



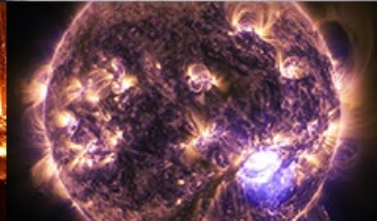
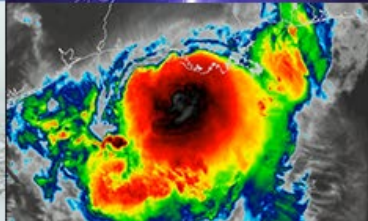
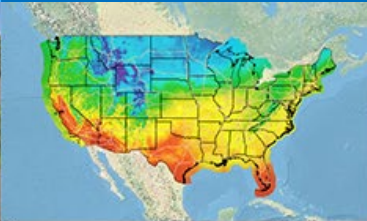
**NATIONAL
WEATHER
SERVICE**

How NWS Central Region Offices are Working to Provide More Actionable Climate Information to Core Partners through Consistent Subseasonal to Seasonal Impact-Based Decision Support Services

MAY 24, 2022

Audra Bruschi

NWS Central Region Climate Services Program Manager





Outline



Current Climate Services Messaging

- Local NWS Central Region (CR) offices
 - Regional Messaging efforts
- 



Ongoing Work on New Climate Services Initiatives

- NWS CR Roadmap Initiatives
 - National NWS Initiatives
- 
- 



Current Climate Services Messaging:

Local NWS Central Region Offices



Sub-Seasonal to Seasonal IDSS: WFO Social Media Posts

NWS Grand Rapids @NWSGrandRapids

4/27/2022: 8:15 PM: Another chilly night ahead. Here is a map showing the 30 year climatology for the Latest last 32 F Freeze. So chilly springs have lasted through May and even into June. For more information, Here is the Climate blog site. [weather.gov/grr/blog](https://www.weather.gov/grr/blog)

Climatological Date of the Latest Last 32F Freeze
Climatology from 1990-91 to 2019-2020

Days	Color	Days	Color	Days	Color
11-15	Red	16-20	Orange	21-25	Yellow
16-20	Orange	21-25	Yellow	26-30	Light Green
21-25	Yellow	26-30	Light Green	31-35	Green
26-30	Light Green	31-35	Green	36-40	Dark Green
31-35	Green	36-40	Dark Green	41-45	Blue
36-40	Dark Green	41-45	Blue	46-50	Light Blue
41-45	Blue	46-50	Light Blue	51-55	Very Light Blue
46-50	Light Blue	51-55	Very Light Blue	56-60	White
51-55	Very Light Blue	56-60	White		

Climate Location: Grand Rapids, Michigan | Latest Last 32 F Freeze: 5/11/2022

NWS Gaylord @NWSGaylord

You may be thinking, "what #growingseason??" after this weekend's warmth, a little green is starting to show in some places around Gaylord. Concerned about your plants? Check with #gardening experts at your local @MSUEExtension office! #miwx #northernMichigan #ag

NWS Detroit @NWSDetroit

What will temperatures & precipitation look like this month? Here is the latest forecast from the Climate Prediction Center for southeast Michigan #miwx

NWS Grand Rapids @NWSGrandRapids

A big swing in the weather pattern over the U.S. is likely next week, making days in the 70s and 80s a good bet for Michigan. For comparison, normal high temperatures in the second week of May are in the upper 60s, and normal lows are in the mid 40s. #wmiwx #miwx

Sharp Warm-Up Becoming More Likely Next Week
Outlook for Monday, May 9, to Friday, May 13

Warmer-Than-Normal Temperatures Likely For the Great Lakes Region | Frequent Showers and Thunderstorms Mostly Staying West of Michigan; Can't Rule Out Some in Michigan

6-10 Day Temperature Outlook | 6-10 Day Precipitation Outlook

Weather Service: Grand Rapids, Michigan | Last Updated: 5/12/2022 2:56 AM

Where's the Growing Season???

Heat Accumulation compared to normal as of April 19, 2022

- Northern Michigan has remained relatively cool through most of the spring thus far, as we stayed north of the warm front for several strong storm systems.
- Warmth from this past weekend has allowed more Growing Degree Days (a way of calculating heat accumulation for plant growth) to accumulate across the area.
- A cold air mass will move in later today, bringing early-March-like temperatures to the area through Wednesday night. Highs will struggle to break 40° with lows in the mid-20s or colder.
 - Temperatures will be colder aloft (no inversion).
- Annuals (e.g., plants you get at a greenhouse or start from seed indoors) will not be safe outside.
- For additional plant/garden safety concerns, check with your local extension office!

NWS Gaylord, MI
Local Office: Agriculture Program
weather.gaylord.gov

MAY 2022 OUTLOOK

Average to slightly below temperatures expected for the month of May

Normal precipitation expected for the month of May

Follow us: @NWSDetroit, www.weather.gov/dtx

Monthly Temperature Outlook
Valid: May 2022
Issued: April 22, 2022

Typical May Temperatures
High: 65° - 75° | Low: 45° to 54°
* Range from May 1st to May 31st

Monthly Precipitation Outlook
Valid: May 2022
Issued: April 22, 2022

Typical May Precipitation
Monthly: 3.72"
Year to Date: 12.54"
Snowfall: 0" | Record: 6" (1923)

NWS Quad Cities @NWSQuadCities

Who is ready for a BIG warm up? Climate Prediction Center's 6-10 day outlook is favoring above normal temperatures throughout the area! "How warm are you talking?", you may be asking...We may reach temperatures around 90 mid-late next week! #ilwx #mowx

6-10 Day Temperature Outlook
Valid: May 12-16, 2022
Issued: May 6, 2022

1. Above Normal Temperatures are Favored through End of Next Week!

2. Temps Around 90!

Normal Mid May Highs: 68° - 73°

NATIONAL WEATHER SERVICE QUAD CITIES AREA
NATIONAL CLIMATE DATA CENTER



Sub-Seasonal to Seasonal IDSS: WFO Drought/Climate Reports

North Dakota Drought Briefing

Area of Severe Drought in Western North Dakota

May 5, 2022
1:44 PM

Key Messages

- Severe drought continues in parts of western North Dakota.
- Drought is expected to be removed in southwest North Dakota, and is expected to remain but improve in the northwest.

Important Updates

- Drought conditions have improved across much of the state due to significant amounts of snow and rain during April.
- Drought has been completely removed in central North Dakota and parts of the west.

Next Scheduled Briefing

- This briefing will be updated

None	D0	D1	D2	D3	D4	D5
Current	85.8	14.2	0.0	0.0	0.0	0.0
Last Week	83.0	17.0	0.0	0.0	0.0	0.0
1 Month Ago	54.7	45.3	0.0	0.0	0.0	0.0
3 Months Ago	20.0	79.8	0.0	0.0	0.0	0.0
6 Months Ago	2.24	97.76	0.04	0.01	0.02	0.03
One Year Ago	0.00	100.00	0.00	0.00	0.00	0.00

North Dakota Drought Briefing

Past Conditions

May 5, 2022
1:44 PM

Since the start of the water year (October 1st), precipitation has been 200 to 300% of normal across most of North Dakota, with amounts decreasing to the northwest. Parts of the west and south central have been warmer than average, while the north and east have been cooler than average.

Generated 5/5/2022 at HRRC using reanalysis data. NOAA Regional Climate Center.

National Oceanic and Atmospheric Administration
National Weather Service Bismarck, North Dakota

Drought Briefing

Update for the week of April 29, 2022

...Abnormal Dry Conditions in parts of the DVN CWA...

U.S. Drought Monitor Midwest

April 26, 2022
(Released Thursday, Apr. 28, 2022)
Valid 8 a.m. EDT

None	D0	D1	D2	D3	D4	D5
Current	87.81	12.19	0.00	0.00	0.00	0.00
Last Week	85.56	14.44	0.00	0.00	0.00	0.00
1 Month Ago	51.00	49.00	0.00	0.00	0.00	0.00
3 Months Ago	19.00	81.00	0.00	0.00	0.00	0.00
6 Months Ago	0.00	100.00	0.00	0.00	0.00	0.00
One Year Ago	0.00	100.00	0.00	0.00	0.00	0.00

Intensity:
None, D0 (Abnormally Dry), D1 (Moderate Drought), D2 (Severe Drought), D3 (Extreme Drought), D4 (Exceptional Drought), D5 (Extreme Drought)

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <http://droughtmonitor.unl.edu>

Author: Brent Rippey
U.S. Department of Agriculture
USDA, NRCS, NWS, NOAA, IOWA

droughtmonitor.unl.edu

National Weather Service Goodland, Kansas Climate Briefing

Drought Monitor for the High Plains

U.S. Drought Monitor High Plains
U.S. Drought Monitor Goodland, KS WFO

Intensity:
None, D0 (Abnormally Dry), D1 (Moderate Drought), D2 (Severe Drought), D3 (Extreme Drought), D4 (Exceptional Drought), No Data

Discussion:
Throughout the month of April a 1 class degradation was made to a wide area of the Tri-State area, with low precipitation amounts until the final 1-2 weeks of the month. Up until April 29th Goodland and Burlington were both at a Trace of precipitation for the month which would have been the driest April on record.

of the Day:
The last two months ultimately resulted in leaving only a post-drought area of conditions.

Quad Cities, IA/IL



Sub-Seasonal to Seasonal IDSS: State Interagency Partnerships and Collaboration

- A few states across NWS Central Region have established interagency climate working groups
- Participants may include:
 - NWS WFOs and RFCs, state climate office, state emergency management, state extension, state water office, state forestry, state health and environment, state agriculture, NIDIS, USGS, USDA, etc
- Purpose:
 - Information sharing to improve and enhance collaboration and joint messaging opportunities.





Current Climate Services Messaging:

Regional Messaging Efforts



Regional Resource: Winter Outlook Briefing Slides

- WFO Climate leads volunteered to put together a 16-slide **Winter Outlook Briefing presentation** after the official release of CPC's winter outlook.
 - Distributed to all CR WFO climate leads
- Target Audience:
 - Internal resource for CR NWS employees
- **Purpose:**
 - Provide a regional focus to the outlooks.
 - Provide easy-to-understand description of key factors considered for the outlooks.
 - Provide CR WFOs with talking points.

WINTER OUTLOOK 2021-22

Upfront - The Takeaways

What's Currently Expected This Winter

CPC Temperature Outlook:

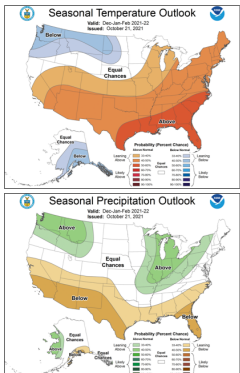
- Enhanced chances for **above-normal** temperatures across southern & eastern United States.
- Enhanced chances for **below-normal** temperatures in the Northern Plains.

CPC Precipitation Outlook:

- Enhanced chances for **wetter-than-normal** conditions in northwest Wyoming, & from Kentucky & Missouri north into the Great Lakes.
- Enhanced chances for **drier-than-normal** in southern Colorado & southeast Kansas.
- Equal chances of **above-, near-, and below-normal** precipitation from eastern Wyoming & northern Colorado east into Kansas, western Iowa, & Minnesota.

What's Uncertain

- La Niña will **not** be the only player this winter. Temperatures could be highly variable throughout the winter. Snow storms will likely occur at times this winter. However, the frequency, number, and intensity of these events cannot be predicted on a seasonal timescale.



The CPC winter forecasts above show **only the most likely outcome** where there is greater confidence, but this is **not** the only possible outcome.

NATIONAL WEATHER SERVICE weather.gov

WINTER OUTLOOK 2021-22

La Niña - What's Expected This Winter

Strength: **Moderate**

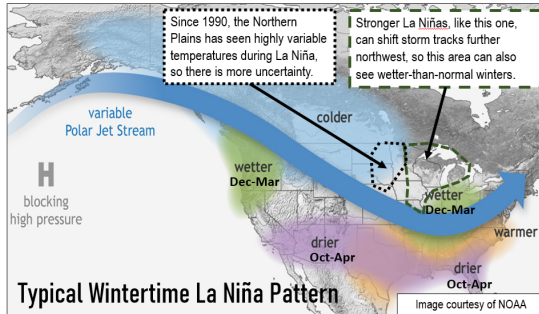
Typical Impacts

Temperatures:

- ✓ There tends to be a strong tendency for **colder-than-normal** conditions from southeast Alaska southeast into the Northern Plains.
- ✓ There is a strong tendency for **warmer-than-normal** conditions across the southern and eastern United States.

Precipitation:

- ✓ There is a strong tendency for **wetter-than-normal** conditions from the Tennessee/Ohio river valleys into the southern Great Lakes & Pacific Northwest
- ✓ There is a strong tendency for **drier-than-normal** conditions across the southern United States.



Since 1990, the Northern Plains has seen highly variable temperatures during La Niña, so there is more uncertainty.

Stronger La Niñas, like this one, can shift storm tracks further northwest, so this area can also see wetter-than-normal winters.

Typical Wintertime La Niña Pattern

Image courtesy of NOAA

Moderate La Niña Winters: 1955-56, 1970-71, 1984-85, 2010-11, & 2020-21.

NATIONAL WEATHER SERVICE weather.gov

Regional Resource: Central Region Monthly Climate Reports

- CR WFO Climate leads volunteer to create these monthly one-pagers.
- More technical/educational
- Target Audience:
 - Internal CR NWS employees
 - Some offices share with savvy media partners

National Weather Service
Central Region Climate Outlook

June 2022 – August 2022

Friday, May 20, 2022 12:48 PM

Important Message:

Drought Persisting or Expanding Across Rockies and Plains

✓ A La Niña Advisory remains in effect as equatorial sea surface temperatures remain below normal. The odds are for La Niña chances to decrease into the late Northern Hemisphere summer before slightly increasing through fall and early winter.

✓ Warmer and drier conditions are favored during the June, July, and August time period over much of the Rockies and the Plains. This will likely cause the ongoing drought over the western part of CR to persist or expand

June 2022 Temperature & Precipitation Outlooks

• Temperatures are favored to be above normal across the southern two thirds of CR based on model forecasts. The highest probabilities will be over parts of CO and KS, where soil moisture is very dry. Equal chances are outlooked over the north where recent wet weather makes warmer weather less likely.

• Below normal precipitation is favored for the central Rockies into the Central Plains into western MO, with equal chances elsewhere. The biggest contributor to this forecast is dry soil moisture over the western part of CR.

One Month Temperature Outlook

One Month Precipitation Outlook

Seasonal Drought Outlook

The seasonal drought outlook favors both warmer and drier than normal conditions across much of Rockies, Plains, and into the middle Missouri Valley. This will likely cause:

- Drought to persist over much of the Rockies and Plains.
- Drought to develop over parts of WY, CO, NE, SD, KS, MO, IA.

June 2022 through August 2022 Temperature & Precipitation Outlooks

• Above normal temperatures are favored over all of CR except for parts of ND and northern MN, where wet soil moisture is favoring equal chances. Otherwise, dynamic models are favoring warmer than normal conditions, particularly over parts of WY, CO, and KS where soil conditions are very dry.

• Drier than normal conditions are expected over parts of the Rockies, Plains and Mid Missouri Valley, with the highest probabilities over the High Plains where the soil moisture is very dry. More uncertainty exists over SW CO, where onset of the SW Monsoon is anticipated.

Three Month Temperature Outlook

Three Month Precipitation Outlook

Building a Weather-Ready Nation

For more info, contact: ray.wolf@noaa.gov

National Weather Service
Central Region Climate Outlook

June 2022 – August 2022

Friday, May 20, 2022 12:49 PM

Soil Moisture: A Key Component To The Outlook

Calculated Soil Moisture Ranking Percentile
MAY 15, 2022

The abnormally warm and dry conditions over the parts of the Plains and Rockies and the recent heavy rains over the Dakotas and Upper Midwest have caused a wide variability in soil moisture. The soil moisture was a key factor into the monthly and seasonal outlooks.

IRI/CPC Probabilistic ENSO Forecast/Plumes

• Though La Niña is favored to continue, the odds are for La Niña to decrease into the late Northern Hemisphere summer (58% chance in Aug-Oct) before slightly increasing through fall and early winter (61% chance).

• There are roughly equal odds of La Niña and ENSO neutral during the Northern Hemisphere summer, with La Niña conditions favored for the fall and early winter 2022-23.

Other Teleconnection Effects

• A Kelvin wave is expected to move into the Western Hemisphere during late May and early June time period, which may cause an increased chance for early season tropical cyclone activity.

Useful Links/Info:

News from [Climate.gov](https://climate.gov)
[Latest ENSO Blog](#) from Climate.gov
[Sea Surface Temperatures](#) from the Climate Prediction Center
[Latest ENSO Discussion](#) from the Climate Prediction Center
[Drought Information](#) from the US Drought Monitor
[Interactive GIS Mapping](#) from NCEI (Anomalies/Rankings)
[Local Climate Analysis Tool](#) (LCAT) – Account registration required
[NWS Forecast Maps](#) from Western Region

Building a Weather-Ready Nation

For more info, contact: ray.wolf@noaa.gov

Building a Weather-Ready Nation

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Regional Collaboration: Seasonal Hazard Outlooks



- Created by CR Regional Operations Center (ROC)
- 2-4 different one-pagers created to better highlight specific regions
- Collaborate with regional SMEs in climate, agriculture, hydrology, drought, etc. for feedback and inputs
- Issued seasonally, in line with CPC seasonal outlook releases and/or spring flood outlook messaging
- Target Audience: local, state, regional, and tribal core partners and stakeholders
 - Plain language



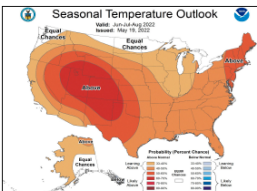
Central Region Regional Operations Center

Released: May 20, 2022

Summer Outlook Favors Warmer and Drier Conditions Across Much of the Central Plains, with Continued or Worsening Drought Conditions Expected

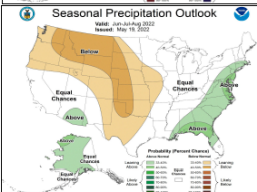
Summer Outlook: Temperature and Precipitation

The long-range summer outlook strongly favors increased chances for warmer than normal conditions across the Central Plains and High Plains. Warmer than normal conditions also are favored across the mid-Mississippi Valley, Ohio Valley, and the Great Lakes. Only across the far northern part of the Northern Plains are there equal chances for above, below, or near normal temperatures through the summer season. As for precipitation, increased chances for drier than normal conditions are favored across much of the High Plains and slightly favored in the eastern Central Plains. Equal chances for above, below, or near normal precipitation are favored across much of the upper and mid-Mississippi Valley, the Ohio Valley, and Great Lakes region.



2022 Precipitation Overview & Drought Outlook

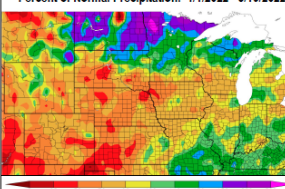
Much of North Dakota, northeast South Dakota, and northern Minnesota have experienced a wet start to the year with above normal rainfall and snowfall. Additional areas that have seen slightly above normal precipitation so far this year include portions of Missouri into the Ohio Valley and Great Lakes regions. This precipitation, combined with the summer precipitation outlook, suggests that drought conditions generally are not favored for much of this area through the summer.



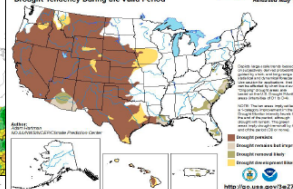
In contrast, much of the High Plains and parts of the Central Plains have experienced drier than normal conditions so far in 2022. When combined with the summer precipitation outlook, the drought outlook favors continued drought conditions in these areas with possible drought development into lows through the summer.

ABOVE: Temperature and Precipitation Outlooks for the 3-month period of June - August 2022 (Source: CPC)

Percent of Normal Precipitation: 1/1/2022 - 5/19/2022



U.S. Seasonal Drought Outlook

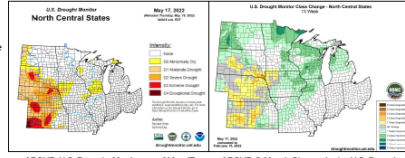


Central Region Regional Operations Center

Released: May 20, 2022

Drought Conditions

The mid-May U.S. Drought Monitor update notes that about a third of the north central U.S. is experiencing some degree of drought conditions (compared to 65% of the region experiencing drought conditions back in mid Feb. 2022), with about 12% of the region currently experiencing severe, extreme, or exceptional drought.



Flooding Impacts

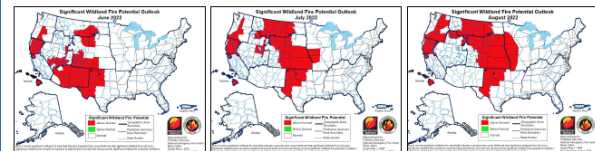
River levels across North Dakota, Minnesota, and northeast South Dakota are higher than normal for this time of year due to several rounds of heavy precipitation this spring combined with the spring snowmelt. In fact, several locations along the James and Red Rivers in the Dakotas and Rainy River basin in Minnesota reached or are continuing to experience moderate to major flooding this spring.

Areas impacted by persistent or worsening drought conditions may experience this summer:

- Larger and more frequent wildfires
- Less livestock forage and water
- Increased crop stress and livestock heat-stress
- Reduced rural water supply and quality
- Reduced or adapted outdoor recreation and tourism
- Decreased air quality
- Increased production of harmful algae blooms and other ecological impacts due to reduced water levels

Drought, Fire Weather, and Heat Impacts

River levels across the central High Plains are much below normal for this time of year due to ongoing dry conditions. The combination of long-term dryness, drier air in place leading to higher evapotranspiration, and very dry soils will likely contribute to limited availability of water for growing crops. Additional hazards this summer, particularly across the High Plains and portions of the Central Plains, include the potential for stretches of excessive heat. Any stretches of excessive heat could further exacerbate widespread dryness and keep soils very dry. The anticipation of warmer and drier conditions also may contribute to a potentially active fire weather season through the summer months across many areas in the High Plains and Central Plains.



For more information visit:

- Local Forecast - weather.gov
- Long-Range Outlooks - cpc.ncep.noaa.gov
- River Forecasts - water.weather.gov/ahps/forecasts.php

- Weather & Climate Data - nccl.noaa.gov
- Fire Outlook - aifc.noaa.gov
- Drought Information - drought.gov
- Agricultural Outlook - usda.gov/ncs/oa/outlook/forecast
- Streamflow Data - <http://waterwatch.usgs.gov/index.php?tab=7&w=>





Ongoing Work on New Climate Services Initiatives:

NWS CR Roadmap Initiatives



NWS Central Region FY 22 Roadmap/AOP Goals: Subseasonal to Seasonal IDSS

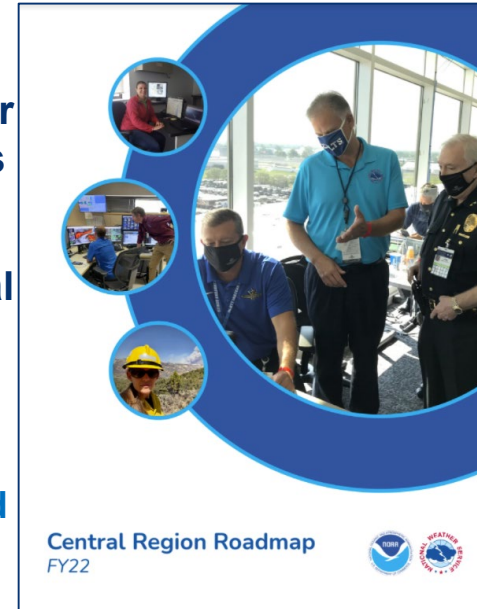
Background: CR Roadmap establishes regional goals for set time period and these goals have various focus areas

- Current CR Roadmap established goals for FY22

One of the Core Focus Areas → Subseasonal to Seasonal Impact-Based Decision Support Services (IDSS)

3 Specific Goals Outlined for this Focus Area:

- **Goal #1:** Develop an inventory of underserved climate-focused partners and communities at the local, state, and regional levels.
- **Goal #2:** Develop a proposal and accompanying needs assessment for a standard suite of subseasonal to seasonal IDSS products and services.
- **Goal #3:** Develop a plan which leverages climate SMEs to communicate to core partners new climate information on various timescales.



2. Create an inventory of opportunities for overall knowledge sharing and growth to support career goals for aspiring leaders to support succession planning.
3. Increase the number of CR employees able to serve as facilitators for the CR RMA Initiative.

Focus Area: Subseasonal to Seasonal IDSS

The Weather Research and Forecasting Innovation Act of 2017 (the "Weather Bill") and NOAA have emphasized the need for increased subseasonal to seasonal IDSS, to help the nation and communities better prepare for extreme weather and water events. Providing IDSS beyond seven days, by leveraging existing tools and engaging SMEs, supports the mission of the NWS and incorporates field input received as a desired outcome from the CR Roadmap FY22.

Subseasonal to Seasonal IDSS Goals

1. Develop an inventory of underserved climate-focused partners and groups at the local and regional levels.
2. Develop a proposal and accompanying needs assessment for a standard suite of subseasonal to seasonal IDSS products and services.
3. Develop a plan which leverages climate SMEs to communicate to Core Partners new climate information on various timescales.

Shared training remains a primary tenet of the Blue Sky Initiative.

The current CR Remote Meso-Analyst (RMA) initiative has proven successful in providing mutual aid to offices during high-impact operations, while also deepening mesoanalysis expertise across the region via open exchange and discussion between subject matter experts. Expansion of the RMA initiative would further promote these benefits.

Knowledge, Skills, and Abilities Goals

1. Facilitate regional training on foundational science topics and conceptual models, and highlight their use and utility in a modernized forecast process, focusing on ensembles and probability-based forecasting.

Example of shared training: the Southeast SDO Community performed a joint Severe Weather Seminar last year. These types of opportunities give local office staff the ability to learn from others, and to develop relationships with NWS beyond the walls of the local office.

Central Region Roadmap FY22

13



NWS Central Region FY 22 Roadmap/AOP Goals: Subseasonal to Seasonal IDSS

Goal #1: Develop an inventory of underserved climate-focused partners and communities at the local, state, and regional levels.

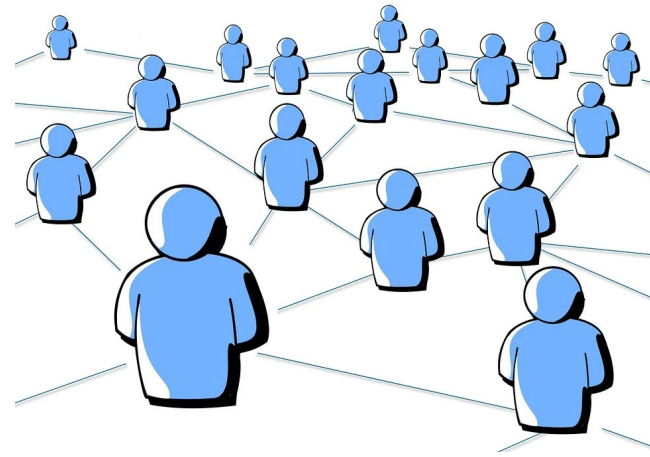
- Will help WFOs with improving partnerships and engaging with communities with climate-focused interests.

Action Items in Progress:

- Developing a spreadsheet where each office will identify climate-focused partners and communities that (a) they already serve, or (b) are underserved and could benefit from additional or new NWS engagement.

Desired Future “Next Steps”:

- The development of this inventory will serve as a stepping stone for enhanced outreach and IDSS to partners and communities with climate-related interests into the future.



NWS Central Region FY 22 Roadmap/AOP Goals: Subseasonal to Seasonal IDSS

Goal #2: Develop a proposal and accompanying needs assessment for a standard suite of subseasonal to seasonal IDSS products and services.

- Will ensure all CR WFOs have a solid foundation of established IDSS products/services they provide that we can then further build upon and enhance in the future.

Action Items in Progress:

- Distributed an internal survey for CR field office climate program leaders to 1) document current best practices for climate outlooks/briefings beyond the 7-day forecast period; 2) get suggestions on needed tools, products, and support services to help develop and expand subseasonal to seasonal IDSS.

Next Steps:

- Utilize feedback to determine types of information, content, and format partners desire for subseasonal to seasonal outlook information and IDSS.
- Develop a needs assessment and proposal with recommendations for requested products and services.
- Develop recommendations for base IDSS templates that can be used for more easily communicating subseasonal to seasonal outlook information.



NWS Central Region FY 22 Roadmap/AOP Goals: Subseasonal to Seasonal IDSS

Goal #3: Develop a plan which leverages climate SMEs to communicate to core partners new climate information on various timescales.

- Will ensure we're leveraging various areas of expertise from individuals across the region and utilizing them to ensure clear and concise subseasonal to seasonal IDSS messaging.





Recommendations for how offices can build a useful and sustainable climate program within their office.

Online Resource for CR Employees To Assist with Climate Services

Include links to:

- useful webpages, resources, & graphics
- climate training
- informational journal articles on climate topics

Local NWS Office Climate Teams, Individual Areas of Expertise

Climate Communications

- How to leverage online resources to communicate climate info.
- Playbooks, action plans, trigger chart, etc. to assist with consistent climate communications.
- Identify collaboration opportunities for NWS state liaison offices with climate messaging.

Local NWS Office Climate Webpages

Recommendations for enhancing local NWS office climate pages with additional resources, including pertinent regional-specific resources.

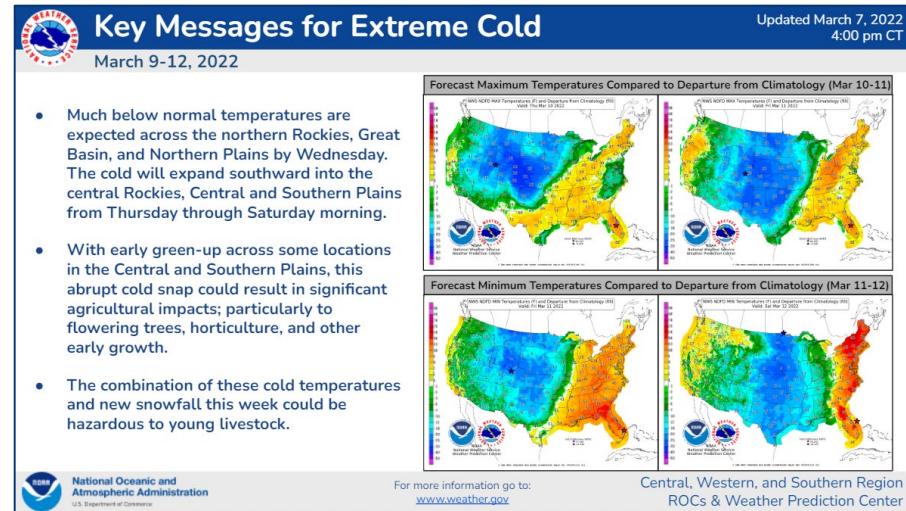


NWS Central Region: Regional Climate Messaging

Goal: Develop a standard suite of regional level climate IDSS that will be provided by the Central Region Regional Operations Center (ROC), and determine what “triggers” would initiate the development and dissemination of various types of climate IDSS.

Action Items In Progress:

- Learn more about our FEMA regions’ climate messaging interests or needs during the subseasonal to seasonal time frame.
- Develop a regional climate playbook to highlight what climate products/services will be supported by the CR ROC and what internal and external partners should be leveraged for collaboration opportunities.
- Develop a trigger chart for when the CR ROC will initiate climate services messaging and at what frequency such messaging should be completed – considering both subseasonal and seasonal opportunities.





Ongoing Work on New Climate Services Initiatives:

National NWS Initiatives



National NWS Initiatives: Collaborative Work with Regional Climate Services Program Managers

Subseasonal to Seasonal Impact-Based Decision Support Services

- **Internal NWS Collaborative opportunities:**
 - Develop templates and policy for national Climate Key Messages.
 - Improve collaboration/coordination efforts between local/regional NWS offices and the Climate Prediction Center (CPC).
- **Work on Climate Monitoring and Prediction IDSS Templates.**
- **Develop process for collaboration among key constituents for regional climate IDSS.**
- **Leverage information gathered from workshops and focus groups to make improvements to drought messaging within the NWS.**

Evaluate and Address Gaps in Service Equity

- **NOAA Regional Collaboration Network Climate and Equity Projects**
 - Central Region Project: "Building Knowledge to Support Equitable Climate Resilience."





Questions

Summary

Current Local and Regional Climate Services in NWS Central Region

- Social Media
- DSS Briefing Packets
- State Interagency Partnerships and Collaboration
- Winter Outlook briefing slides
- One-Pagers: technical, plain-language

FY22 NWS Central Region Roadmap

- Inventory: underserved climate focused partners, communities
- Needs assessment for standard suite of S2S IDSS products and services
- Leverage climate SMEs to communicate S2S climate info to core partners
- Regional climate messaging from the CR ROC

National Climate Services Initiatives

- National Climate Key Messages
- Improved collaboration / coordination with CPC
- Climate Monitoring and Prediction IDSS templates
- Collaboration efforts among key constituents for regional climate IDSS
- Improving NWS drought messaging
- Evaluate and address gaps in service equity

