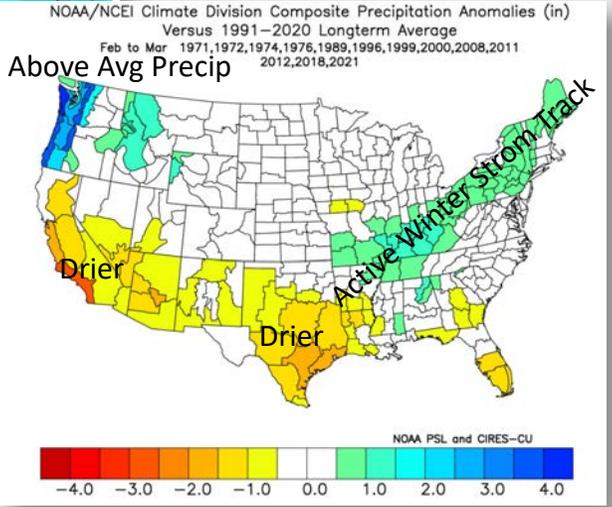
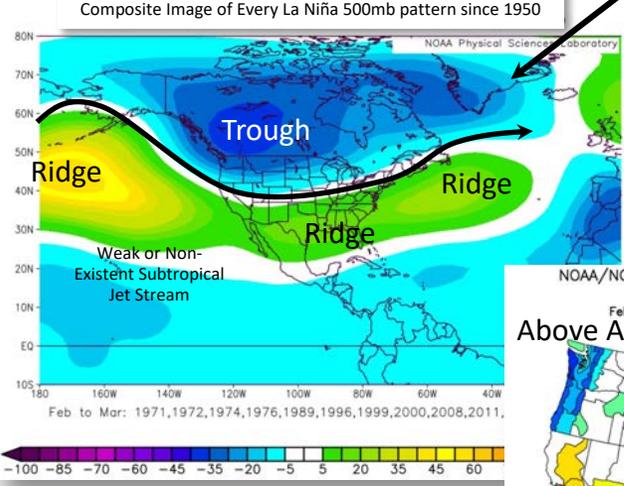
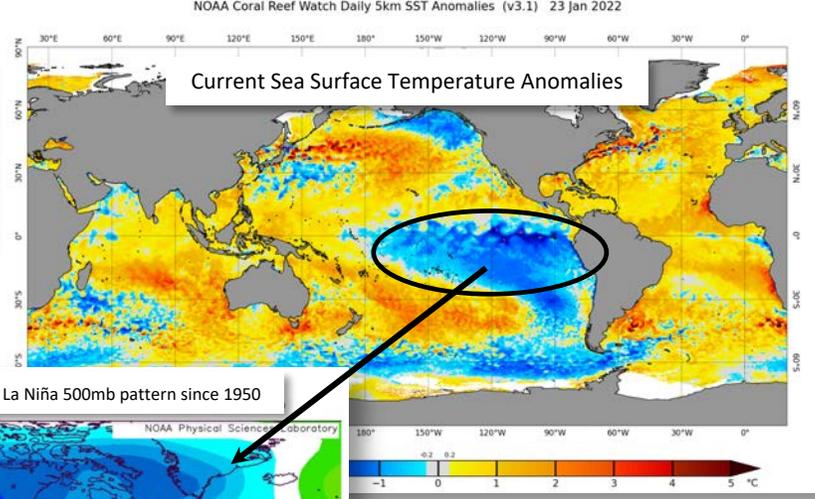


La Niña's influence on the Feb-March Pattern (Historical Analysis)

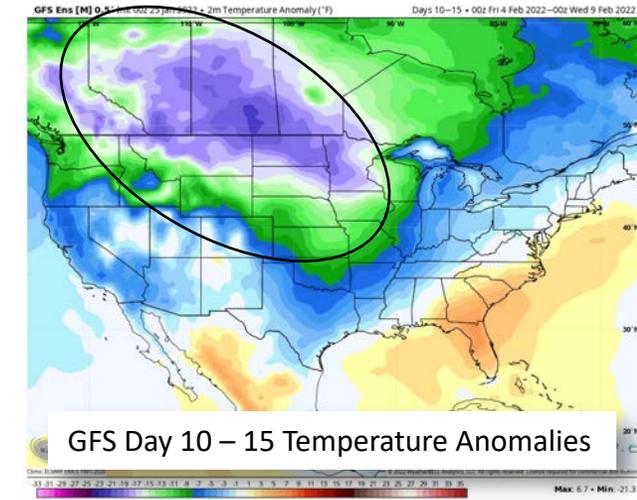
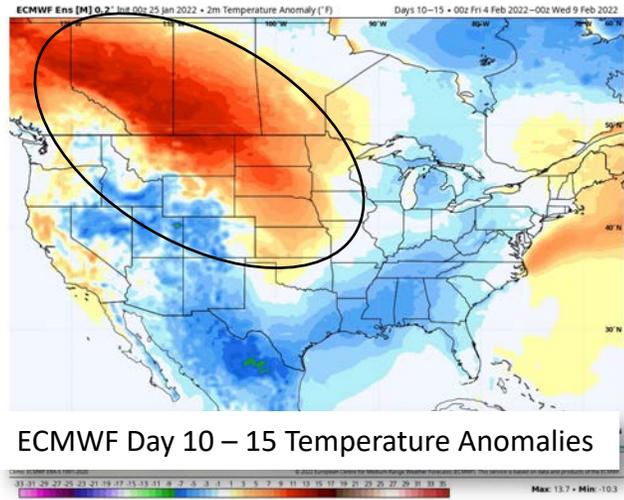
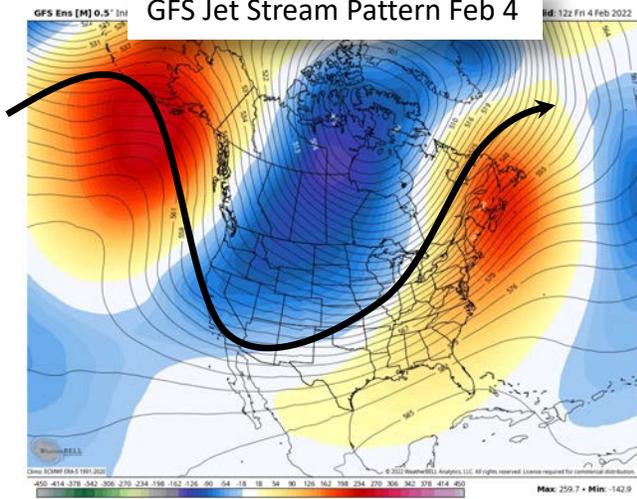
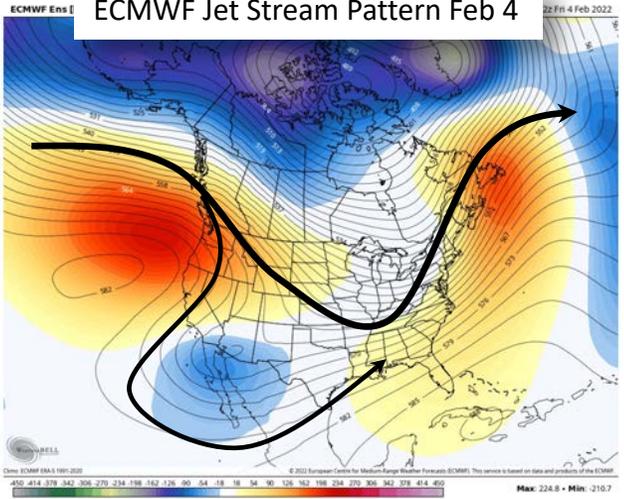
If the current east Focused La Niña is the most dominant global teleconnection with our weather patterns, this is what we would expect.



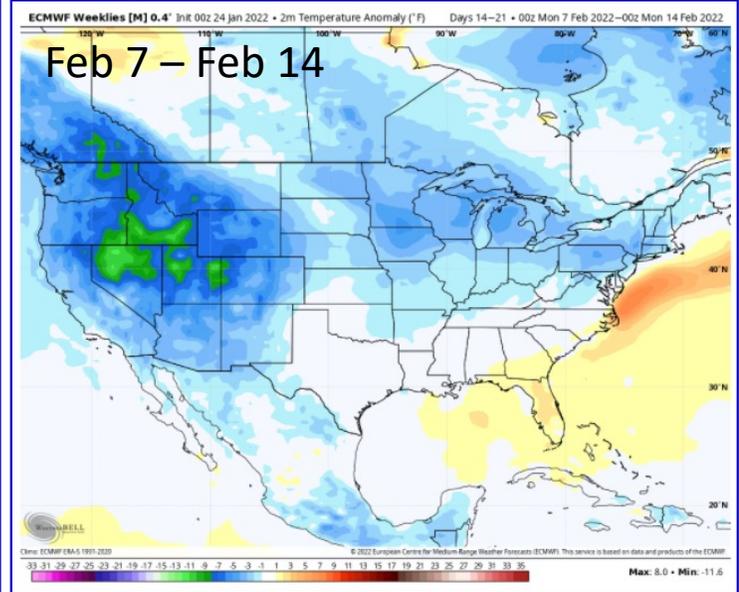
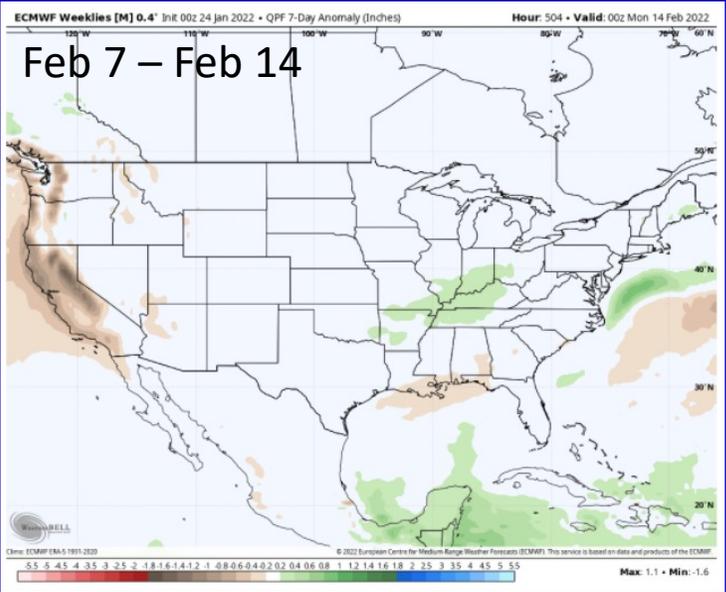
La Niña 's influence on the Feb and March jet stream historically favors above avg precip in the Pacific NW and Ohio Valley to Northeast. Drier from California to Texas (weak subtropical jet)

Ensemble models from the ECMWF and GFS do not agree on the jet stream pattern for Day 10-15 (Feb 4-8).

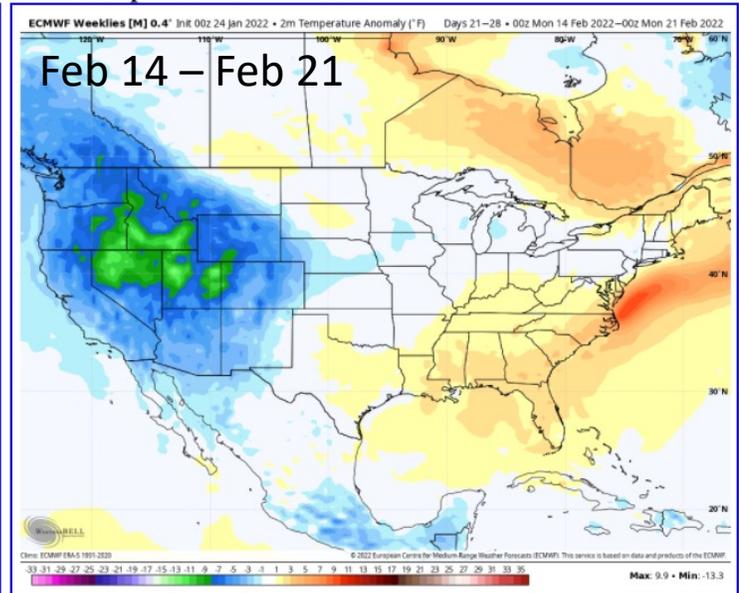
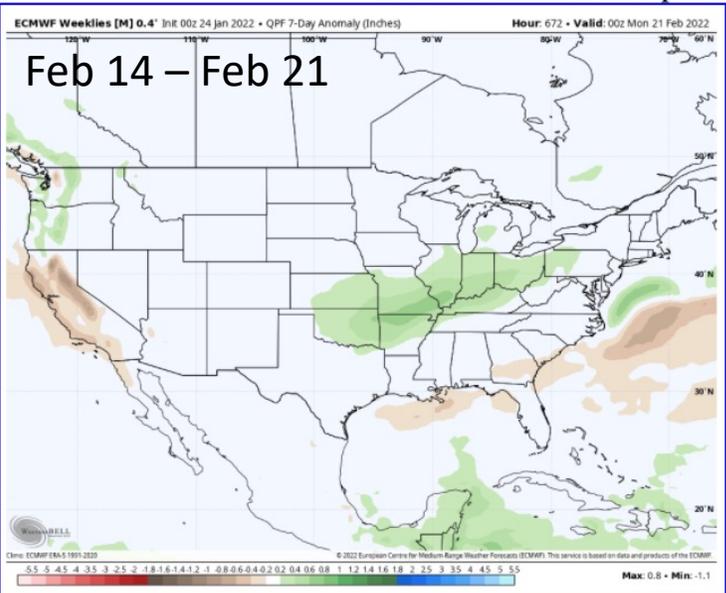
The differences are likely in how the models have been initialized and in their forecast of the MJO. The ECMWF keeps the MJO in "null space" through Feb 7 while the GFS forecasts the MJO to emerge in phase 4-5-6.



ECMWF Week #3 Precipitation and Temperature Anomalies



ECMWF Week #4 Precipitation and Temperature Anomalies



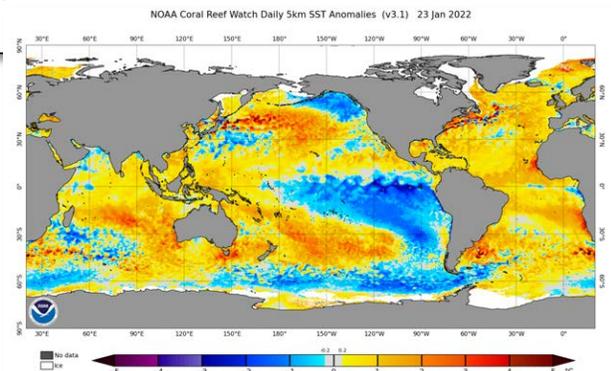
The latest ECMWF day 16-30 outlook (Feb 7 – 21) kept in line with previous forecasts. It favors a very active **MidSouth → Ohio/Tennessee Valley → Northeast** winter storm track and better onshore flow in the **Pacific Northwest**. It is notably drier in **California** and remains very cold throughout the **West and Canadian Prairie** for the front half of February. Ridging over the **Southeast** is a possible (and common in La Niña winters) which is the reason for the return of mild air after what has been a cold Jan.

Factors Controlling the February Pattern

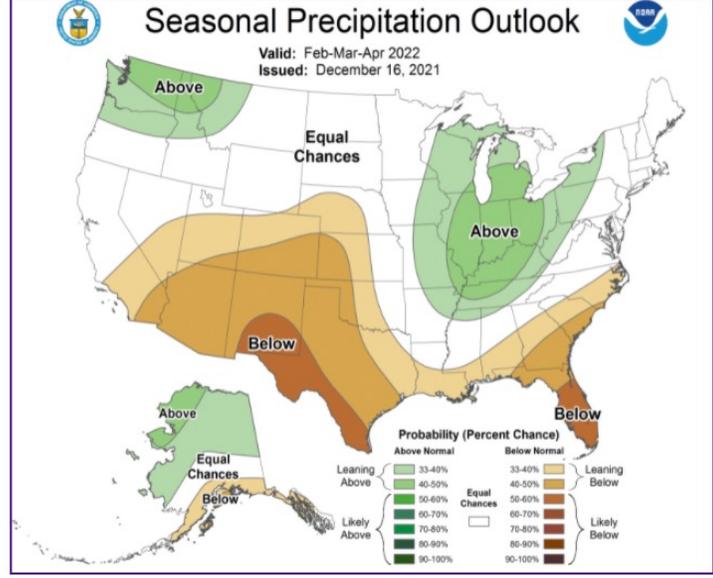
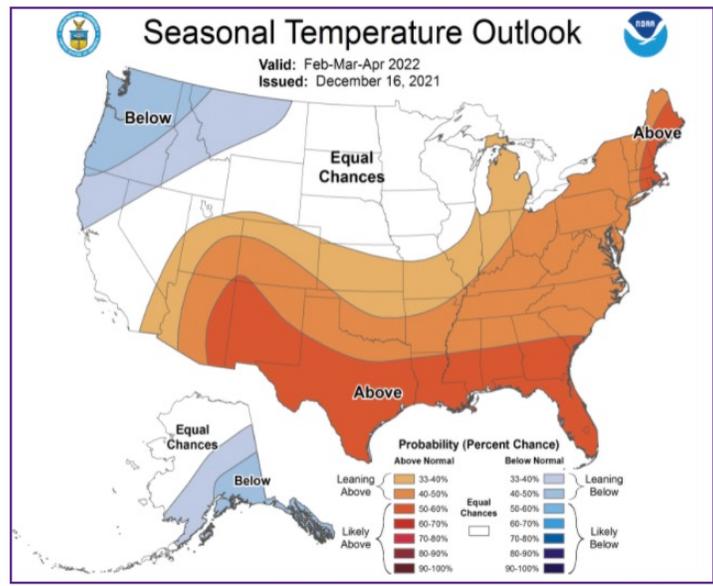
1. There has been a net loss of zonal momentum in the global flow. This often results in a slower jet stream that is more challenging to predict. This pattern also favors blocking near the US coastlines (both east and west).
2. There is very little model consensus on the behavior of the MJO. It is currently in “null space” and the MJO does not let it emerge from “null space” through the next 15 days. The GFS takes the MJO into Phase 4-5-6 which could be the correct solution (and the newer runs from the ECMWF may fall in lines with this). This could result in high-over-low blocking along the **West Coast**.
3. La Niña is slowly fading but is still influencing this pattern. “East focused La Niña’s” favor an active **MidSouth-Ohio River Valley-Northeast** winter storm track with above average precipitation in late January and Early February. I am not expecting significant drought relief for the **Southern Plains nor am I anticipating above avg precipitation for California**.

Failure Points: 1. If the MJO breaks returns to Phase 7-8, the entire Pacific jet stream pattern will adjust back to what we had in January. 2. An un-forecasted Polar Vortex Disruption is always possible, but not likely right now. 3. Development of a strong subtropical branch of the jet stream. If one does form, **Calif thru the South** will have a very volatile and wet/snowy late January. I’m also watching for **N. Atlantic** blocking.

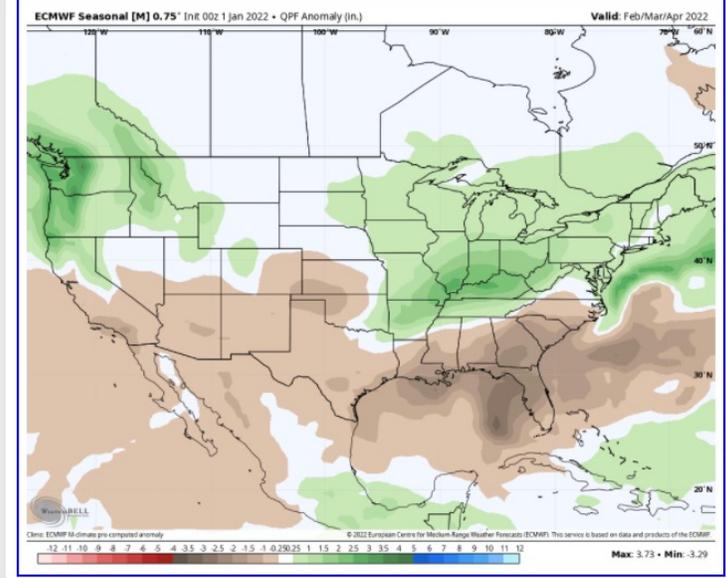
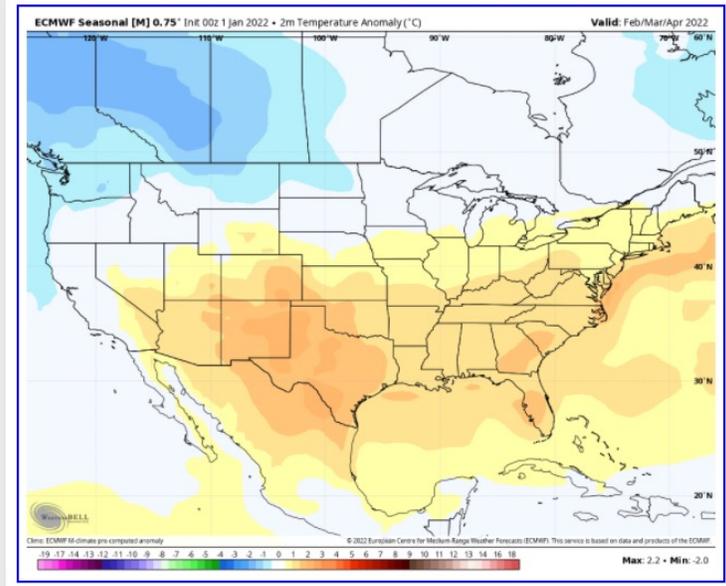
La Nina Update:
 30-day SOI: 2 (this is a neutral signal)
 Strength: Fading over the next 3-4 months



CPC



ECMWF



NMME

