

Above left: National forecast probability (A) and below (B) average temperature, November, 2012. **Above right:** National forecast probability for above (A) and below (B) average precipitation, November, 2012. EC=Equal chances (33.3 percent) of above, near average, or below average. Percentage values “weigh” the above or below average levels accordingly. For example, a 50% or higher above average probability might mean a 25% or less chance for near average or below average conditions.

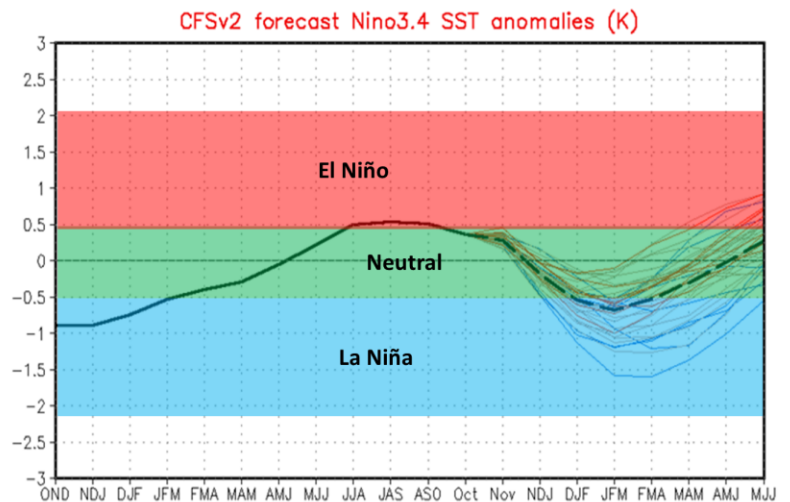
RGV Weather for November and Beyond: Tough Call Dry Season Arrives; Outlook Leans Toward Slightly Warmer than Average

Little Hope for Notable Drought Improvement

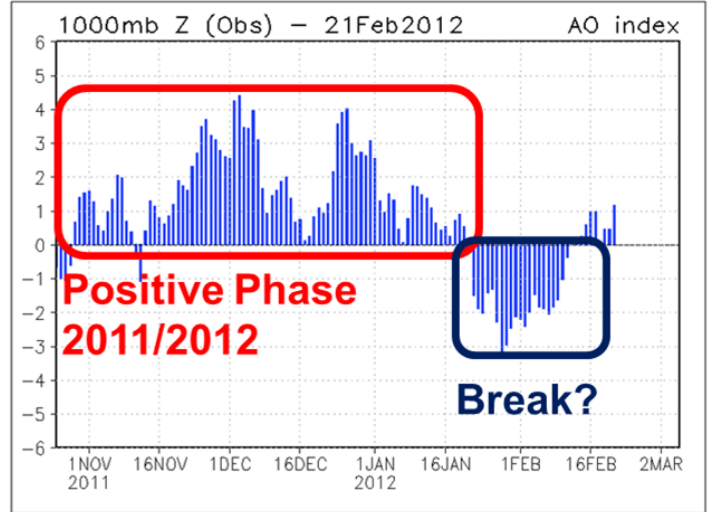
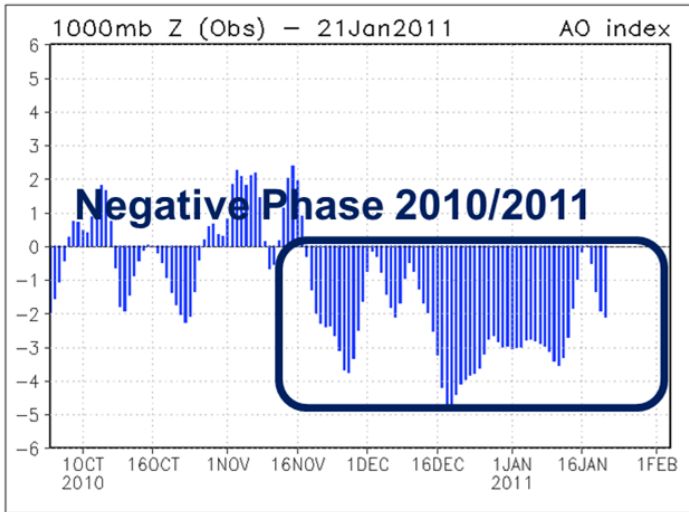
Overview

As the days continue to shorten and the northern hemisphere cools into late autumn and early winter, the forecast for the Rio Grande Valley is highly uncertain. A brief period of El Niño conditions at the end of summer (August) gave guarded hope for an increased potential for a rain-producing subtropical jet stream through the winter months. That hope was dashed in October, when water temperatures in the east central tropical Pacific cooled to or just below average. Long range forecasts by the Climate Forecast System trend neutral for winter, perhaps inching back into La Niña by the tail end of winter (February; trend at right). By removing a critical source of energy for welcome winter rainfall in a season (November to March) that typically has less than 8 inches of precipitation, the hope for any significant improvement to the two year drought is diminishing. By early November, reservoir pool levels at Amistad International had fallen below 50% capacity; levels at Amistad had leveled off between 20 and 25% capacity – partly due to releases from Amistad, a couple hundred miles upstream. Such low capacities combined with an increasing likelihood of another warm to hot spring could spell significant water shortages – or worse – for growers, ranchers, and an increasing number of Rio Grande Valley residents in 2013.

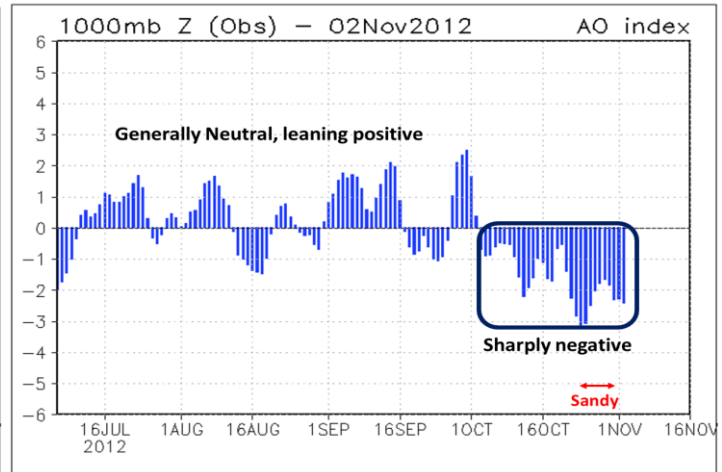
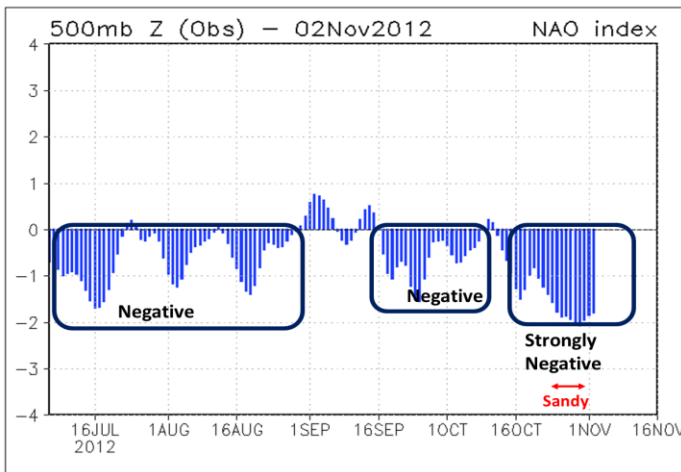
El Niño/Southern Oscillation (ENSO) is only one factor used to help predict seasonal weather. Intraseasonal teleconnections, defined as a “significant positive or negative correlation in the fluctuation of a field (such as pressure or temperature) at widely separate points” (Glossary of Meteorology, 2002), can help dictate the trend of a season, or longer. Two such teleconnections that have a known impact



on winter weather are the [Arctic Oscillation \(AO\)](#) and its close “cousin”, the [North Atlantic Oscillation \(NAO\)](#). Unfortunately, the predictability of the onset of a distinct phase of the AO/NAO is generally two weeks, sometimes four weeks, but almost never seasonally. Each of the past two winters featured similar phases of ENSO (La Niña), with nearly opposite phases of the North Atlantic Oscillation (below). The prolonged negative phase of the AO/NAO from late November 2010 through the end of January 2011 may have contributed to the arctic plunge which brought up to 60 hours of freezing temperature and a [memorable ice storm](#) to the Valley to begin February. The prolonged positive phase of the AO/NAO from late November 2011 through the end of January 2012 may have contributed to the warm and humid conditions that dominated the season.



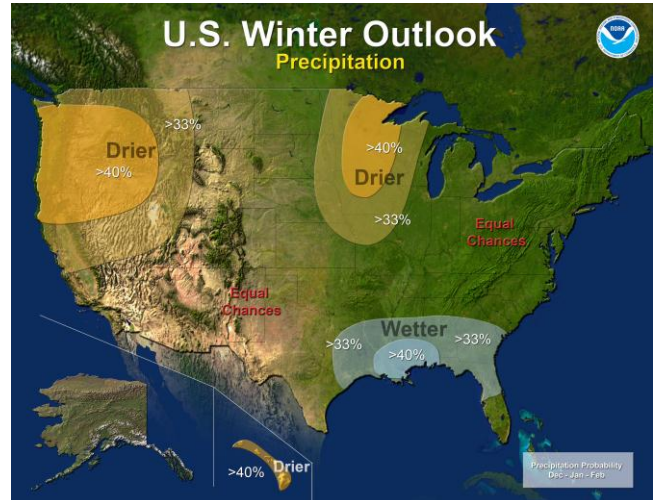
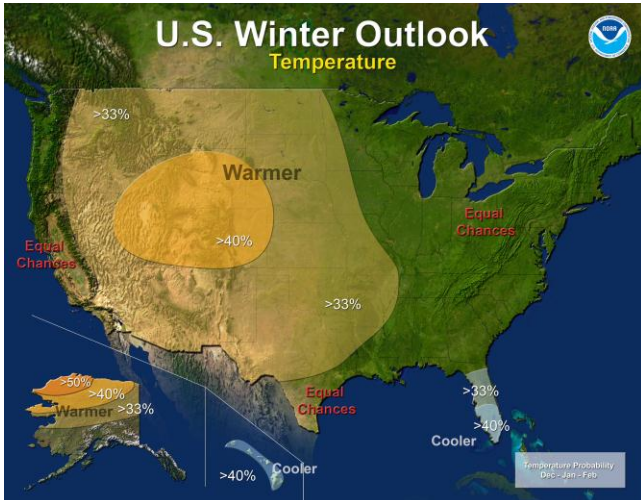
How will the AO/NAO puzzle pieces evolve for the winter of 2012/2013? We wish we knew. For what it’s worth, the phase of the NAO has been predominantly negative since June, 2012; the AO has fluctuated between low index values of negative and positive phases, with a recent sharp negative drop which not coincidentally timed out with “Superstorm” Sandy along the U.S. east coast as October ended.



The early “line” on Winter 2012/2013

The “hedge” is for a combination of a trend toward the negative side of the neutral phase of ENSO – perhaps edging toward La Niña as early as February. The phase of the AO/NAO is anyone’s guess, but long range trends hint at additional multi-week periods of the negative phase. Such a combination is conducive to a few bouts of modified air from the Canadian prairies plunging down the east side of the Rockies between December 15th and February 15th, punctuating an otherwise mild to warm winter across the Valley. Should the national forecast (below) of a warmer and somewhat drier than average winter verify for the Northern/Central Plains into the Rockies, snow pack would be limited and allow more modification of Canadian air masses. While a couple of minor agricultural freezes may occur, the chances for a significant, widespread hard

(temperatures below 28°F for several hours) or killing (temperatures well into the 20s or 10s for a day or more) freeze is virtually nil. Stay tuned!



Into the Heart of November

Model data on the 2nd of the month suggested another prolonged period of warm and generally dry weather (top of next page). A touch of summer – still humid without the oppressive feel of October - will likely be punctuated by a drying front around Election Day that could bring a period of warm, dry days and clear, comfortable nights before south winds return some humidity toward mid month. Afternoon temperatures will range from the 80s to lower 90s, with early morning temperatures in the 60s to around 70 until Election Day, and 50s to around 60 for a few days (7th through 9th) before recovering back to the 60s or higher for the Veterans’ Day Weekend. Beyond mid month, fast moving systems lifting north from southern California toward the Central and Northern Plains may bring seasonal temperatures (highs in the 70s to lower 80s and lows in the 50s to around 60) just prior to Thanksgiving week. Otherwise, the month is leaning toward yet another above average one for temperatures, and average to below average for precipitation.

Temperature Probability through mid November



Precipitation Probability through mid November



Keep Updated

You can find national updates of the weekly, bi-weekly, monthly, seasonal, and beyond temperature and precipitation forecasts [here](#). As the season evolves – especially if significant trends develop in one direction (warmer or wetter) or another (colder or drier). Check our [El Niño/La Niña page](#) for local updates should ENSO trend in one direction more sharply than currently forecast.