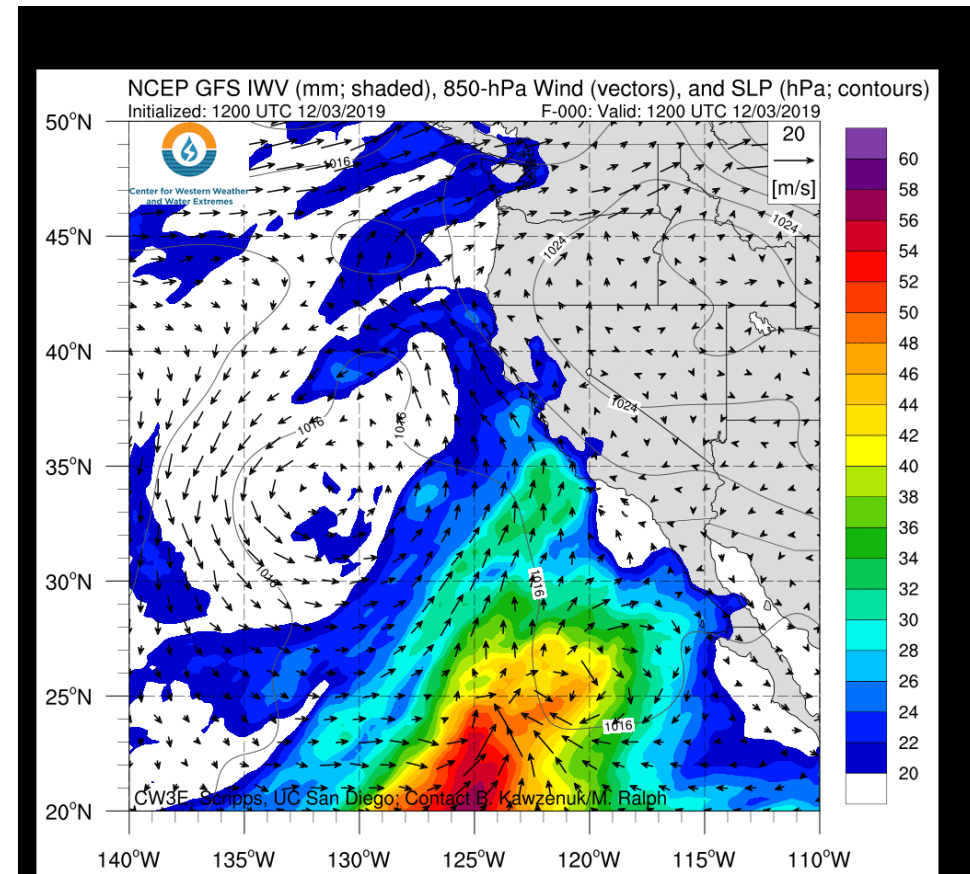
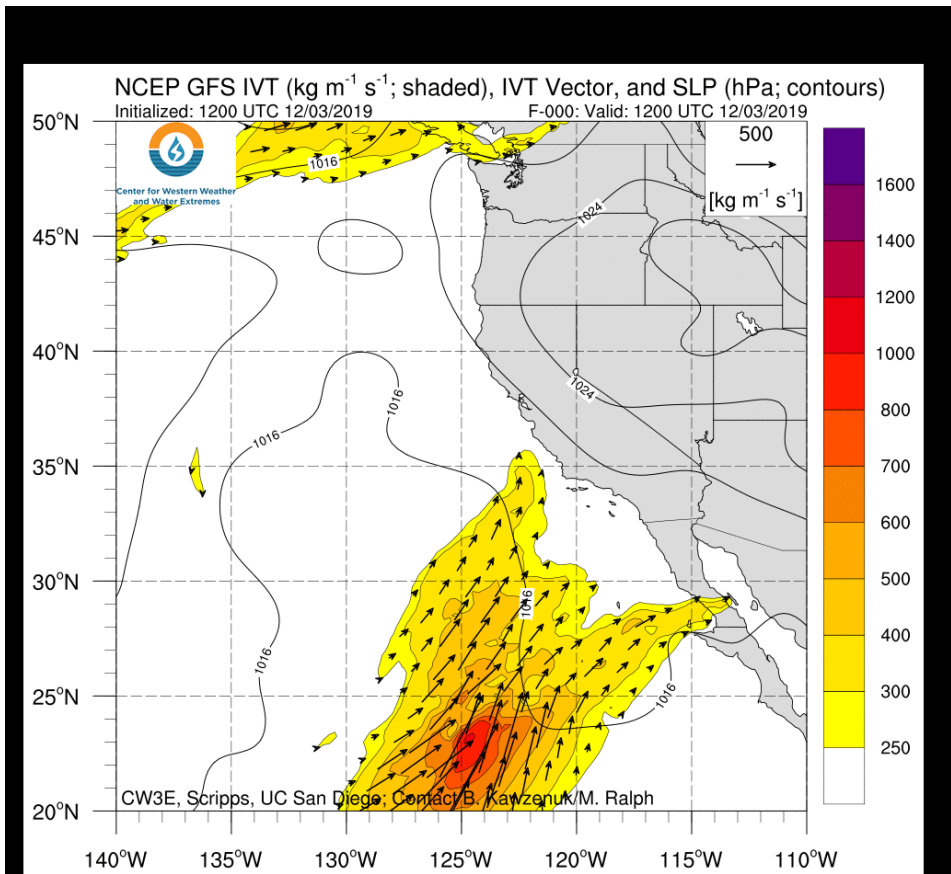


Active weather pattern in California will continue through the end of this week

- Multiple landfalling ARs are expected to bring additional heavy precipitation to California during the next 5 days
- There is increasing forecast confidence in the likelihood of another landfalling AR in Southern CA on 7–8 Dec
- Long-range ensemble forecasts suggest a possible shift in the weather pattern next week

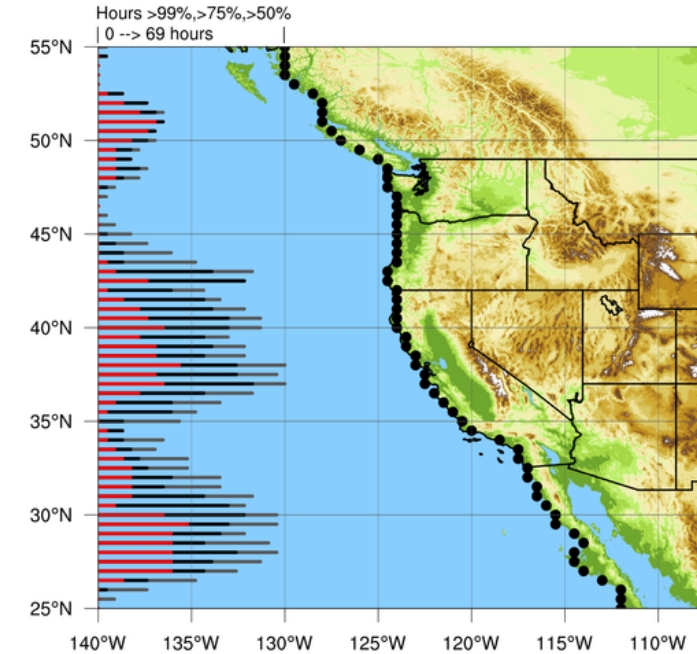
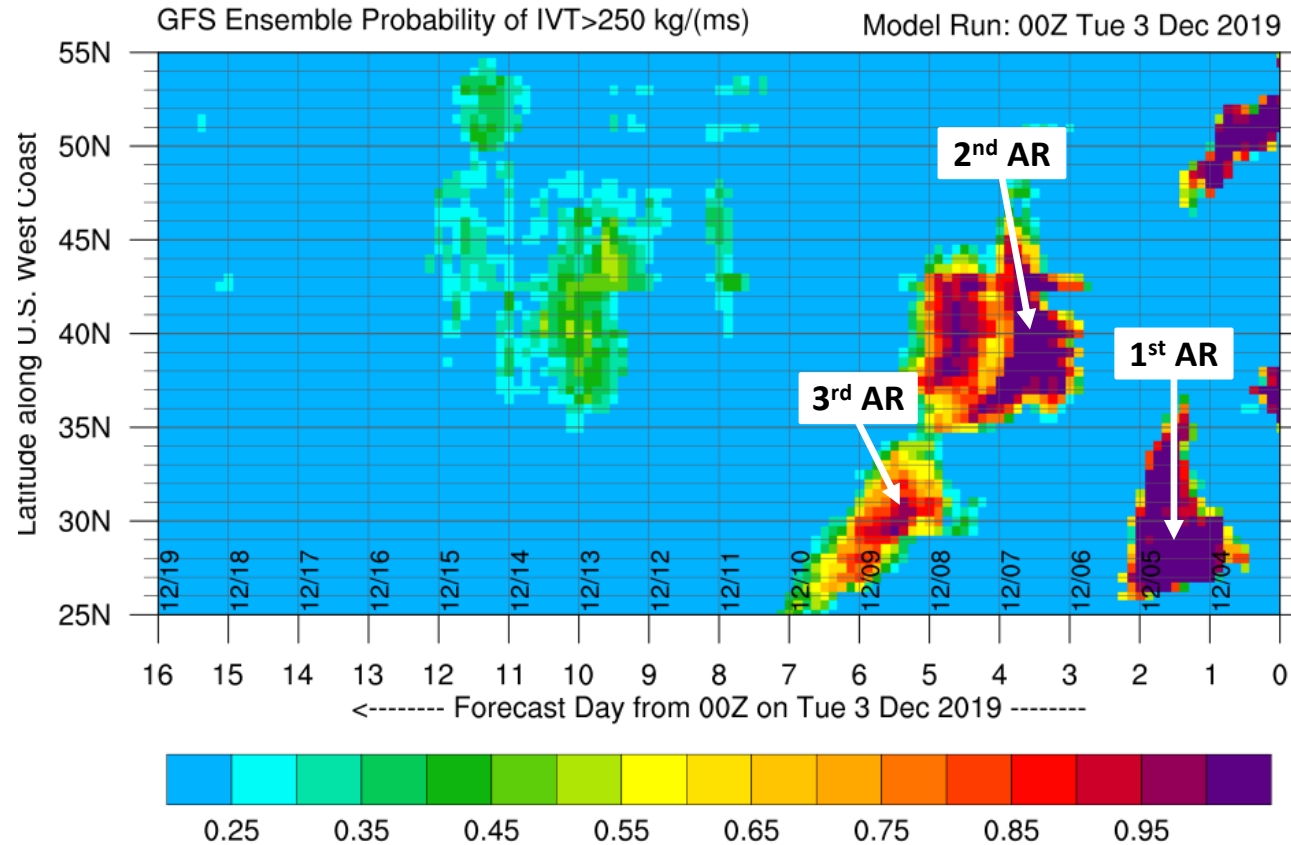


CW3E AR Outlook



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- AR landfall tool shows high confidence (100%) in AR conditions over the Baja Peninsula on 3–4 Dec (with a brief period of AR conditions in Southern CA on 4 Dec)
- AR conditions are also very likely (> 90%) over Central and Northern CA on 6–7 Dec, but there is uncertainty in the duration and spatial extent
- Forecast confidence in AR conditions over southern CA on 7–8 Dec is increasing (50–90%), but there is uncertainty in the timing and location
- GEFS long-range forecasts suggest a period of less active weather in Southern CA but potential for AR activity over Northern CA and the Pacific Northwest beginning next week

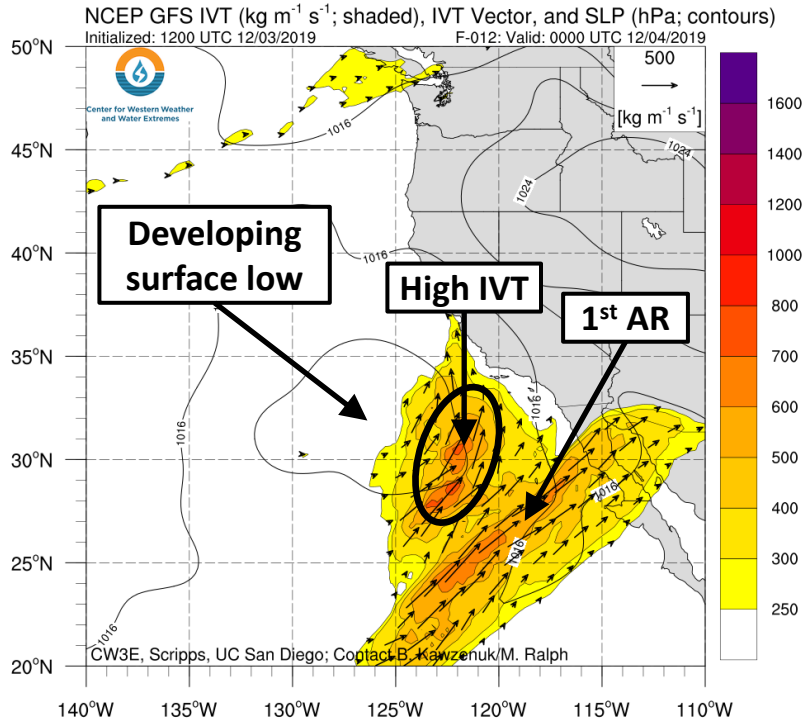
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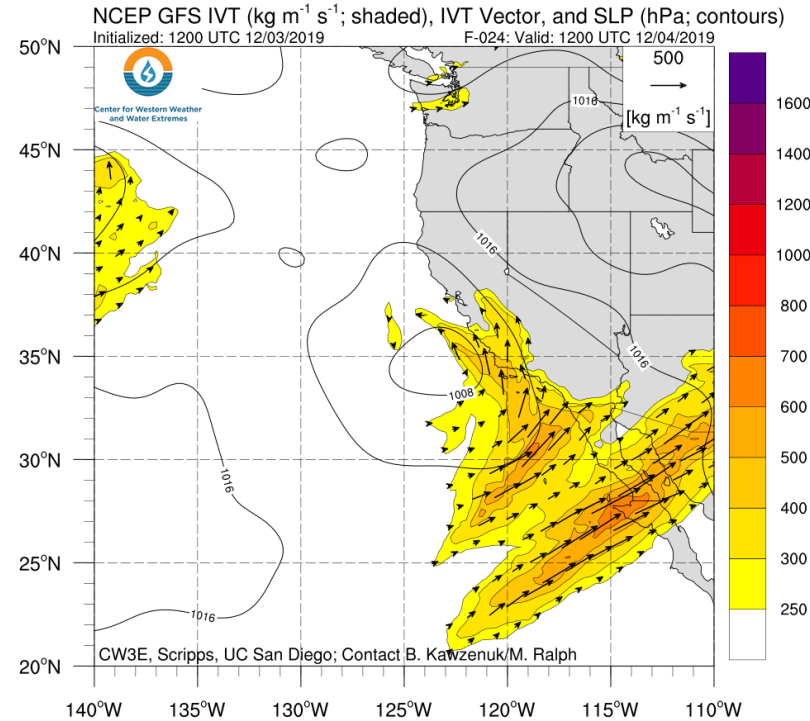
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GFS IVT Forecast for 1st AR

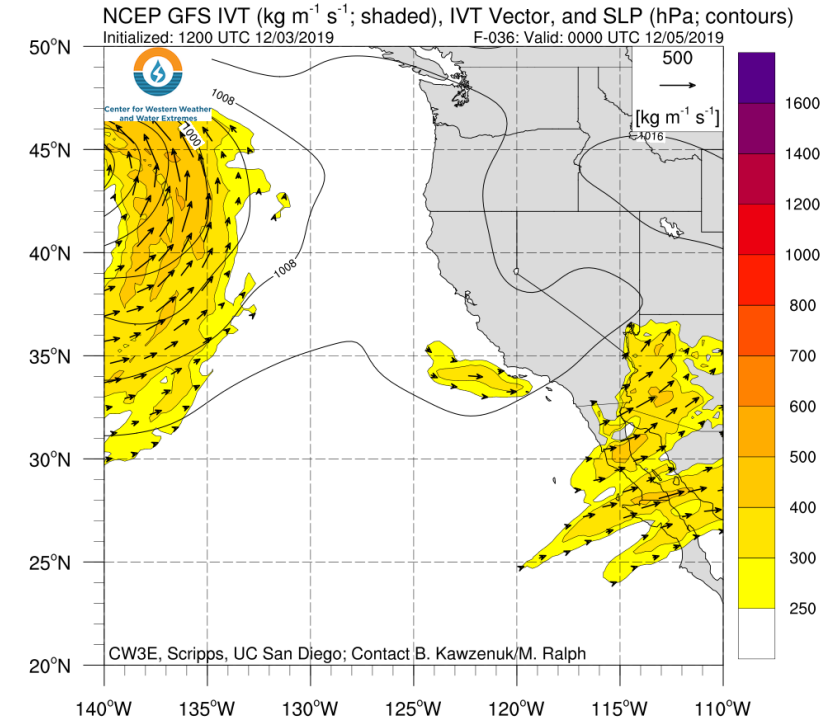
F-12 Valid: 0000 UTC 4 Dec



F-24 Valid: 1200 UTC 4 Dec



F-36 Valid: 0000 UTC 5 Dec



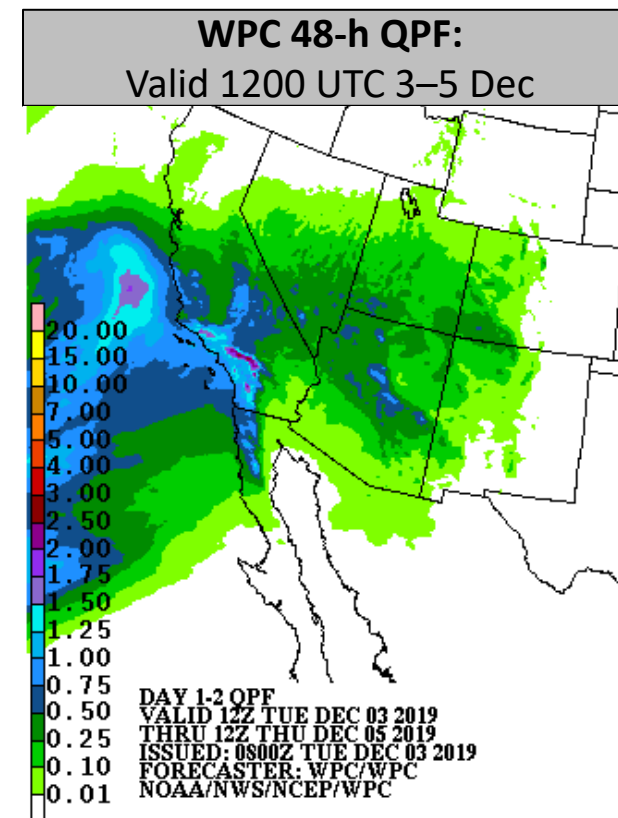
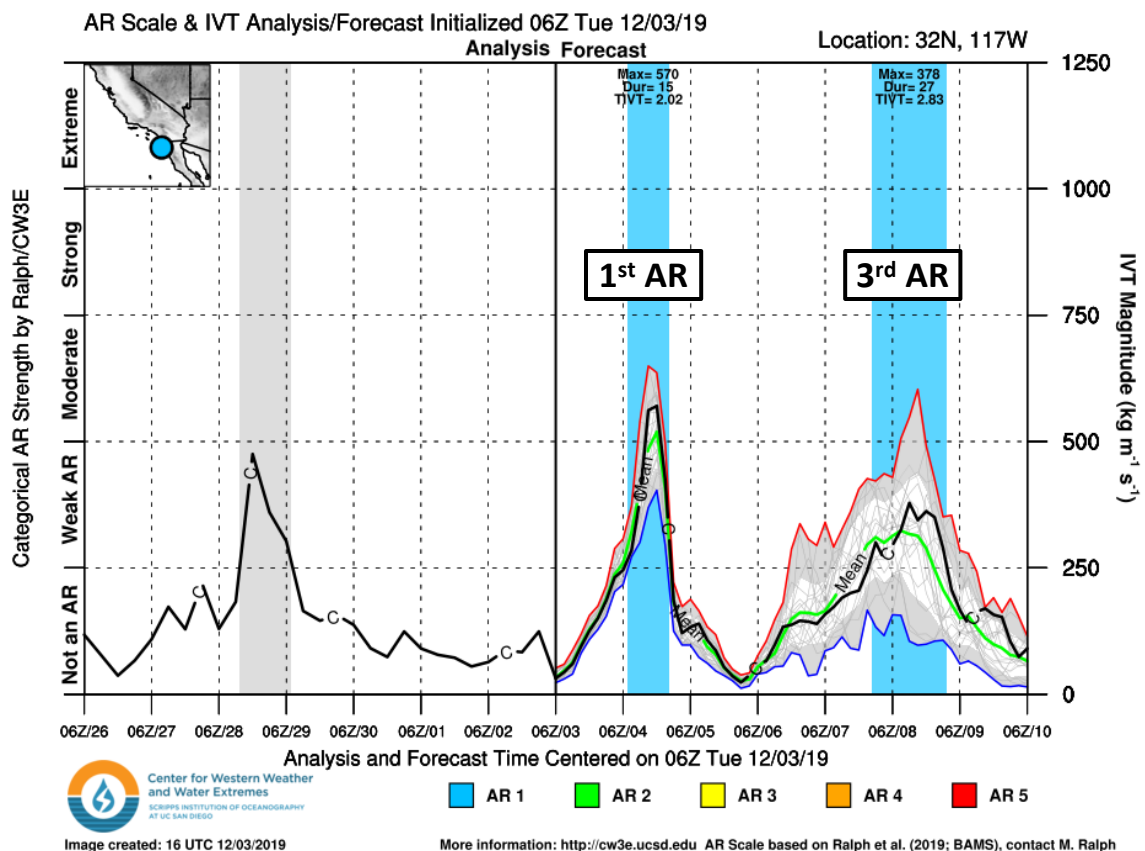
- The 1st AR will make landfall over the Baja Peninsula slightly before 0000 UTC 4 Dec
- Meanwhile, a second region of high IVT associated with a developing surface low will spread across southern CA on 4 Dec
- The orientation of the IVT vectors suggest orographic enhancement of precipitation over the Southern CA Transverse and Peninsular Ranges
- As the surface low dissipates, the second region of high IVT will move over Arizona and weaken

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- GEFS control member is currently predicting a brief period of weak-to-moderate AR conditions (AR1 based on the *Ralph et al. (2019)* AR Scale) near the California–Mexico border on 4 Dec
- This AR (see 1st AR) will be associated with higher precipitation amounts (0.5–2 inches) over Southern CA and lighter precipitation amounts (generally < 0.5 inches) over the interior southwestern U.S.
- More AR activity (see 3rd AR) in southern CA is possible early next week, but uncertainty in the location, duration, and magnitude is high

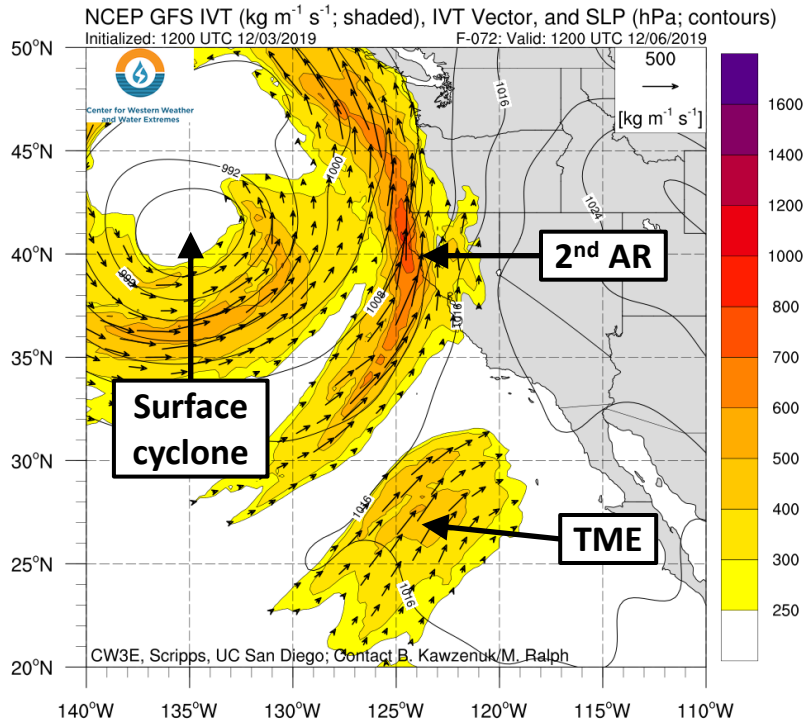
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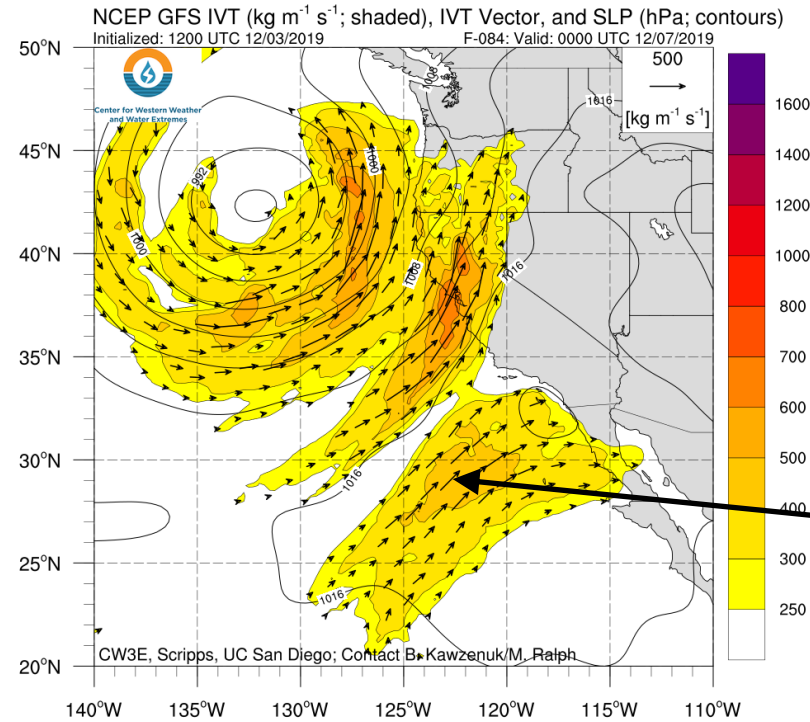
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GFS IVT Forecast for 2nd AR

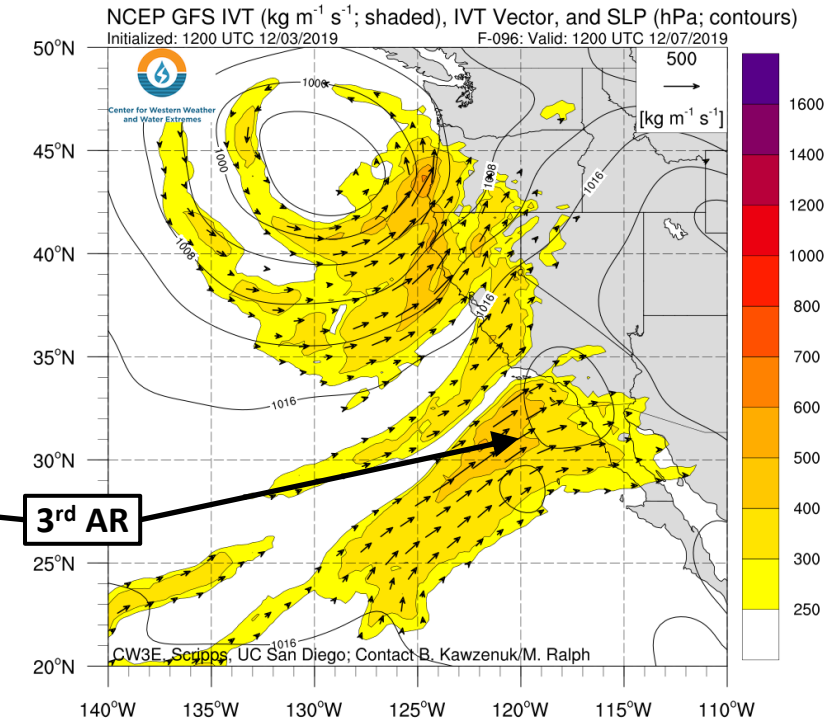
F-72 Valid: 1200 UTC 6 Dec



F-84 Valid: 0000 UTC 7 Dec



F-96 Valid: 1200 UTC 7 Dec

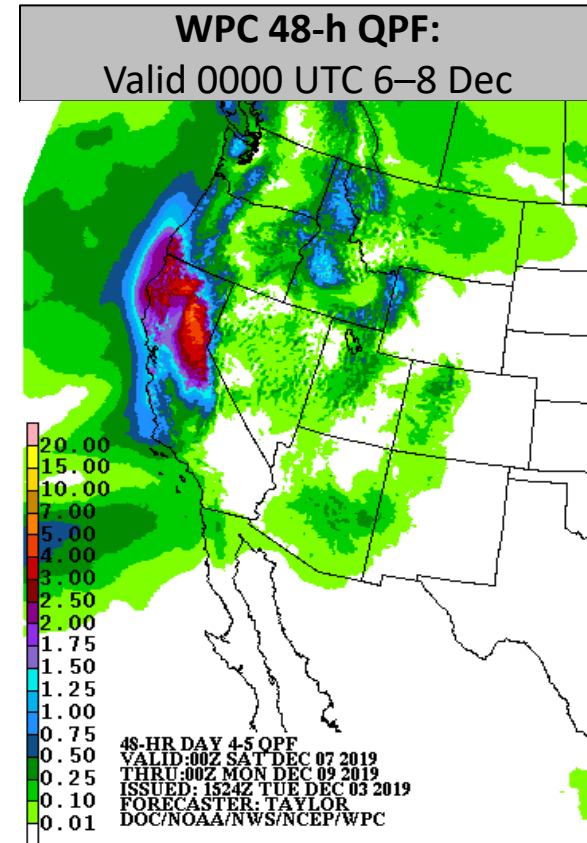
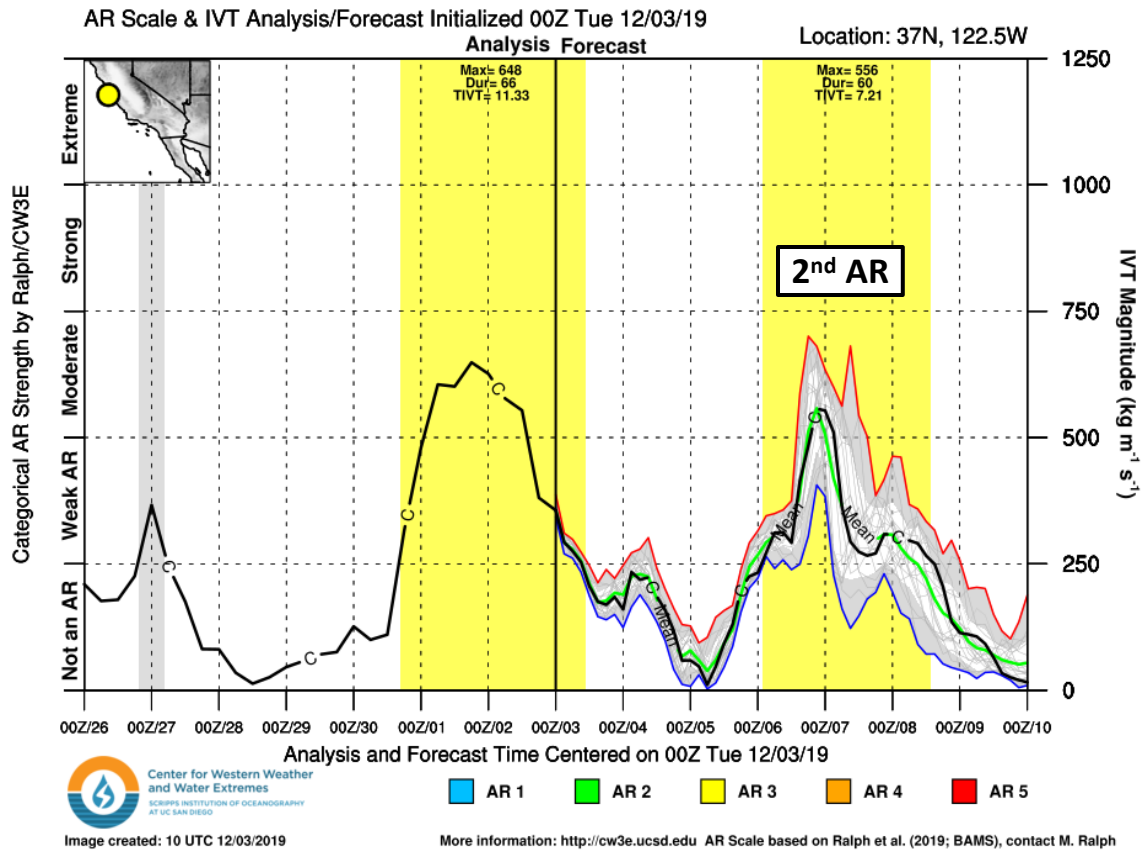


- The 2nd AR is forecast to make landfall along the U.S. West Coast slightly before 1200 UTC 6 Dec
- This meridionally extensive AR will be located in the warm sector of a large surface cyclone over the Northeast Pacific Ocean
- The forecast orientation of the IVT vectors at 0000 UTC 7 Dec is somewhat favorable for orographic enhancement of precipitation over the Klamath Mountains and Northern Sierra Nevada
- The 3rd AR is forecast to develop in association with a tropical moisture export (TME) and make landfall in Southern CA on 7 Dec

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- GEFS control member and ensemble mean both suggest > 48 hours of weak-to-moderate AR conditions near Monterey Bay, CA, in association with the 2nd AR (AR3 based on the *Ralph et al. (2019)* AR Scale)
- There is good agreement about the timing of AR onset, but some uncertainty in the duration and magnitude of AR conditions
- WPC is currently forecasting 1-3 inches of precipitation over northern CA, with higher amounts possible in the Coast Ranges, Klamath Mountains, and Northern Sierra Nevada