



THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

2024-25

WINTER OUTLOOK

By Mark D. Schneider

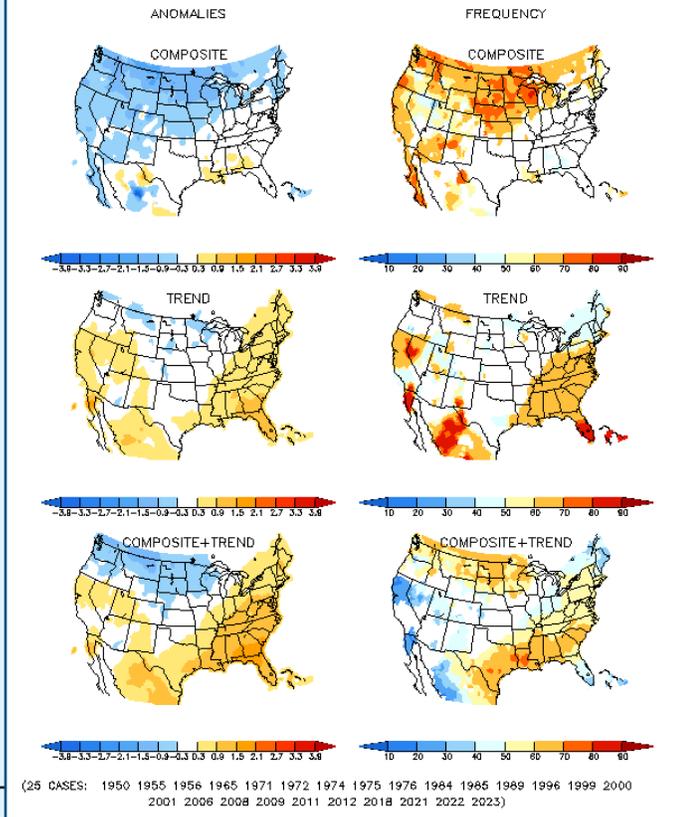
After last winter made record books as North Dakota's warmest winter, what can we expect for the upcoming winter season? An unusually strong El Niño made predicting warmer and drier conditions last winter relatively straightforward. Currently, the El Niño Southern Oscillation is transitioning from "ENSO-neutral" conditions to a La Niña that is forecast to last through next Spring. La Niña can bring cold, snowy conditions to North Dakota; however, there is significant variability in its influence on our winter seasons. To illustrate this variability, observe the 25 La Niña occurrences since

1950 and their December/January/February temperature and precipitation trends.

Notice that it's more common in the winter months for North Dakota to see below-normal temperatures, but that's only about 60 percent of the time. When looking at precipitation, there's a slight trend towards above-average, but the frequency almost appears to favor a coin flip. The one thing that is almost 100 percent certain for this upcoming winter? It will be colder than last year!

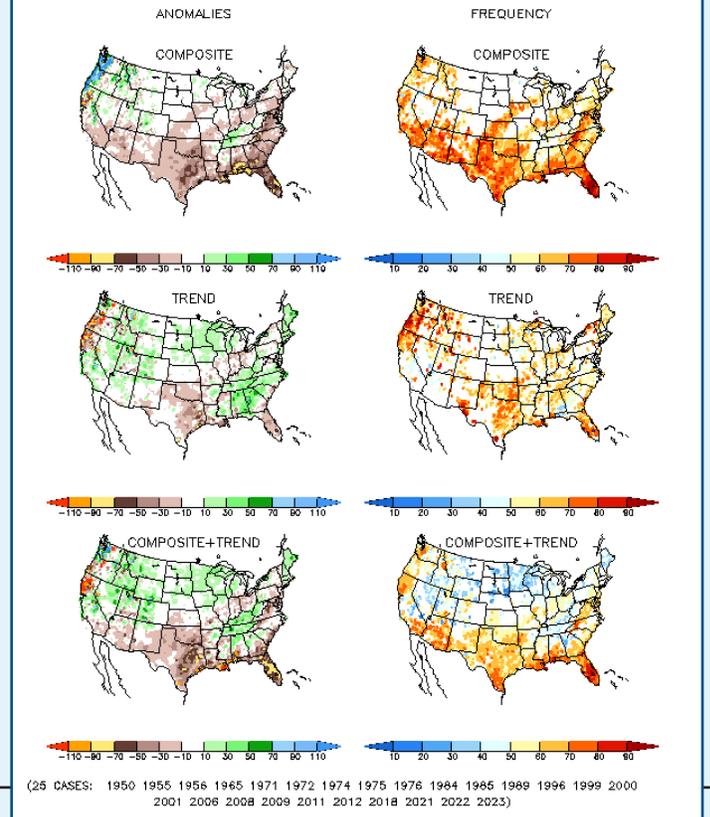
DJF LA NINA TEMPERATURE ANOMALIES (C) & FREQUENCY OF OCCURRENCE (%)

Source: NOAA/National Weather Service/Climate Prediction Center.



DJF LA NINA PRECIPITATION ANOMALIES (MM) & FREQUENCY OF OCCURRENCE (%)

Source: NOAA/National Weather Service/Climate Prediction Center.



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