## Winter 2015/16 - El Niño



A strong El Niño condition is brewing in the tropical Pacific and that's the big weather story heading into the winter of 2015/16! The current El Niño weather phenomenon is expected to peak between October and January and could turn into one of the strongest on record. Back in 1997/98, there was a huge El Niño event and conditions right now rival that year. We'll have to wait and see if the event lives up to the current hype.

## What is El Niño?

El Niño is caused by a shift in the distribution of warm water in the Pacific Ocean around the equator. Usually the trade winds blow strongly from east to west causing warmer water to pile up in the western part of the Pacific. This pulls up colder water from the deep ocean in the eastern Pacific. However, in an El Niño, the winds pushing the water get weaker and cause the warmer water to shift back towards the east. This causes an abnormal warm water mass in the eastern Pacific closer to the U.S. The warm water mass is a catalyst for weather events.

## What are the Usual Results of a Strong El Niño?

As with most weather events, it will be a story of "haves and have nots" – there will be winners and losers. In a typical El Niño, the following events can occur:

- Central America experiences higher than normal precipitation
- Western Pacific regions experiences less volatile weather
- California experiences much higher than normal precipitation (which they desperately need right now). On the downside, they can have increased damaging landslides
- Increased precipitation across the southern U.S.
- Less snowfall in the northern U.S.
- Above normal temperatures in the northern U.S.

Below is a graphic showing temperature rankings for the peak winter period (Dec-Feb) during past strong El Niño events (also referred to as "ENSO" event meaning El Niño Southern Oscillation). If the past is a good indicator, this would suggest a high probability of warmer than normal temperatures across the northern U.S.



Likewise, below is a graphic showing precipitation rankings for the peak winter period (Dec-Feb) during past strong El Niño events.



Below is NOAA's most current winter prediction for Dec15-Feb16.



While there will be the occasional cold blasts from time to time during the winter, overall, we are not expecting a harsh winter.