most likely” forecast. Our partners make better decisions knowing not only that there is forecast uncertainty, but also what the reason is for said uncertainty. Probabilistic communication is about having the meteorologist address the spectrum of outcomes and their probability of occurrence (i.e., explaining the reason for the uncertainty). The AFD is broken down into 3 main sections: Key Messages, Short/Long Term Discussion, and Aviation Discussion. Optional sub-sections addressing fire weather and marine concerns may also be included.

To read the latest AFD, please visit:

<https://forecast.weather.gov/product.php?site=GRB&issuedby=GRB&product=AFD&format=CI&version=1&glossary=1>

Key Messages:

Key messages are plain language summation of relevant weather, water, and climate information ongoing or expected in the forecast area. Key messages are great for:

- * Differentiating challenges and/or uncertainty in the forecast
- * Addressing what you need to know
- * Acting as a force multiplier on your agencies social media accounts as they are easy to understand and communicate
- * Focusing on impacts
- * Providing a historical account of a potential outcome

Example Key Messages: Precipitation is looking more likely (greater than 70%) this weekend. Localized heavy rainfall could lead to minor street flooding and rises on small creeks and streams. The risk of widespread flooding is low (less than 10%).

Short/Long/Aviation Discussions:

Even though the AFD is a scientific document, it will be written in plain language. The AFD will help end users make better decisions by:

- * Detailing potential outcomes and probabilities
- * Providing scientific reasoning behind forecast decisions
- * Focusing on potential weather risks (impacts + probability)
- * Including a numeric translation for verbal probability expressions used

Example AFD Content: probabilities of heavy snow are notable as a result, with the current chance for 6+” of snow in the 20 to 40% range for the period from next Tuesday through Friday. There is also about a 20% probability for high-end snow amounts over a foot.

Updates/Optional Sections:

When the NWS needs to discuss potential impacts, outcomes, and/or technical details on current and expected mesoscale evolution (such as thunderstorms in the next 6 hours), NWS meteorologists will update the AFD with a “Mesoscale Discussion” or “Update” section. Update Mesoscale Discussion can help you make decisions by:

- * Providing updates when forecast messaging changes in-between regular AFD issuances
- * Highlighting changes with potential impacts on the current and expected temporal evolution of a weather event

Optional AFD sections include “Marine”, “Fire Weather”, “Climate”, and “Hydrology”. These optional sections will contain the same probabilistic and impact-based writing style, but the emphasis is placed on the specific forecast information to specialized partners.

2023 COOP AWARDS

25 YEARS



Rob Anderson
Phelps Sanitary District

25 YEARS

PICTURE
COMING
SOON

Jeff Tienor
Suring Waste Water
Treatment Plant



Six Basic Steps for Properly MEASURING SNOW

Accurate and timely snowfall measurements are extremely important to your National Weather Service office, your community, local media, and many others. Here are the six steps you need to know for measuring snow:

- 1 Supplies**
Ruler or yard stick
24" X 24" white board, flag
- 2 Planning**
Find an open area away from tall objects, but sheltered from wind
- 3 Set-up**
Set up before snow begins
Put your board out and mark it with the flag
- 4 Measuring Snow**
Record your total to the nearest tenth of an inch
Wipe the board off after measuring
Measure once daily at the same time, after measuring place the board on top of snow
- 5 When Snow Stops**
Measure as soon as the snow stops to avoid lower totals due to melting, settling and drifting
- 6 Reporting**
weather.gov social media
SEND us your report!

THANK YOU COOP/UCOOP/COCORAHS OBSERVERS!

BY: SCOTT CULTICE, OBSERVATION PROGRAM LEADER & SCOTT BERSCHBACK, LEAD METEOROLOGIST

Happy 2024!

Everyone at NWS Green Bay would like to personally thank each of you for your dedicated snow measuring through the years! Your timely, and accurate measurements allow us to provide better service to our partners and the public, and in some cases, immediate life-saving action. Your observations also help provide important data for research that leads to advances in life-saving technology.

As we push through another winter season, you can find many helpful reminders on measuring snow/ice and water equivalent here:

Slide Shows: https://www.cocorahs.org/Content.aspx?page=training_slideshows

Videos: <https://www.youtube.com/user/cocorahs>

Have a healthy and safe 2024! If you have any questions, please send us an e-mail or give us a call. Thanks again!



WANT TO BECOME A WEATHER OBSERVER?

For information on COOPs, CoCoRaHS, and SKYWARN, please visit: <https://www.weather.gov/about/observations>

For information on mPING please visit: https://www.weather.gov/ppg/tt_2



How to send in your

Weather Report

Become a "citizen scientist" by reporting what type of precipitation or weather is occurring where you are to the National Weather Service

IT'S FREE

Search and download the free mPING app via your app store

IT'S FUN

Observe and report (to NWS) the type of precip at your location

IT'S EASY

- 1) Open the mPING app
- 2) Tap "Select Report Type"
- 3) Choose from the list
- 4) Tap "Submit Report"

More info on mPING can be found at <https://mping.nssl.noaa.gov>

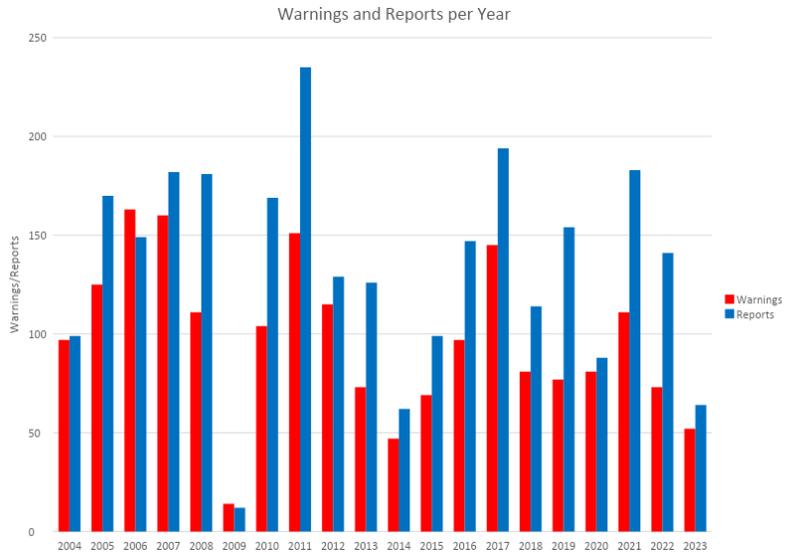
NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NORTHEAST WISCONSIN EXPERIENCES QUIET SEVERE WEATHER SEASON

BY: PHIL KURIMSKI, LEAD METEOROLOGIST

If you felt the summer of 2023 was a quiet year for severe weather in northeast Wisconsin, you were not imagining things. For the year of 2023, the National Weather Service office in Green Bay issued only 52 Severe Thunderstorm Warnings and 0 Tornado Warnings. This is the third lowest amount of warnings we have ever issued as an office behind 2014 (46 Severe Thunderstorm and 1 Tornado) and 2009 (14 Severe Thunderstorm and 0 Tornado). Since 1995, the NWS in Green Bay typically issues 98 Severe Thunderstorm and Tornado warnings per year, with the most number of warnings being 163 in 2006.

The 2023 convective season for northeast Wisconsin recorded 64 severe reports, which included severe hail, severe thunderstorm wind gusts, and one tornado. This was once again the third lowest amount of reports observed in northeast Wisconsin behind 2014 (62 reports) and 2009 (12 reports). Since 1995, northeast Wisconsin typically experiences 136 reports per year, with the highest amount occurring in 2011 with 235 reports.

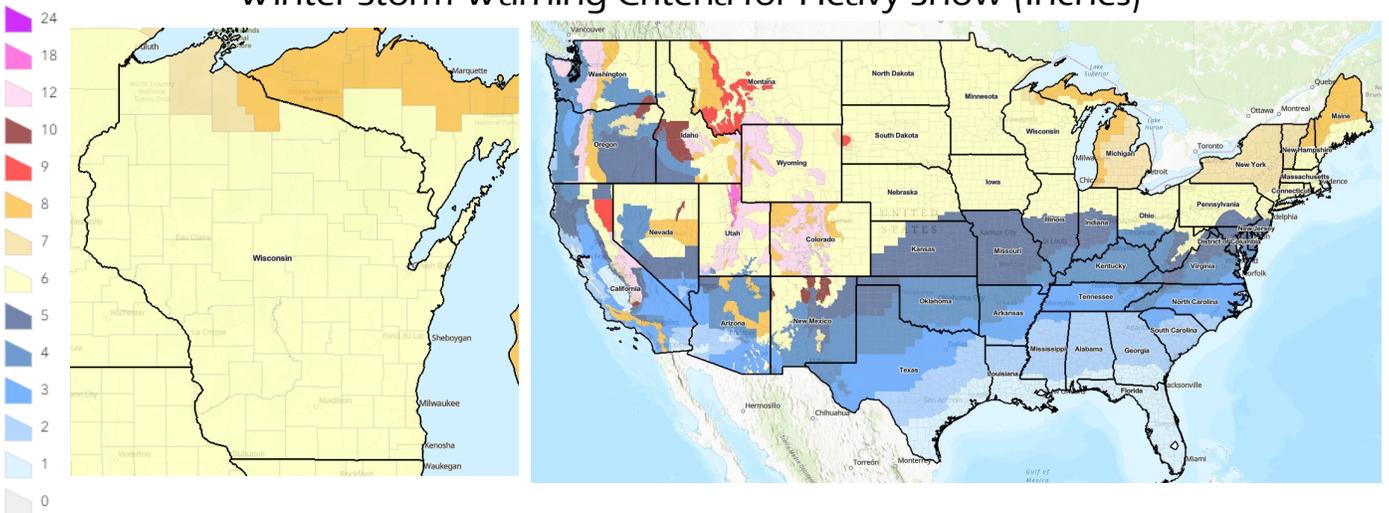


WARNING CRITERIA FOR HEAVY SNOW

In the Contiguous U.S., warning criteria thresholds for heavy snow, measured in inches, have been updated to serve as the basis for Winter Storm Watches and Warnings. The updates were made to improve decision support services, collaboration, and communication. For all of northeast Wisconsin, the threshold is 6 inches. However, across northwest Wisconsin and Upper Michigan, the threshold is 7 and 8 inches (see map).

There is an interactive heavy snow criteria map that is centrally updated and managed, allowing users to easily find their local criteria. It is important to note that warning issuance is not solely based on the amount of snow, but also the expected impacts. You can view the heavy snow criteria map at: [weather.gov/snow/criteria](https://www.weather.gov/snow/criteria).

Winter Storm Warning Criteria for Heavy Snow (Inches)



NWS GREEN BAY PROVIDES WEATHER SUPPORT TO CORE PARTNERS DURING EAA AIRVENTURE

BY: RICH MAMROSH, LEAD METEOROLOGIST & KURT KOTENBERG, WARNING COORDINATION METEOROLOGIST

NWS Green Bay has provided weather support for public safety operations during the world’s largest airshow since it moved to Oshkosh in 1971. This support has increased in recent years. Along with remote support and monitoring from NWS Green Bay, we have enhanced our services by dedicating an onsite meteorologist to provide impact-based decision support services (IDSS) for public safety operations at EAA AirVenture.

The NWS onsite IDSS includes providing a formal weather briefing to our core partners- who consist of representatives from Winnebago County Emergency Management, Winnebago County Sheriff’s Department, FAA Air Traffic Control, and others. These weather briefings help our partners ensure the safety of pilots and spectators on the grounds.

Additional meteorologists at the NWS Green Bay forecast office provide remote support to our FAA partners in the form of Terminal Aerodrome Forecasts for Wittman Field. Further, NWS meteorologists at the Center Weather Service Unit in Aurora, Illinois, provide the FAA with advisories for icing, turbulence, and thunderstorms.

NWS Green Bay meteorologists also provide learning opportunities for visitors at AirVenture, with aviation weather presentations to pilots, and radio interviews. Meteorologists from the Aviation Weather Center in Kansas City also staff an interactive booth in the Federal Pavilion, with assistance from several local NWS offices.



.....

NWS GREEN BAY STAFF PROMOTIONS!

Congratulations to Ed Kindred on his promotion to Electronic Systems Analyst in November! Ed joined the NWS Green Bay team as an Electronic Technician in 2006. He is excited to take a managerial role in the office, while continuing to work diligently to keep all of the computer, radar, weather radio, and other systems up and running.

Congratulations to Scott Berschback on his promotion to Lead Meteorologist in February! Scott joined the NWS Green Bay team in 2008 as a Meteorologist Intern. He is looking forward to taking bigger roles in the hydrology and observation programs in 2024.

Congratulations!

NATIONAL WEATHER SERVICE GREEN BAY WELCOMED TWO NEW EMPLOYEES THIS FALL

BY: KIRA JESSE, METEOROLOGIST

Jillian Goodin (pictured left) joins us from her home state of Michigan. She received her B.S. in Meteorology from Central Michigan University, and her M.S. in Geography with a Meteorology major from Northern Illinois University. Her graduate school studies focused on predicting severe hail in thunderstorms. Jillian is new to Wisconsin and looking forward to exploring Door County. She also loves being in the Great Lakes area and close to Lake Michigan. Jillian's interests outside of work include exploring nature, reading, and seeking out local coffee shops.



Gus Kaiser (pictured right) is a Wisconsin native, and obtained his B.S. in Atmospheric Science from the University of Wisconsin-Milwaukee. He spent the past two years working in air quality forecasting and analysis for the state of Texas. Gus is happy to be back in his home state and loves the snow and cold weather. Gus is new to the Green Bay area and is looking forward to exploring Door County, attending Packers games, and going fishing on Lake Michigan. In Gus' free time, he likes running, bicycling, cooking, and tending to his plants.

Welcome Jillian and Gus!



NWS GREEN BAY FAREWELLS

BY: REBECCA KRUK, METEOROLOGIST

After 35 years and 8 months of federal government service, Jim Skowronski retired from the National Weather Service in late April.

Skowronski originally thought about studying entomology while growing up, but it was the winter storm of April 9, 1973, when his fascination with weather began.

After receiving his Bachelor of Science and Master of Science Degrees in Meteorology from the University of Wisconsin-Milwaukee, Skowronski joined the Air Force as a Civilian Instructor teaching meteorology at the Chanute Air Force Training Center. He even taught a student who ended up eventually working with him at NWS Green Bay.

Following the announcement of the training center relocating to Biloxi, Mississippi, Skowronski decided to migrate north to the Green Bay NWS office, where he could embrace his love for winter weather. Skowronski began his NWS career in Green Bay as a Meteorologist Intern in 1991. He was later promoted to a General Meteorologist, then to a Lead Meteorologist.

Throughout his NWS career, he used his admirable teaching skills to train several new meteorologists at NWS Green Bay, in addition to creating countless applications and programs to help improve the office's efficiency. It was also during his time at NWS Green Bay when he met his wife, Linda, the Administrative Services Assistant who retired in the summer of 2022.

Skowronski's career came full circle from when his love for weather started with the winter storm of April 9, 1973, to his last forecasting shift 50 years later as it included a winter storm on April 17, 2023.

Jim and Linda plan to stay in the Green Bay area. We wish them the very best in retirement together, and we thank Jim for the many years of service at NWS Green Bay.

"Meteorology to me is really more of a vocation than a career." - Jim Skowronski

Happy Retirement!!!

After 42 years and 9 months of federal government service, Rob Hoag retired from the National Weather Service in late July.

Hoag joined the Navy from December 14, 1979, and retired on October 31, 2000. During his time in the Navy, he worked on radar and computers for missile and gun weapons systems onboard Navy destroyers and cruisers. Following his time in the Navy, he utilized the electronics skills he gained and worked as an Industrial Electrician in Appleton. However, Hoag did not like the exhausting schedule of an industrial electrician and started looking for a new job soon after. Always having a love for basic electronics and radar, he found the Electronics Technician (ET) job at NWS Green Bay, where he started in October 2001. He was later promoted to the management position of Electronics Systems Analyst (ESA) in March 2006.

During his 22 years at NWS Green Bay, Hoag kept the facility and equipment in check, such as maintaining the radar, upper air/inflation building (where the weather balloons are launched), and weather stations at certain airports in central and northeast Wisconsin. In fact, Hoag's favorite memory revolves around performing maintenance on the Rhinelander weather station's visibility sensor. Weather conditions were very cold and the snow and sleet was on its way. Hoag and another ET were just finishing up and trying to calibrate the visibility sensor when an important part broke. They searched all the stores in Rhinelander for the needed parts, but couldn't locate anything that worked. After some phone calls, they were able to borrow the needed parts from the Marshfield weather station, but had to drive there to get them. By this point, the snow and sleet had started. Somehow, they made it safely to Marshfield and back to Rhinelander in horrible driving conditions. The visibility sensor was back up by the late evening, so what started out as a frustrating day, turned into a rewarding experience, as the commercial flight was able to land the next morning and allow the people in the Rhinelander area to continue with their travel plans to fly to warmer locations.

In retirement, Rob is looking forward to working on his property in Upper Michigan, including building a new house, spending time in the great outdoors with his 3 grandsons, and hunting. We wish Rob the very best in retirement, and thank him for his many years of service at NWS Green Bay.

"Have a fine weather service day!" - Rob Hoag



NWS GREEN BAY GIVES BACK TO THE COMMUNITY

BY: SCOTT BERSCHBACK, LEAD METEOROLOGIST

Employees at the National Weather Service office in Green Bay gave back to the community this year by participating in a variety of programs. We hope everyone had a happy and healthy holiday season!

Adopt-A-Family

NWS Green Bay adopted a family during the holiday season, purchasing over 40 items, including sporting goods, toys, books, clothes, shoes, gift cards, and household/hygiene items.



Food Drive

NWS Green Bay staff has collected food items for the past several years, donating to different food pantries across northeast WI. This year, we collected 106 non-perishable food items, weighting 93 pounds.



Adopt-A-Highway

For the fifth straight year, employees cleaned the park-and-ride parking lot near the Freedom, WI, exit along I-41. Typically, anywhere from 3 to 6 employees volunteer to participate in each of the three cleanings during the spring, summer, and fall seasons. We plan to stay involved with the Adopt-A-Highway program for many years to come.



FAMOUS WEATHER NAMES! WORD SEARCH

A P E C Q Z N G O E K T P R A G I K R P
 V L M E B I W P N V T Q O I N N O P S N
 J Q R C Z I S I N O T B I F D I H L Q G
 X I D O H R L T C C E R D F E L Q U M V
 G Y M E K C E S C R L R B A R L U H N M
 B F K C C E D G T S T K T S S I Z L K X
 U T E A A R R S N E S C F T C K G D A X
 O O A N A N I Y D I E P U R E S V X L V
 P S N L T M T F U D G U V E L M I B A V
 I B L M P D U O D J G J E B S O L K A P
 V I I S R J J A R S J W T R I T L A U A
 W L O S I R D V P E H I R E U R L B N U
 B N U T T Q Q C T T H S C H S T X N Q L
 V Z A T I E H N E R H A F L E I R B A G
 S M A R B A E I N A H P E T S E T S C O
 K E N G R A H A M I P D Y T L H A D S O
 Q L M V H Q W I L L I A M F E R R E L D
 N B S I K D J D U Y N E I G M D Q S I L
 Y M Y N Y E O L B Q F X K I S B L I S O
 A G P F U E Y W V A G Q M W H B Y N M E

AL ROKER

HERBERT SAFFIR

ROBERT SIMPSON

ANDERS CELSIUS

ISAAC CLINE

STEPHANIE ABRAMS

DR TED FUJITA

KEN GRAHAM

TOM SKILLING

GABRIEL FAHRENHEIT

JIM CANTORE

WILLARD SCOTT

GINGER ZEE

PAUL GOODLOE

WILLIAM FERREL

NATIONAL WEATHER SERVICE GREEN BAY

2485 South Point Road
Green Bay, WI 54313
Phone: 920-494-2363

www.weather.gov/grb



NWSGreenBay



@NWSGreenBay

