

THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

EL NIÑO

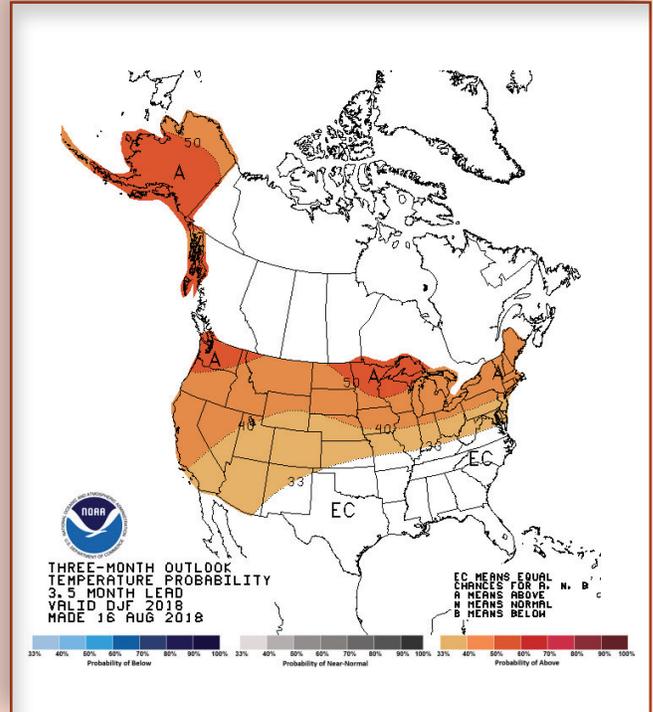
A Welcome Winter Reprieve?

By Mark D. Schneider

The Climate Prediction Center (CPC) issues monthly El Niño/Southern Oscillation (ENSO) diagnostic discussions and the August discussion forecasted a 60 percent chance of El Niño conditions for this fall (September through November) and a 70 percent chance for this winter (December through February). With a significant number of North Dakotans becoming "snowbirds" and moving to warmer locations over the winter to avoid the cold and snow, would the warmer and drier conditions associated with many El Niño events be a welcome occurrence?

Contrary to the CPC's El Niño forecast shown in the above image where an increased chance of warmer than normal conditions from December through February are predicted, the Farmer's Almanac has its own forecasting formula and is predicting a cold and snowy winter for the Midwest (including North Dakota). The Farmer's Almanac website states that mid-February could be especially cold. A strong El Niño can create a split-flow jet stream weather pattern where much of the cold, arctic air remains to our north instead of pouring down from Canada during the winter. If this scenario occurs, then February could experience milder temperatures instead of frigid ones.

The Pacific Decadal Oscillation (PDO), a long-term oceanic cycle that helps determine El Niño's strength based upon whether it's in a positive or negative phase, has been wavering back and forth from slightly positive to slightly negative. This could mean minimal influence from the PDO on El Niño for this coming winter. If the PDO is strongly positive, then El Niño is traditionally enhanced or strengthened and the opposite is true when it is negative.



Many of North Dakota's producers (unless they're growing winter wheat crops that need snow cover) would gladly do without a snowy winter if they could get good spring rains for the next growing season. As we know from experience here in North Dakota, winter snows can be essential for adequate growing season soil moisture in times when spring precipitation is sparse.

El Niño isn't always a welcome event though. Bill Abeling, lead forecaster with the National Weather Service (NWS) Bismarck, commented that "El Niños can lead to more periods of freezing drizzle and freezing rain, which have adverse impacts on North Dakotans. We can still have cold weather outbreaks and snowier periods during an El Niño event."

The effects of this winter's potential El Niño are yet to be seen. We can monitor the monthly average temperatures and precipitation this winter to observe whether or not North Dakota does in fact experience warmer, drier conditions.