



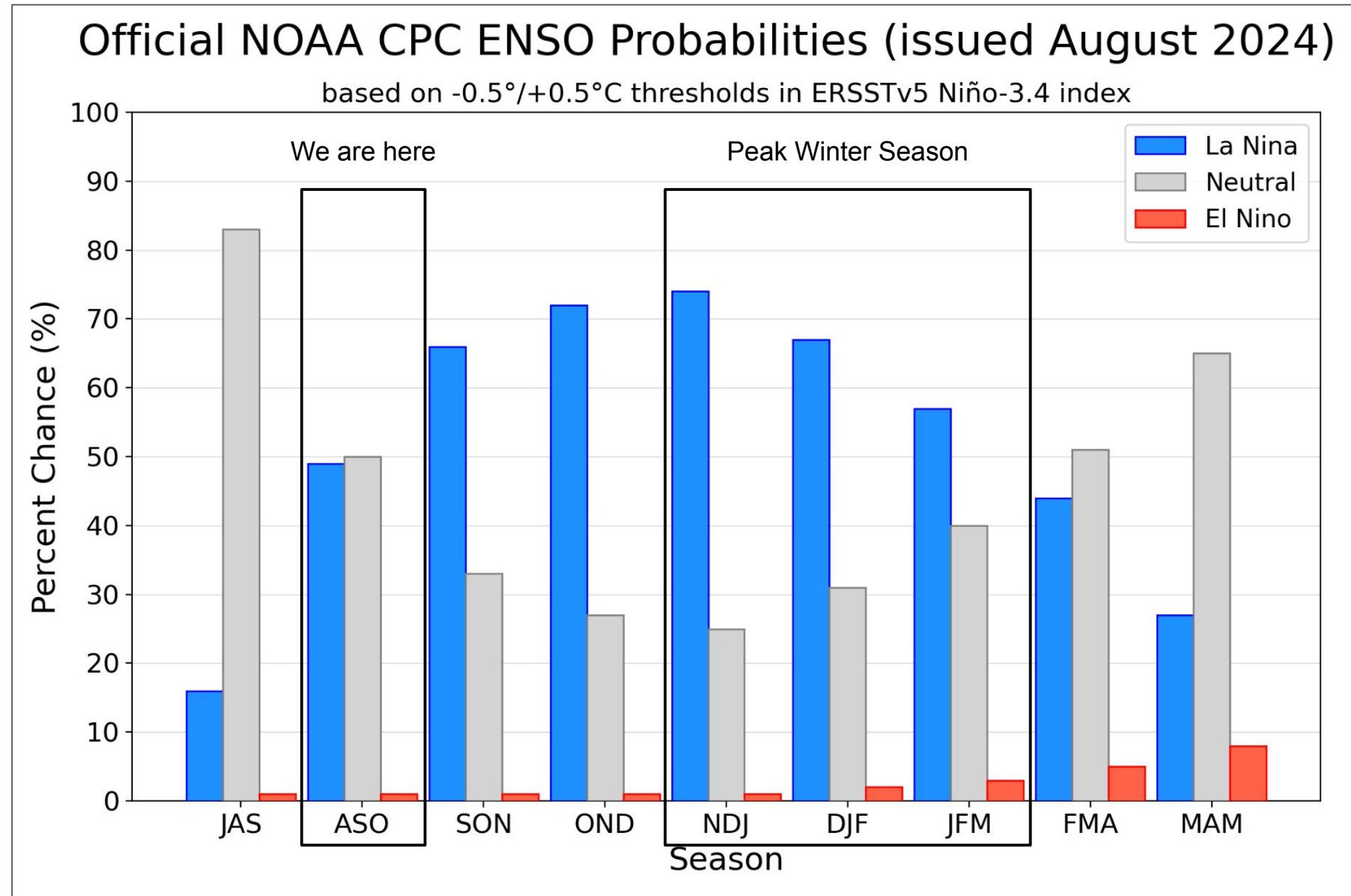
Preliminary Winter Outlook 2024-25

September 3, 2024
1:00 PM

September Update

Key Messages

- There continues to be favorability in the forecast for a transition from **ENSO Neutral** into **La Niña** (74% chance) this fall, then continuing through the winter.
- La Niña events typically feature colder and slightly wetter conditions during the winter across North Dakota and Minnesota. Ahead of La Niña winters, the fall season tends to be more mild and dry, with an abrupt transition to winter-like temperatures in the late fall. ENSO is just one climate factor which can dictate the expected pattern.
- Right now a weak event remains favored with a 40% chance of moderate La Niña (greater than 1.0°C SST anomaly). During weak events, odds are lower that the traditional La Niña pattern will dominate the winter.





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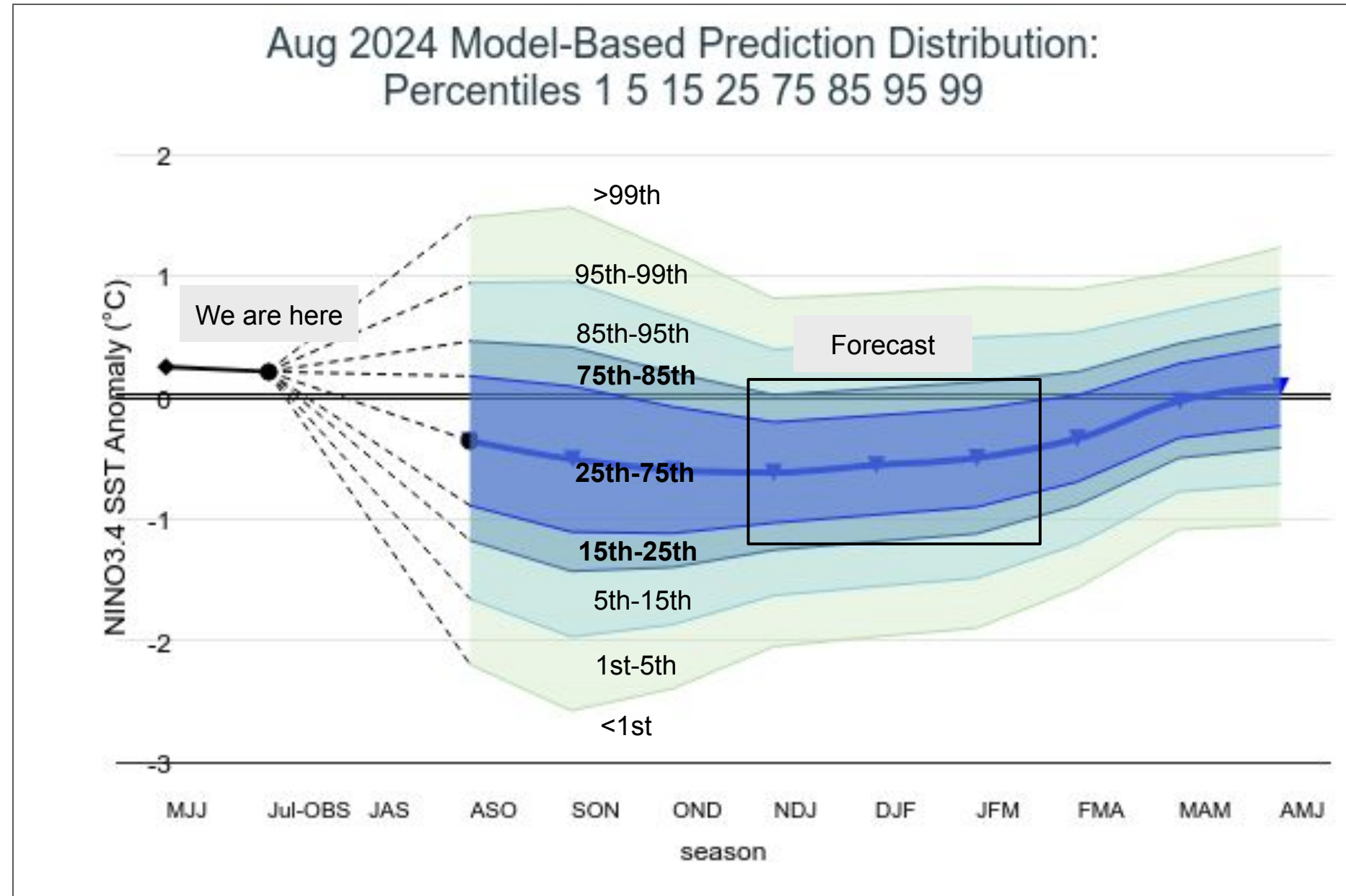
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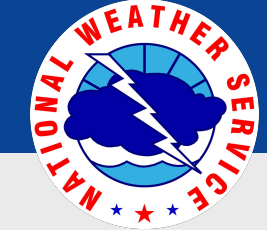
September Update

Currently we are still in the process of transitioning away from **El Niño** into **ENSO Neutral/La Niña**.

- The most recent 3 month Niño-3.4 SST Anomaly observation **+0.25°C** places us in **ENSO Neutral** status.
- To the right is a plume-based forecast probability distribution showing predictions of seasonal (3-month average) sea surface temperature anomaly in the Niño3.4 region in the east-central tropical Pacific (5° N-5°S, 120°-170°W), covering the nine overlapping seasons beginning with the current month. The predictions are based on the large (20+) set of dynamical and statistical models in the plume of model ENSO predictions.
- Given this distribution we can ascertain that a continued trend into **ENSO Neutral (+/- 0.5°C)** or **weak to moderate La Niña conditions (-0.5 to -1.5°C)** is anticipated for the **winter season (DJF)**

Boxes roughly represent the 15th to 85th percentile





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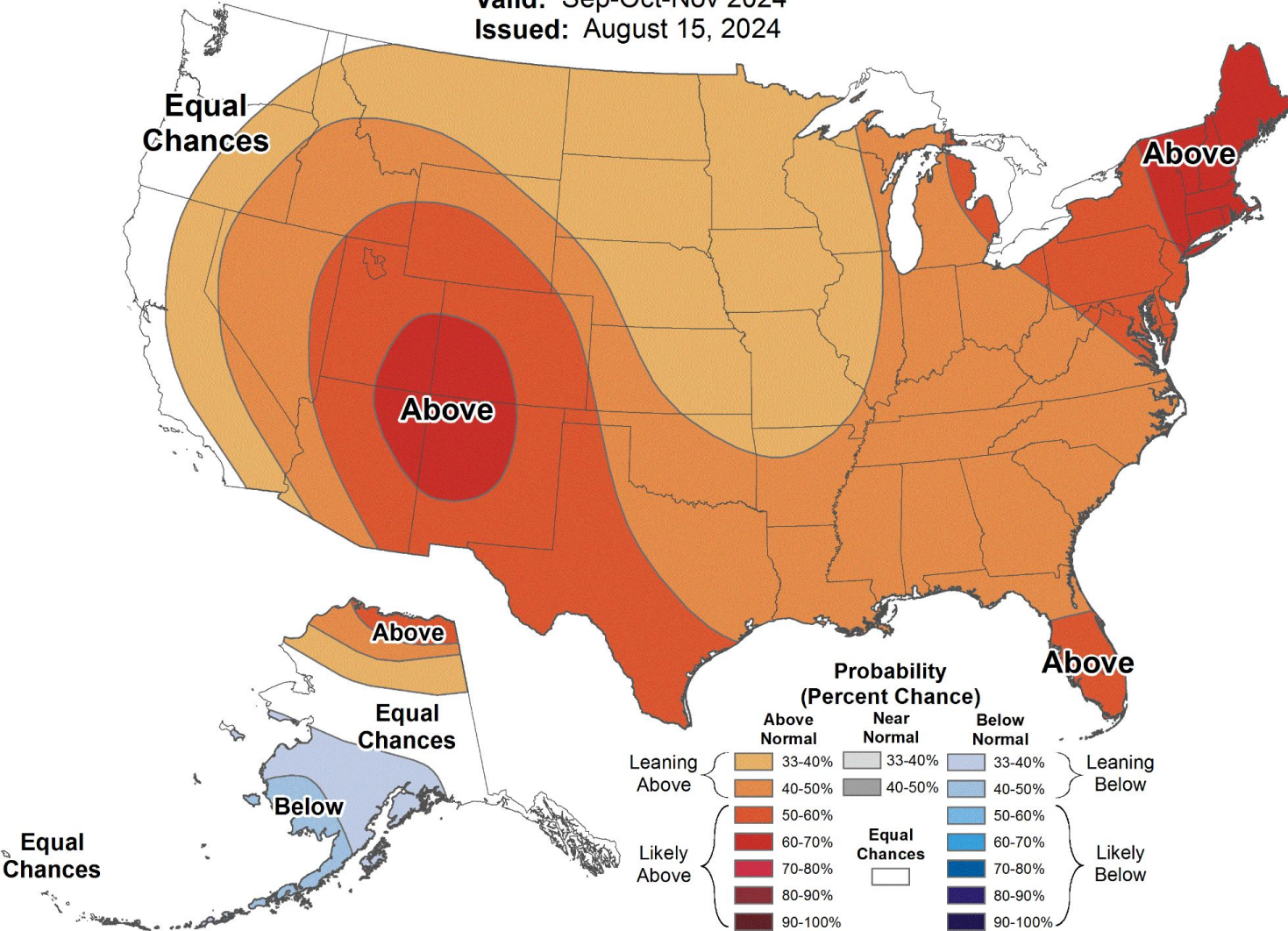
September Update



Fall Temperature Outlook



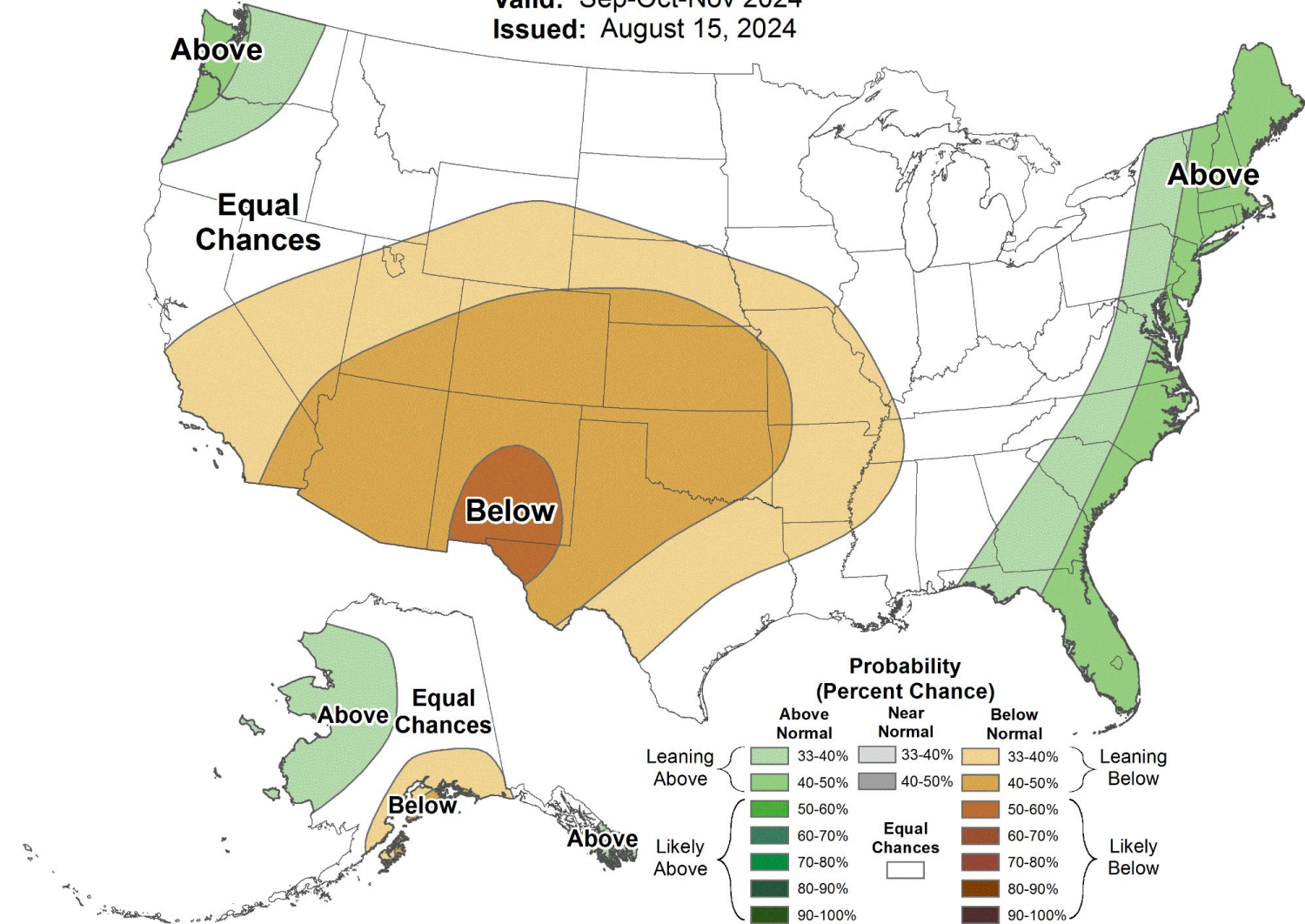
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Fall Precipitation Outlook

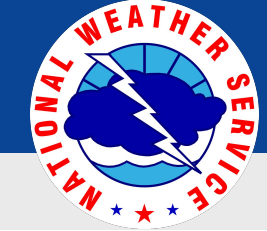


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There is a slight tilt (33-40% chance) for above normal this temperatures this fall, with equal chances for above, below, or near normal precipitation. La Niña falls are typically mild before a sharp drop into colder temperatures in the late fall season, that marks the start of winter temperatures that are then favored to persist into the spring. Remember we are are still technically in ENSO Neutral as of now not La Niña.





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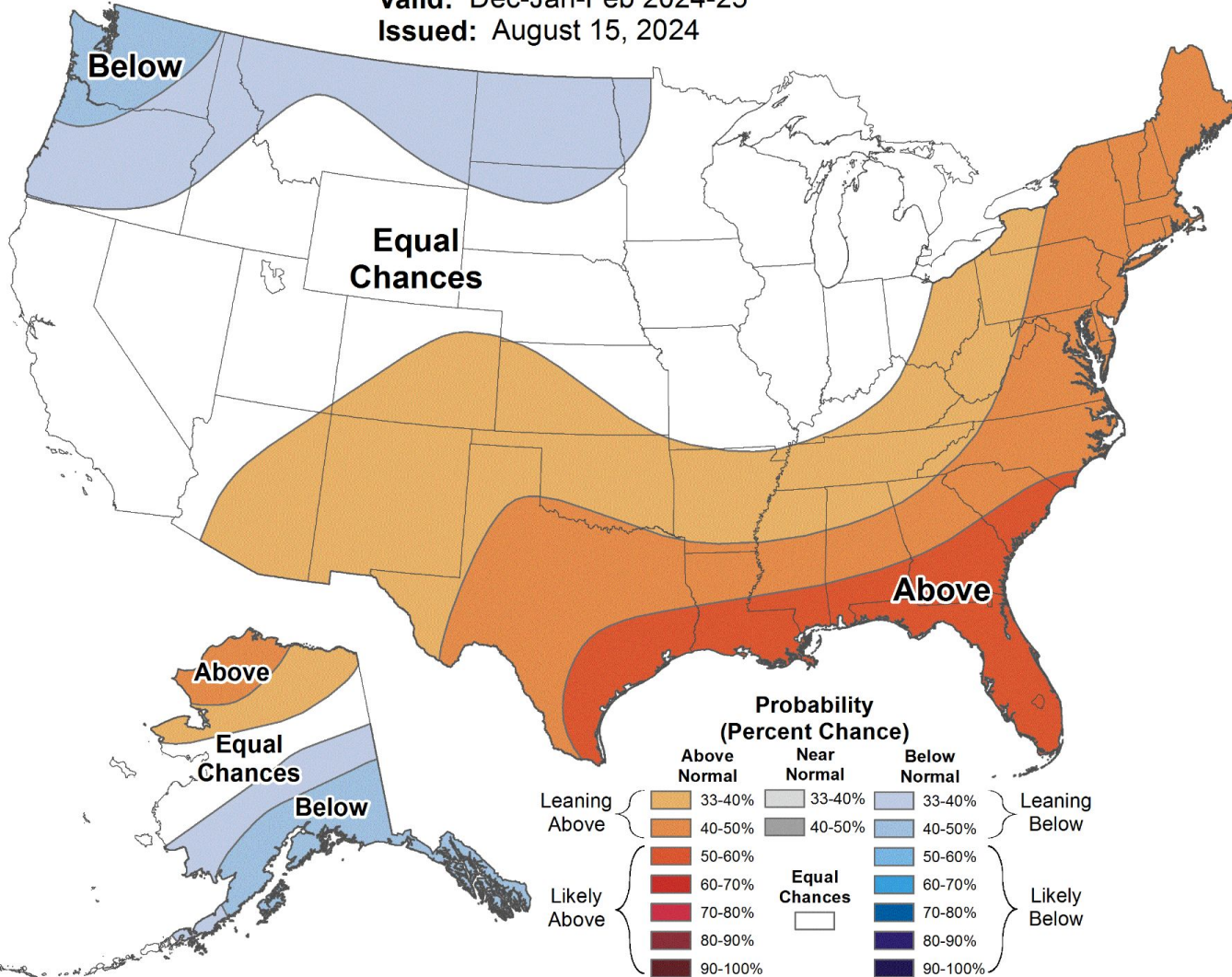
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Winter Temperature Outlook



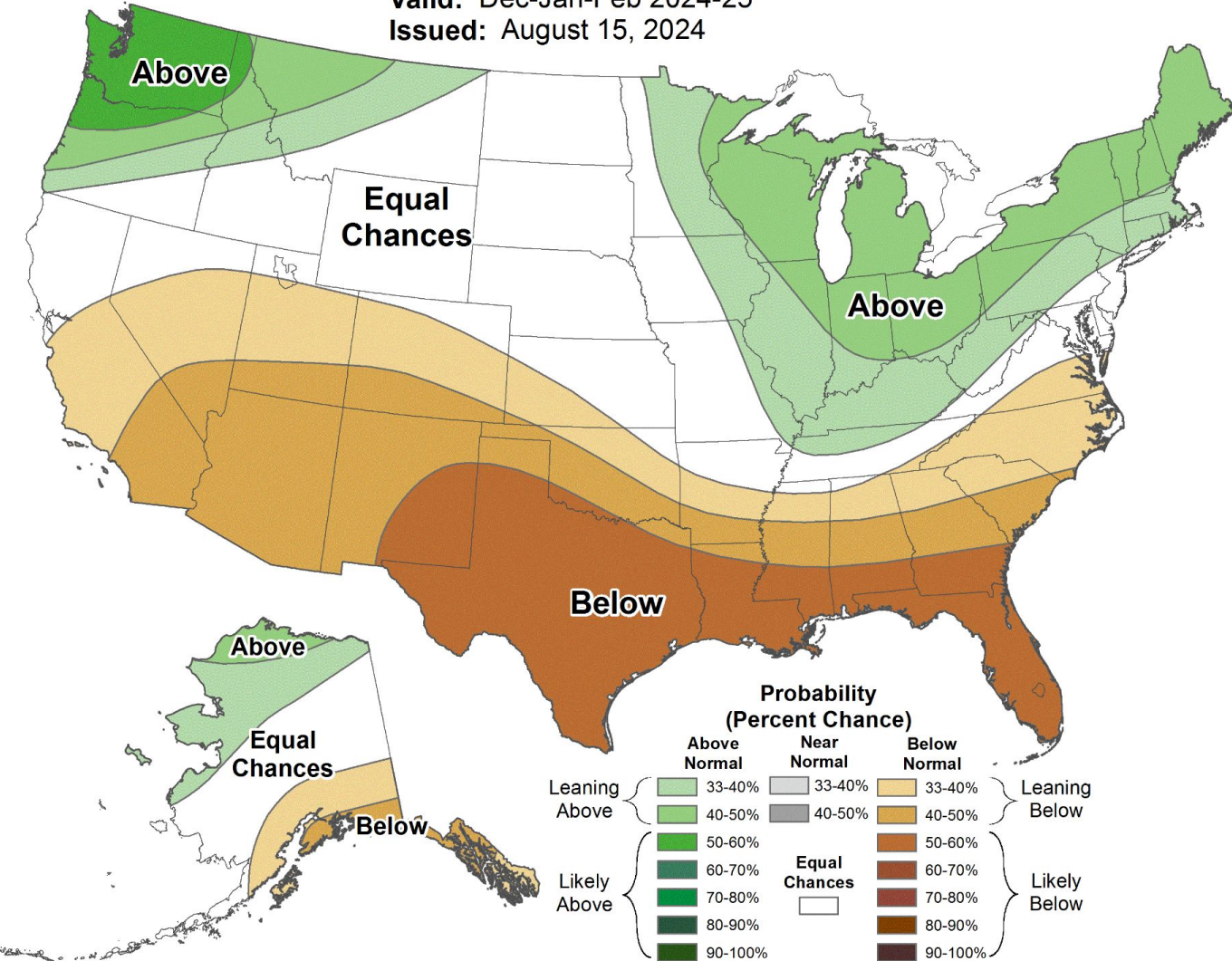
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Winter Precipitation Outlook

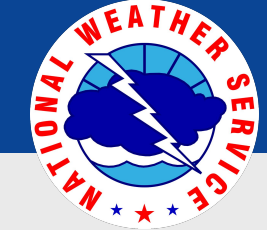


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Due to the expected La Niña conditions, this winter (DJF) is favored to have below normal temperatures (~34% chance). This does not mean there won't be any mild periods in the winter. There is also a lean toward above normal precipitation (34% chance) further east into north central Minnesota. Near to below normal temperatures overall would favor more events that are strictly snow compared to the varying types of precipitation last winter.





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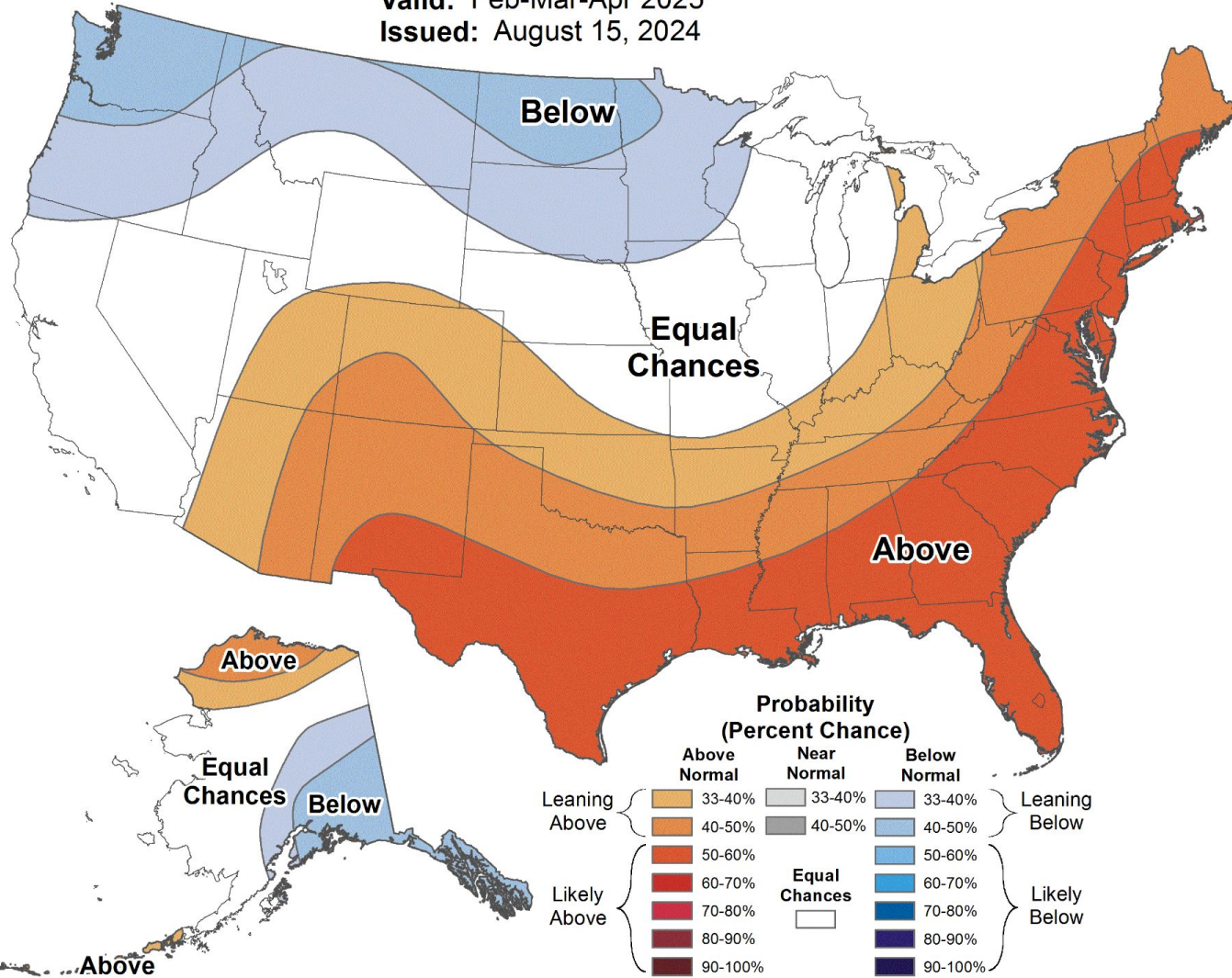
September Update



FMA Temperature Outlook



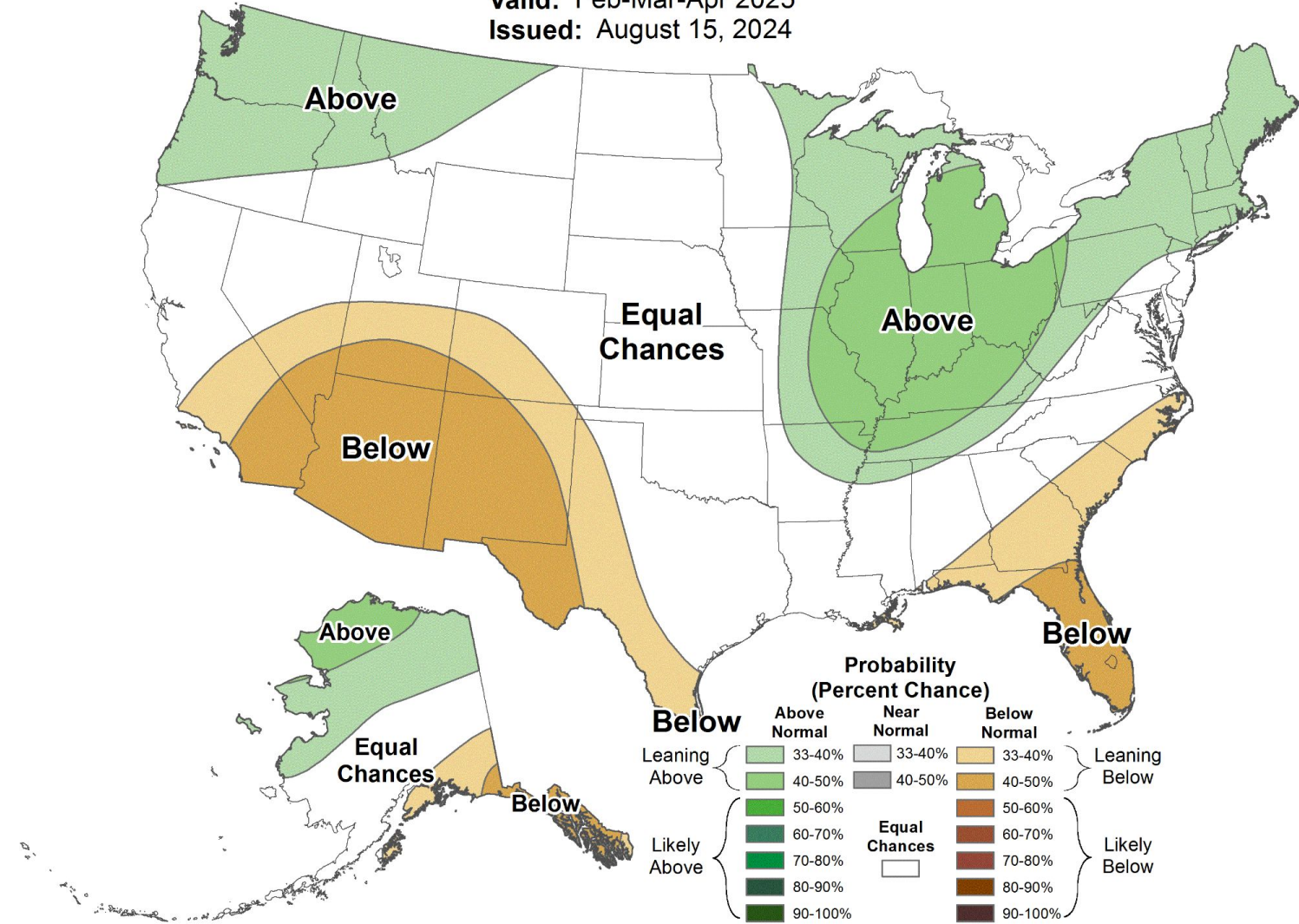
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FMA Precipitation Outlook



Valid: Feb-Mar-Apr 2025
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The strongest signal for below normal (does not mean the coldest) temperatures is during the late winter into the spring months (February, March, and April). Long term trends suggest increasing chances of below normal temperatures in the spring across North Dakota and Minnesota, which gives additional confidence that this period is favored for colder than normal temperatures.

