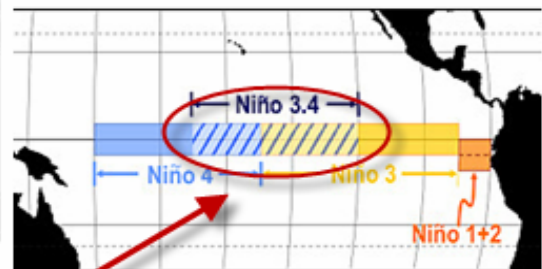
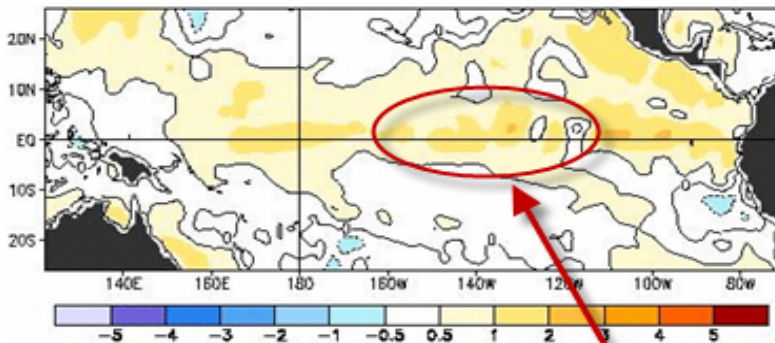


It's well publicized now that an El Niño Winter is looming ahead. The question still remains: How strong will the El Niño be? Weak to moderate ($+1 < 1.5$), moderate ($+1.5 < 2.0$), moderate to strong (~ 2.0), or strong (> 2.0). The numbers listed represent sea surface temperature (SST) anomalies (i.e. difference from normal) along the equatorial Pacific, specifically the Niño 3.4 region, which is SW of Hawaii to the longitude of the California coast (red oval on top two charts). The latest observed sea surface temperature anomalies (upper-left chart) clearly shows temperatures within this region are running on average about $+1(^{\circ}\text{C})$ above normal (a weak to moderate El Niño). The latest model runs suggest the current El Niño conditions will strengthen and persist into Winter 2010. A few models are projecting a strong El Niño ($\sim +2.5$, which is close to the level that occurred in 1998), but just as many show it remaining close to $+1$. The latest model consensus mean (blue line on large graph below) shows it close to $+2.0$ from January 2010 through March 2010. Recall that during weak to moderate El Niño years, Northern California is split 50/50 between above normal and below normal precipitation. Southern California stands a much better chance of receiving above normal precipitation if this winter's El Niño ends up in the $+1$ to $+1.5$ range... or even a 2.0 . The two famous strong El Niños of the recent past, in which record rainfall totals were observed across the entire state, were 1998 and 1983. Both were close to $+3.0$. To really "guarantee" a wet year for Northern California, we probably need to see $+2.5$, and right now the model consensus isn't quite there. Thus, it's still a little early to get too hyped up about a wet winter. However, there is reason to be optimistic that we may in fact end up with a stronger El Niño (i.e. $> +2.0$): The most recent model runs are trending stronger than they were last spring (the "blue line" then was just a little over $+1.0$). We'll just have to wait and see if the strengthening trend continues as we transcend through the fall.

Observed Sea Surface Temperature Anomalies ($^{\circ}\text{C}$)



"Niño" regions along the Equatorial Pacific

7-day Average Centered on 26 August 2009

Forecast Niño3.4 SST anomalies from CFS

