Southern Oscillation Index in the US

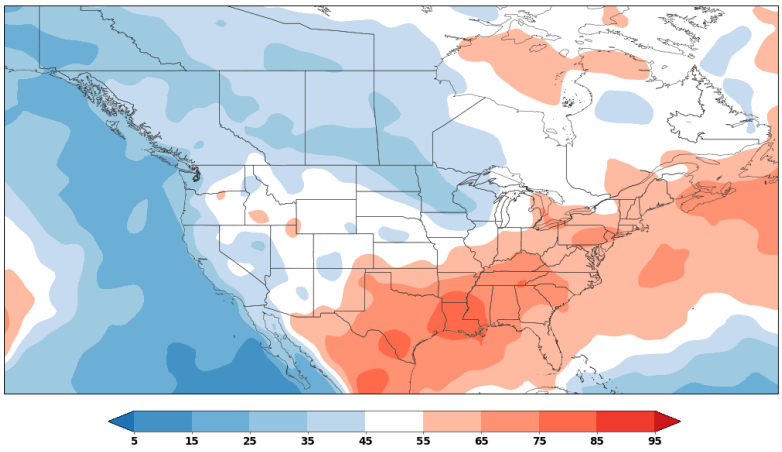
World Climate Service

Positive Phase - Winter

Corresponds to La Niña conditions: below-normal SSTs across the eastern Pacific Ocean

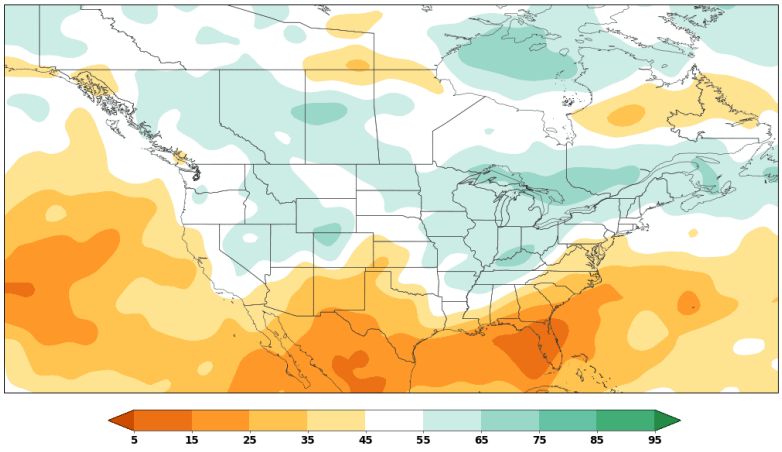
Percent of Years Having Above-Trend DEC-FEB 2m Temperature

1950 1954 1955 1961 1966 1970 1973 1975 1988 1996
1998 1999 2000 2007 2008 2010 2011 2020 2021 2022



Percent of Years Having Above-Normal DEC-FEB Precipitation (ERA5 Reanalysis)

1950 1954 1955 1961 1966 1970 1973 1975 1988 1996
1998 1999 2000 2007 2008 2010 2011 2020 2021 2022



Less Heat in the West & High Plains

More Heat in the East & South

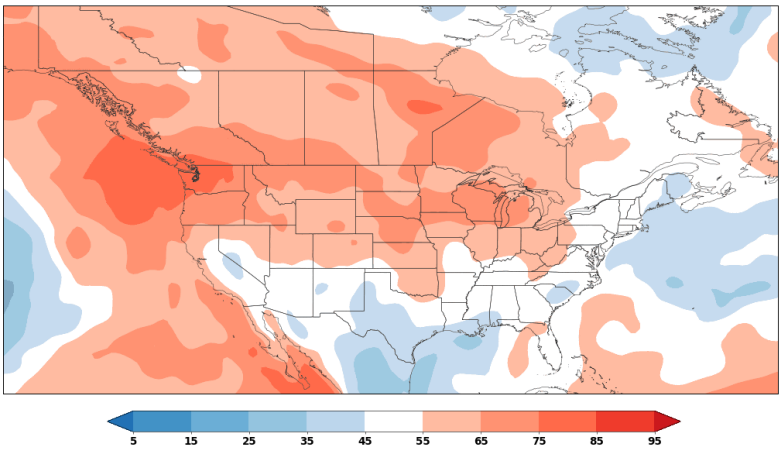
More Rain Across the Midwest

Negative Phase - Winter

Corresponds to El Niño conditions: above-normal SSTs across the eastern Pacific Ocean

Percent of Years Having Above-Trend DEC-FEB 2m Temperature

1951 1952 1957 1958 1963 1968 1969 1972 1977 1982
1986 1989 1991 1992 1994 1997 2002 2004 2009 2015



Percent of Years Having Above-Normal DEC-FEB Precipitation (ERA5 Reanalysis)

1951 1952 1957 1958 1963 1968 1969 1972 1977 1982
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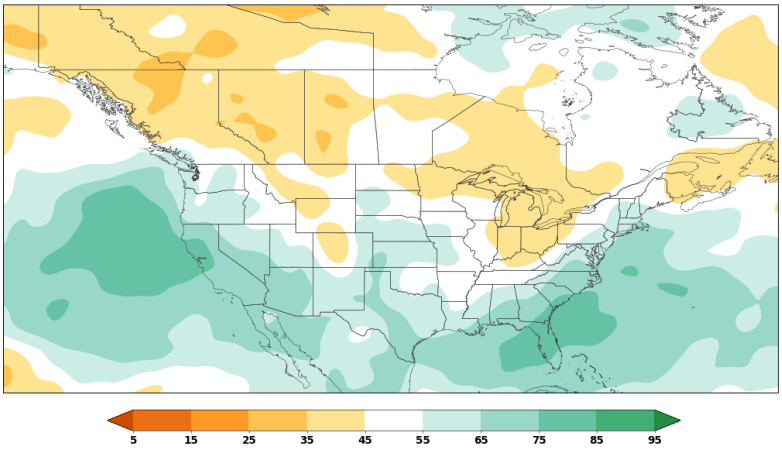

More Heat Overall

Less Rain in the Great Lakes

More Rain in the West & South

The SOI is only one factor in a complex system that influences the US climate. Long-range forecasts provided in the WCS Monthly Reports are the best guide to the season ahead.