

MAC-T Monthly Call

Midwest Agriculture and Climate Team

January 4, 2022

For more information:

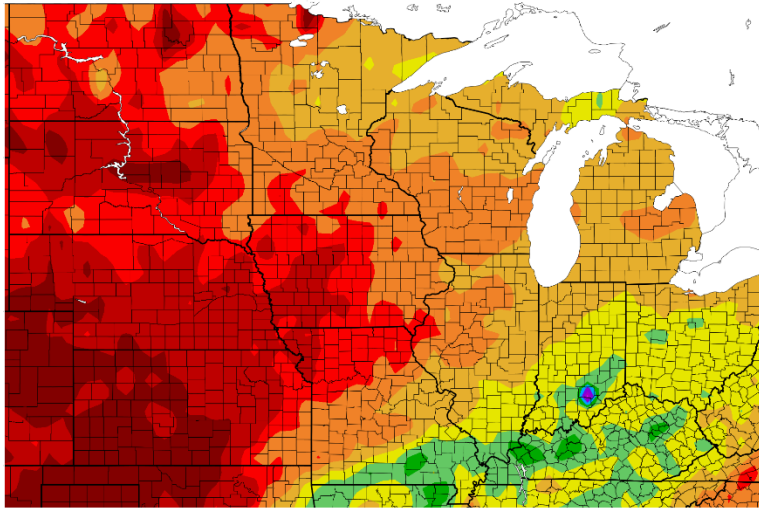
Dennis.todey@usda.gov



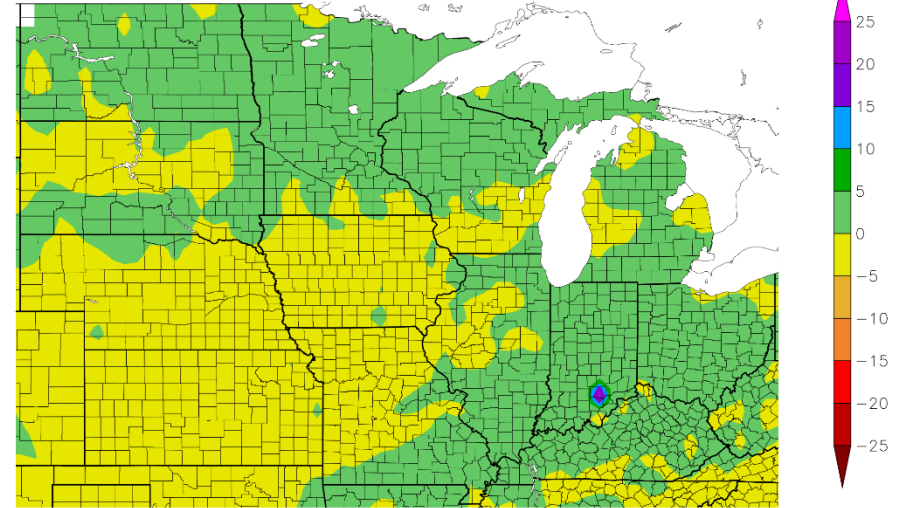
Midwest Climate Hub
U.S. DEPARTMENT OF AGRICULTURE



Precipitation (in)
12/4/2021 – 1/2/2022



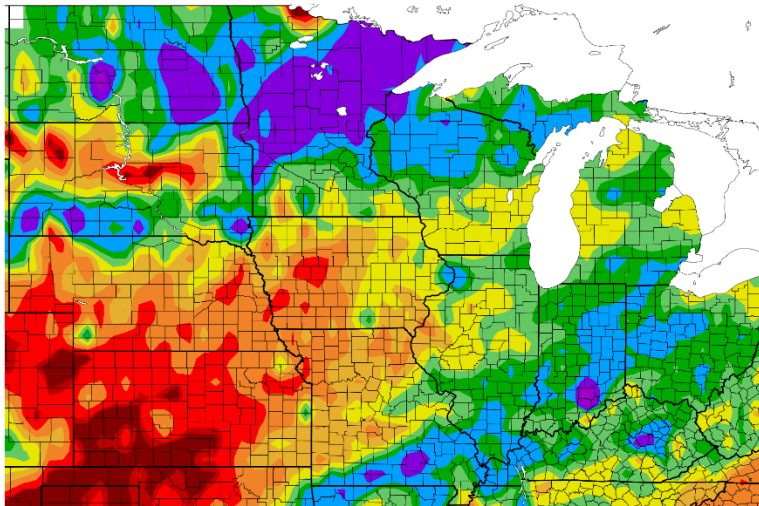
Departure from Normal Precipitation (in)
12/4/2021 – 1/2/2022



Generated 1/3/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

Percent of Normal Precipitation (%)
12/4/2021 – 1/2/2022



Generated 1/3/2022 at HPRCC using provisional data.

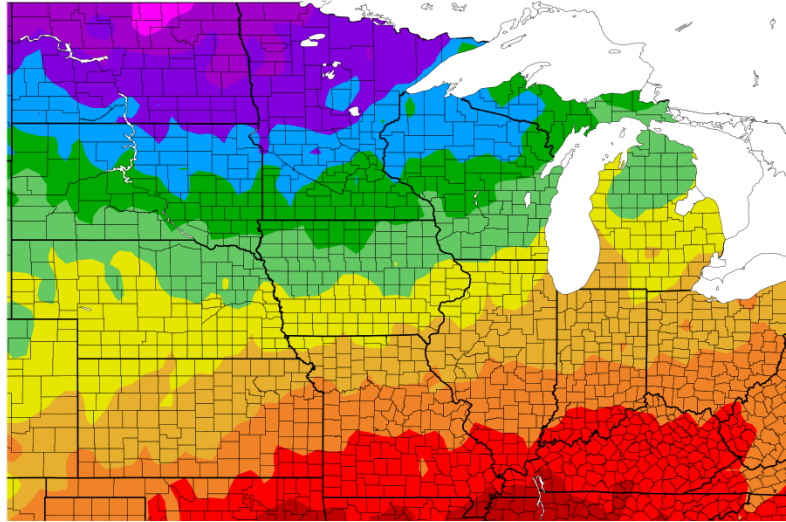
NOAA Regional Climate Centers

Generated 1/3/2022 at HPRCC using provisional data.

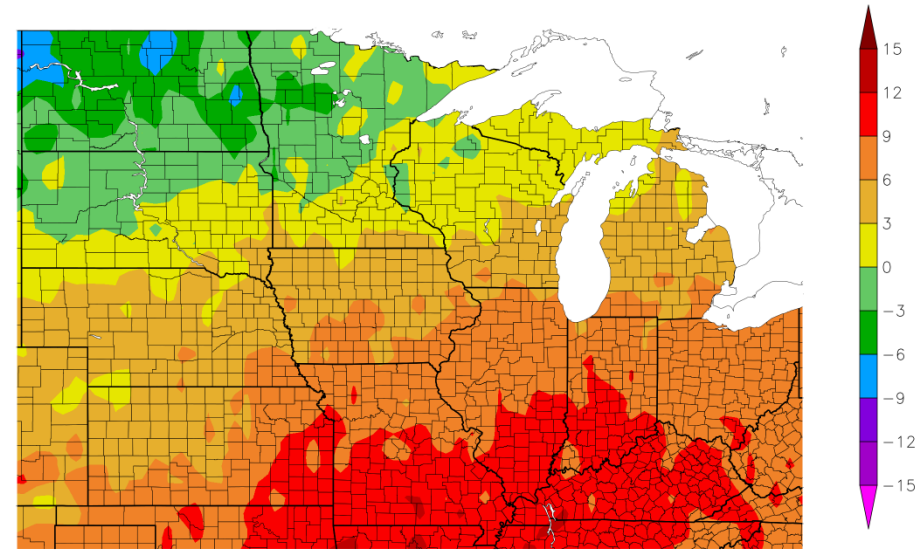
NOAA Regional Climate Centers

- Overall wetter than average in northern/eastern areas.
- Drier than average plains into IA/MO.
- Overall normals are fairly low in December.
- Very typical La Niña pattern

Temperature (F)
12/4/2021 – 1/2/2022



Departure from Normal Temperature (F)
12/4/2021 – 1/2/2022



Generated 1/3/2022 at HPRCC using provisional data.

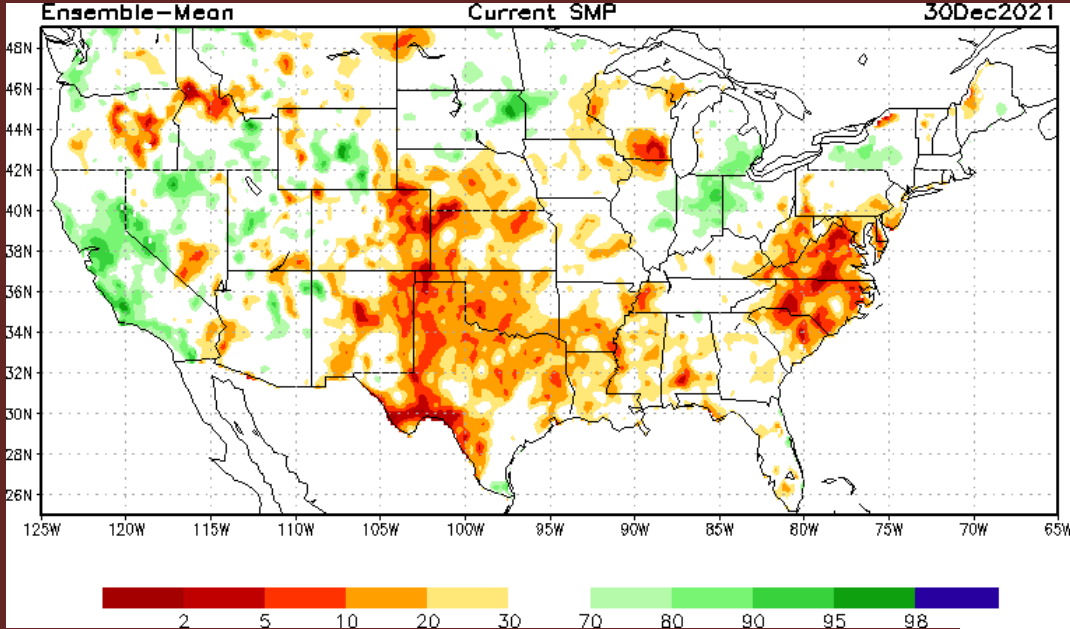
NOAA Regional Climate Centers Generated 1/3/2022 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Very warm December – record or near record much of southern part of region. More details in the next few days.
- 6-12 F above average southern half
- Near normal to colder north.

Soil Moisture

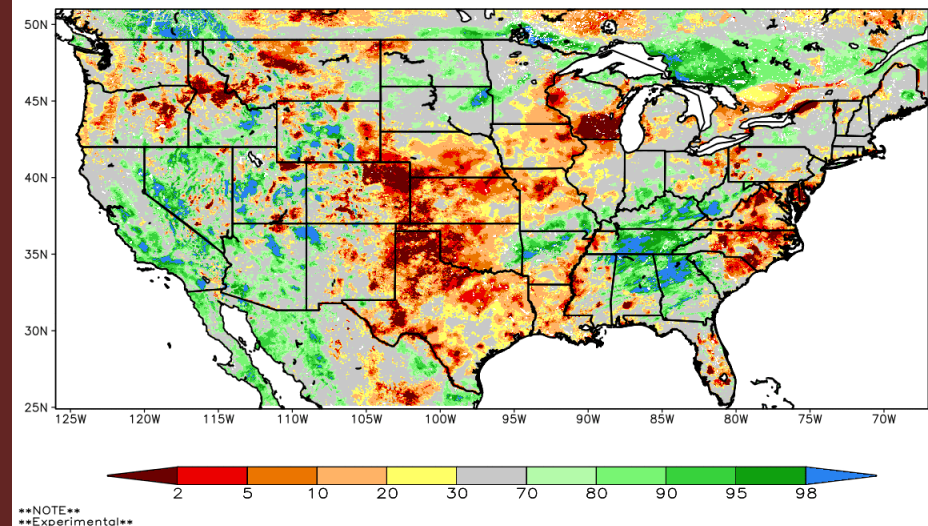
https://www.cpc.ncep.noaa.gov/products/Drought/Monitoring/smp_new.shtml#



- Drier soils in the plains with pockets other areas into IA/WI.
- Wetter areas in parts of Dakotas and eastern Corn Belt.

- Both percentile maps
- Upper – whole profile
- Lower – top 100 cm (~40")

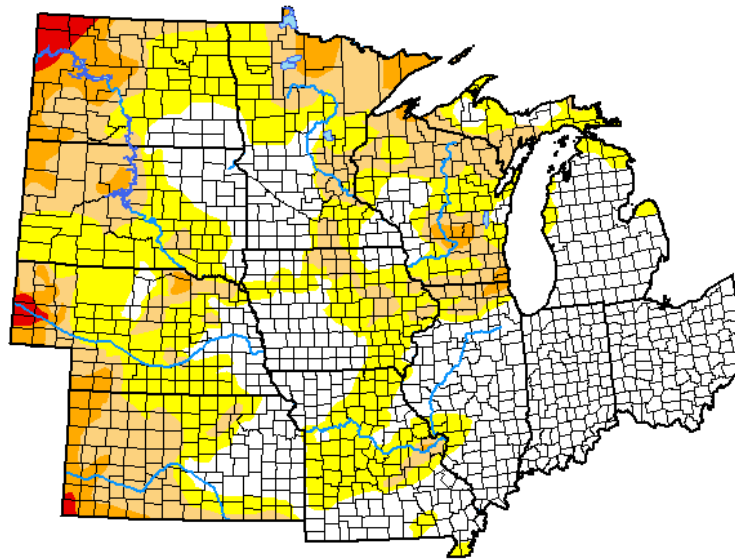
SPoRT-LIS 0-100 cm Soil Moisture percentile valid 03 Jan 2022



https://weather.msfc.nasa.gov/sport/case_studies/lis_CONUS.html

Drought in the Midwest

U.S. Drought Monitor North Central States



December 28, 2021

(Released Thursday, Dec. 30, 2021)

Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	42.28	57.72	27.89	7.91	1.16	0.00
Last Week 12-21-2021	43.06	56.94	27.35	8.61	1.16	0.00
3 Months Ago 09-28-2021	39.88	60.12	38.68	24.50	9.27	0.04
Start of Calendar Year 12-29-2020	34.48	65.52	38.13	15.29	4.66	0.00
Start of Water Year 09-28-2021	39.88	60.12	38.68	24.50	9.27	0.04
One Year Ago 12-29-2020	34.48	65.52	38.13	15.29	4.66	0.00

Intensity:

None	D2 Severe Drought
D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought

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

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CPC/NOAA



droughtmonitor.unl.edu

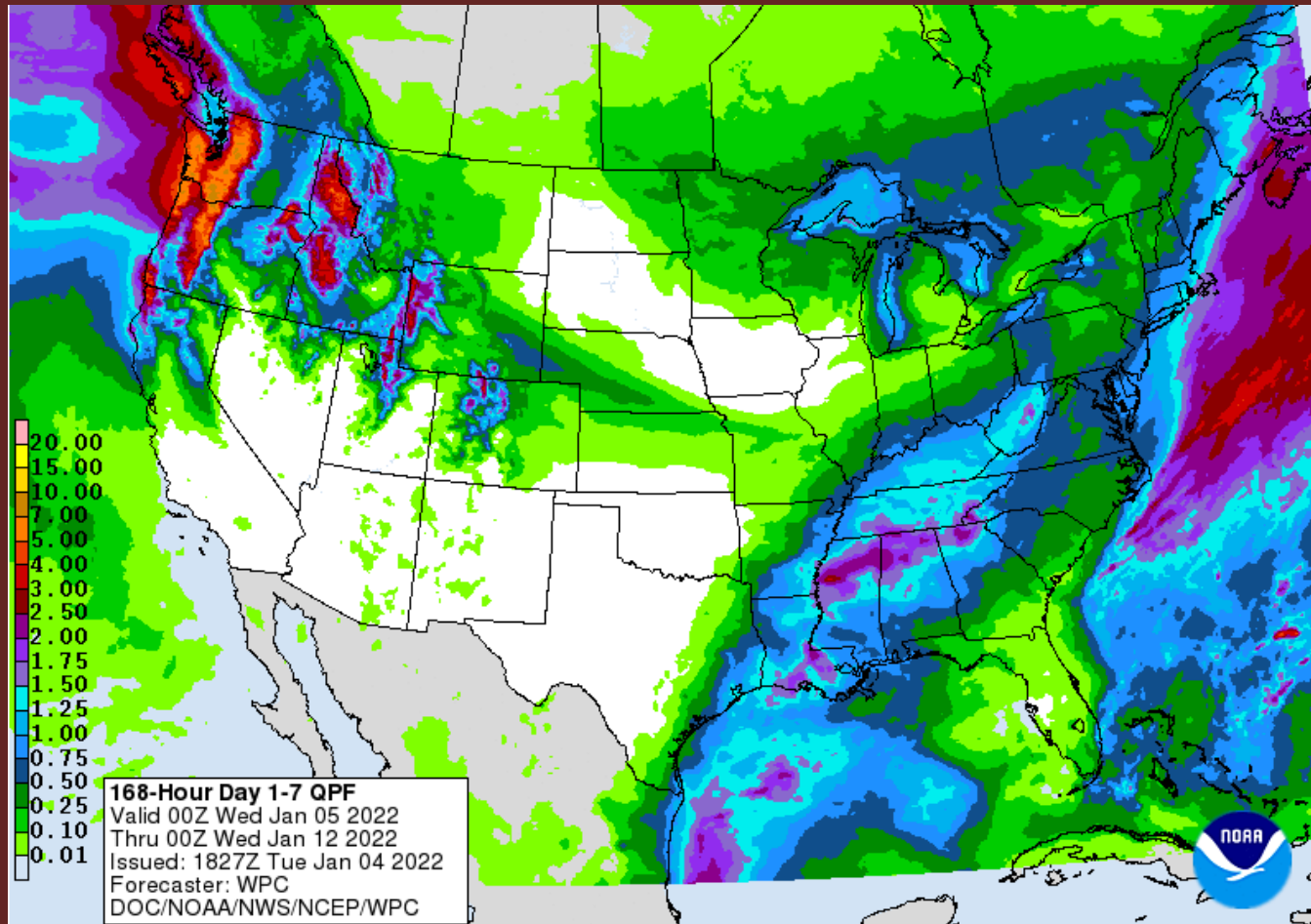
- Small changes in USDM coverage
- Some improvement north/worsening central plains to WI
- Worst still in Plains and far north.

<http://droughtmonitor.unl.edu/>

Assorted AG Issues

- Large storm in mid-December caused a variety of issues
 - Fires burned around 180K acres (KS)
 - Estimated around 2000 livestock lost
 - Numerous structures lost
- Dust storm damaged winter wheat from same system.
- Strong winds from the storm in Iowa/Minnesota/Wisconsin damaged hoop barns exposing crops to damaging temperatures.
- Severe weather from the Dec. 15 storm and a previous system caused fairly widespread severe weather (Particularly for December)
- Excess wetness in OH/IN has damaged some winter wheat

1-7 Day Precip



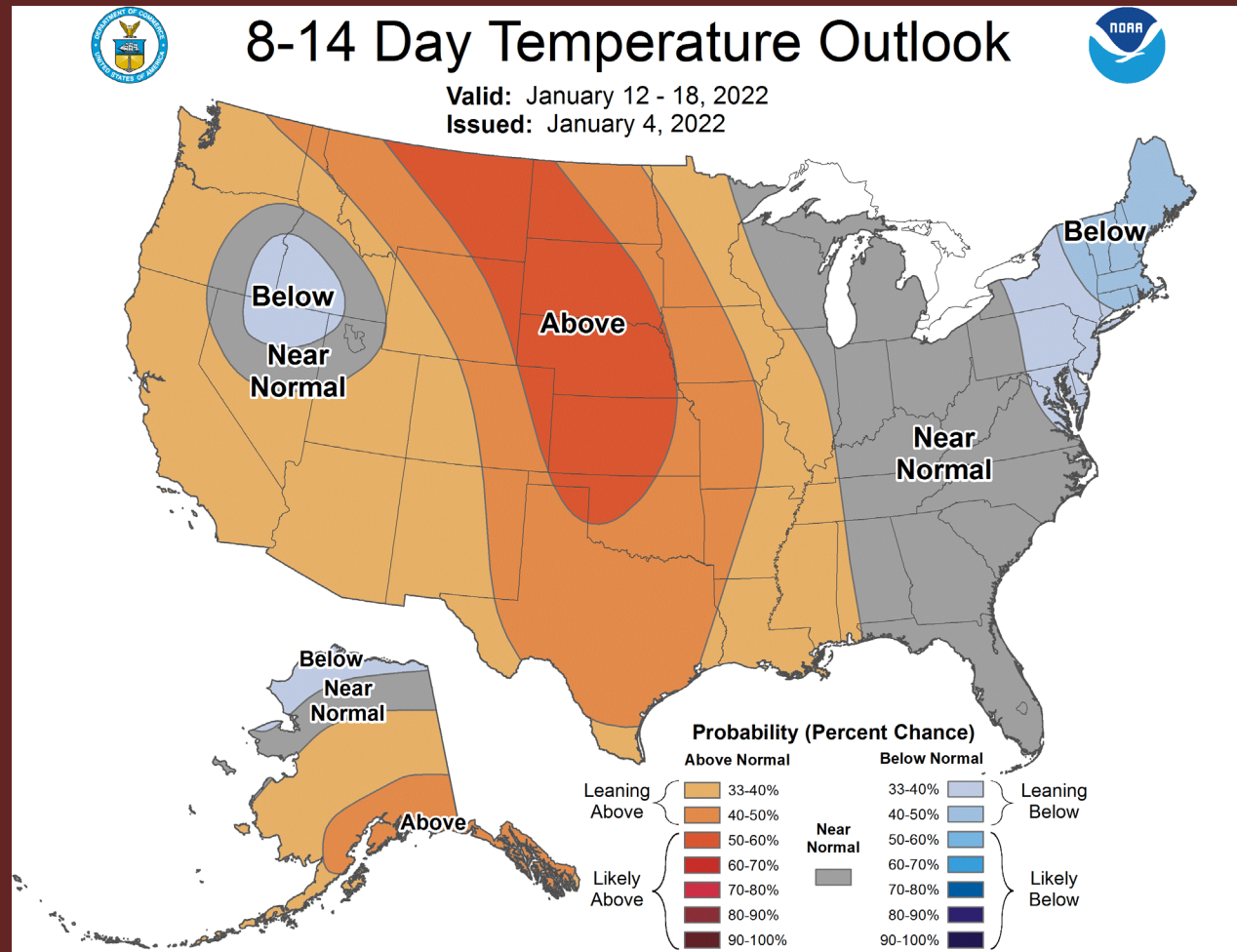
Next 7 days

- Snows possible Northern Plains and Central Plains.
- Also around Great Lakes (lake effect)
- Precipitation also up Ohio Valley.
- Quiet in between

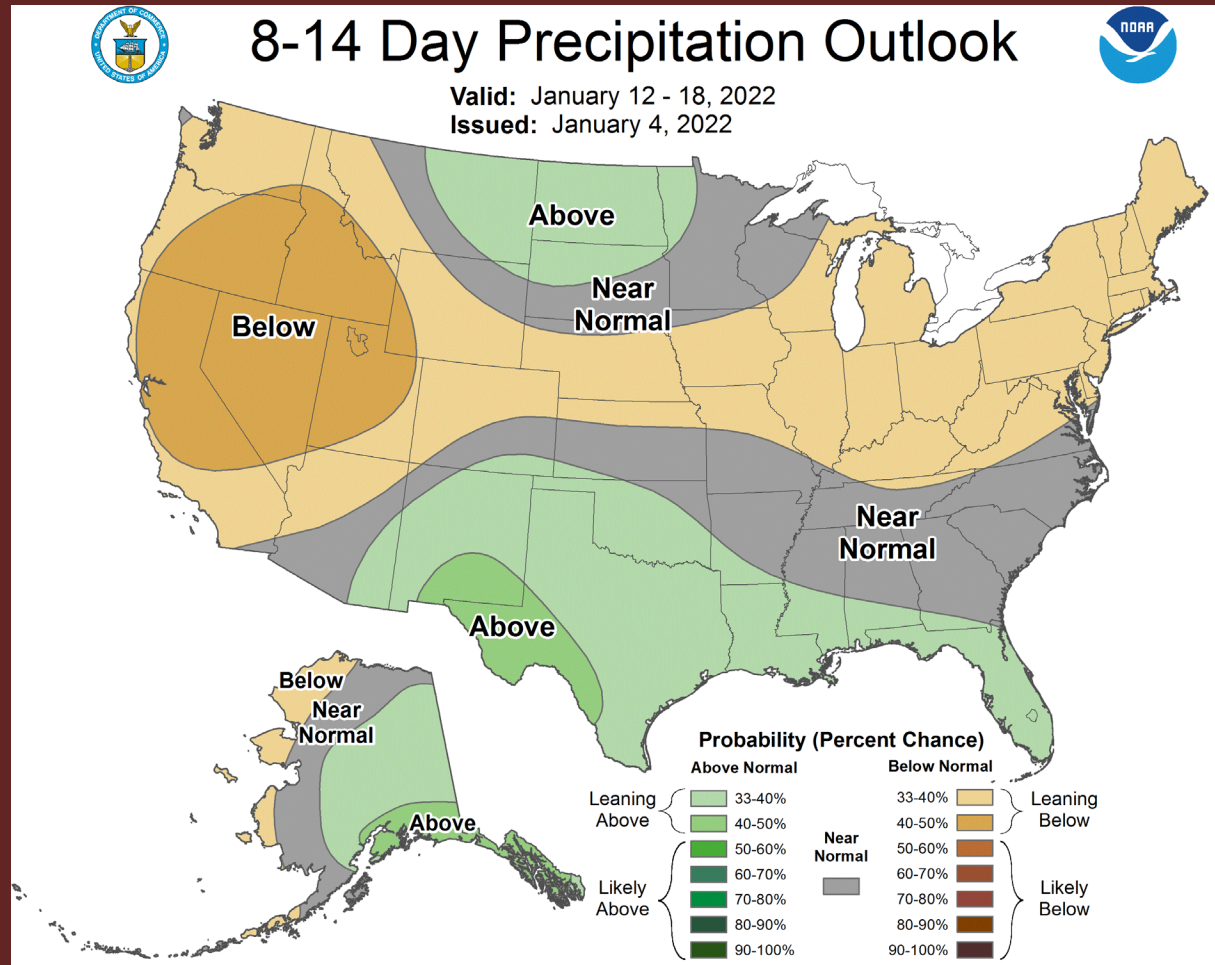
<http://www.wpc.ncep.noaa.gov/qpf/day1-7.shtml>

Temperature Outlook

- Warmer than average more likely over most of the Plains at 8-14 days.
- Near-normal east.



Precipitation Outlook

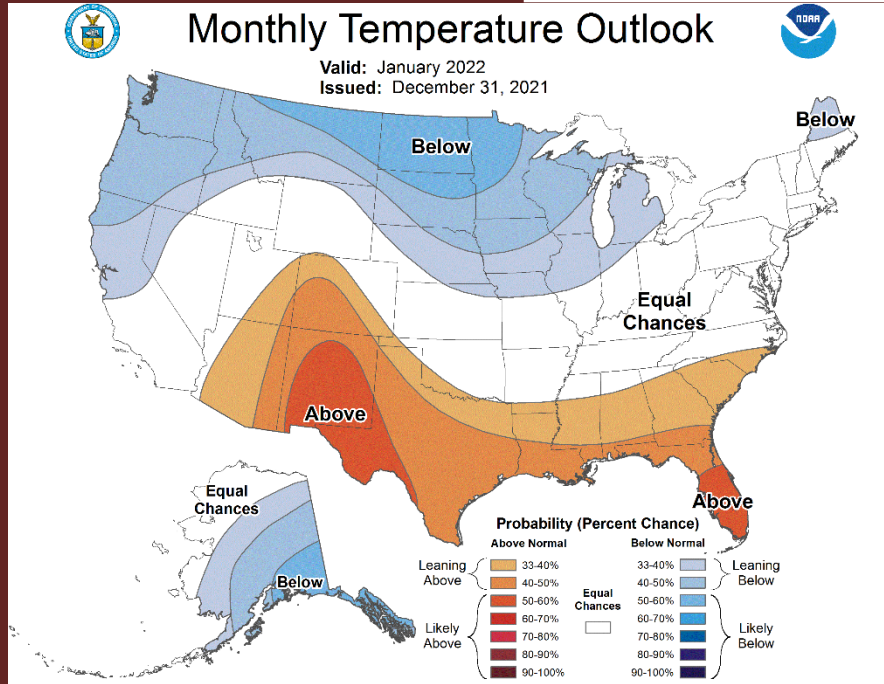


- All probabilities weak.
- Drier central-east
- Wetter north.

1-Month Outlook

Monthly Temperature Outlook

Valid: January 2022
Issued: December 31, 2021



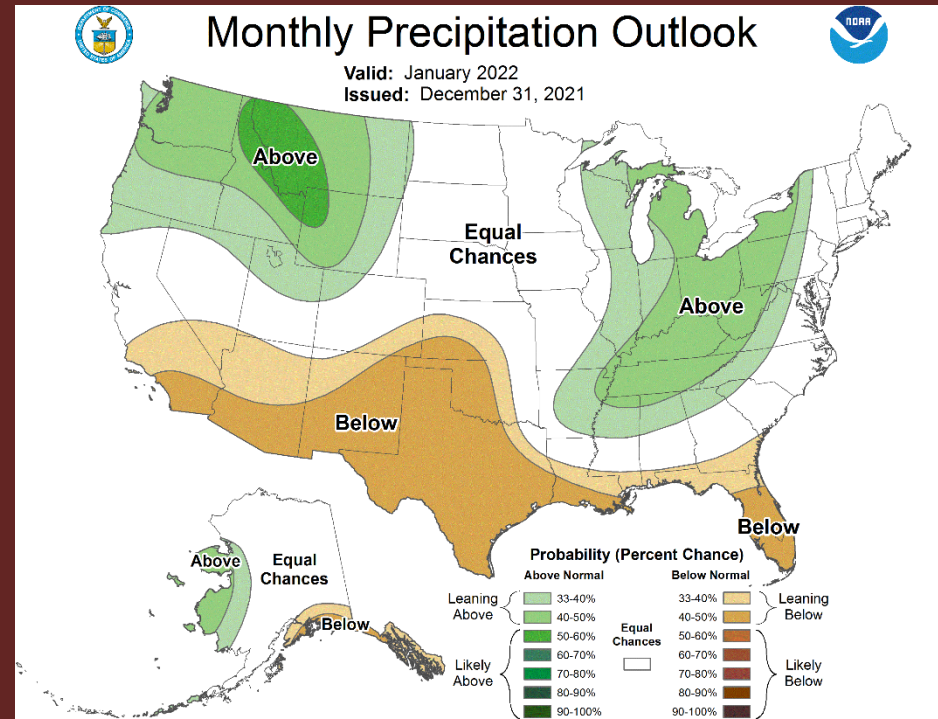
- Lake effect snows still more likely around Great Lakes (warm water)

January outlook

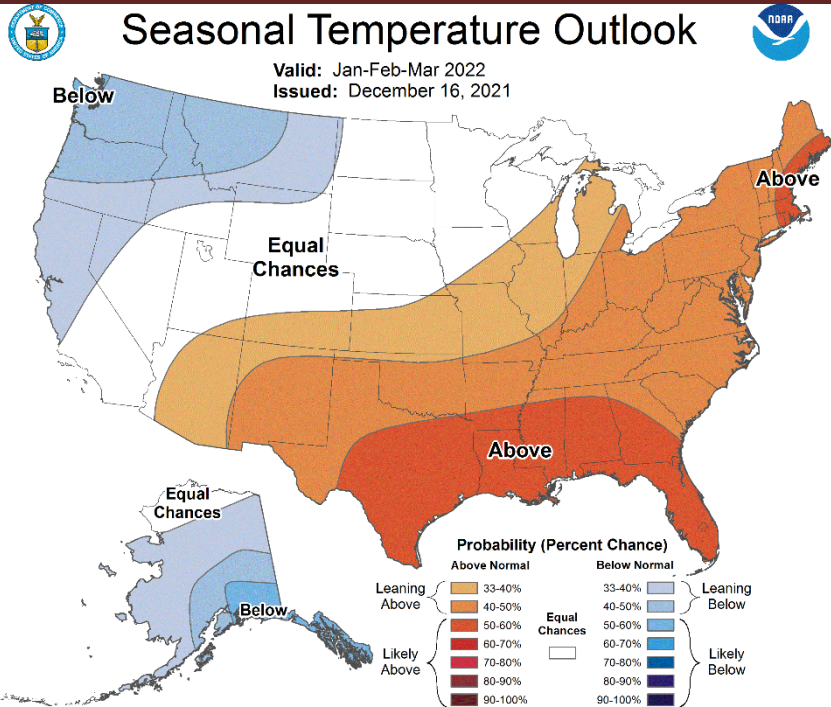
- Outlooks continue with La Niña look
- Better chance of cold Northern Plains into Midwest
- Wetter more likely far NW Plains and Great Lakes/Ohio Valley.

Monthly Precipitation Outlook

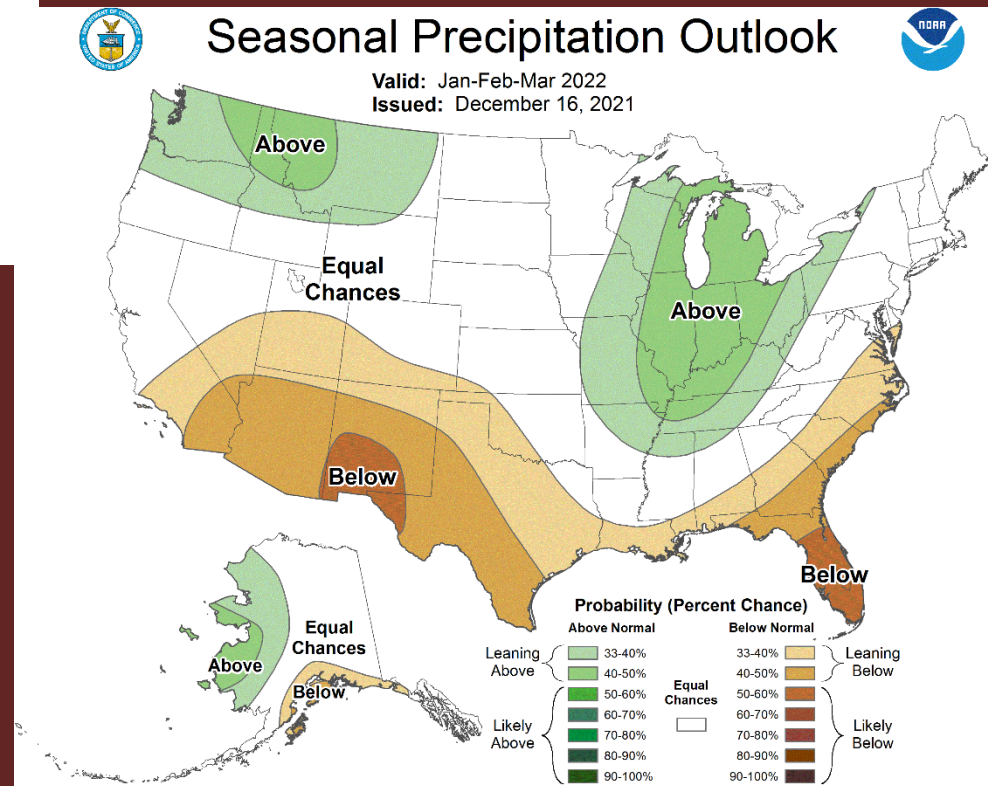
Valid: January 2022
Issued: December 31, 2021



January-March Outlook



- Still La Niña pattern.
- Slight chance warmer south/east returns.
- Slight chance wetter Great Lakes/Ohio Valley and far NW.

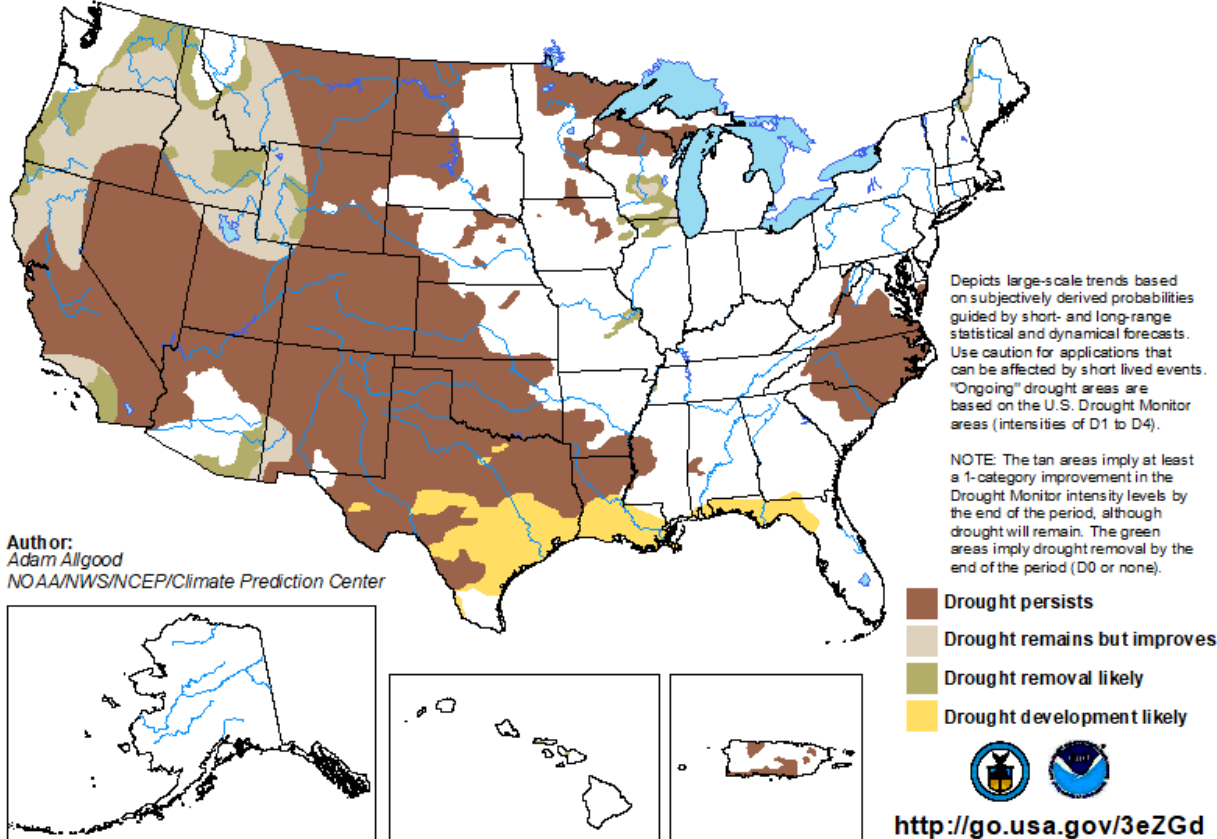


- Northern Plains snow beneficial for drought
- Could start causing more soil moisture problems for spring in eastern Corn Belt

Drought in the Midwest/Plains

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for January 2022
Released December 31, 2021



- Monthly outlook for January 2021
- Drought continues with little change in the plains
- Some improvements possible across parts of Wisconsin/Illinois.

Summary

- Despite off-season, still impacts to various crops around the region.
- Some drought shifting.
- La Niña impacting winter outlooks.
 - Could lead to excess wetness east.
 - More active could help dry northern areas.

Next MAC-T Monthly Call

Next Call

**Early spring, with slides sent out
monthly until then**