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
• 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
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
• 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
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.
• 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.