

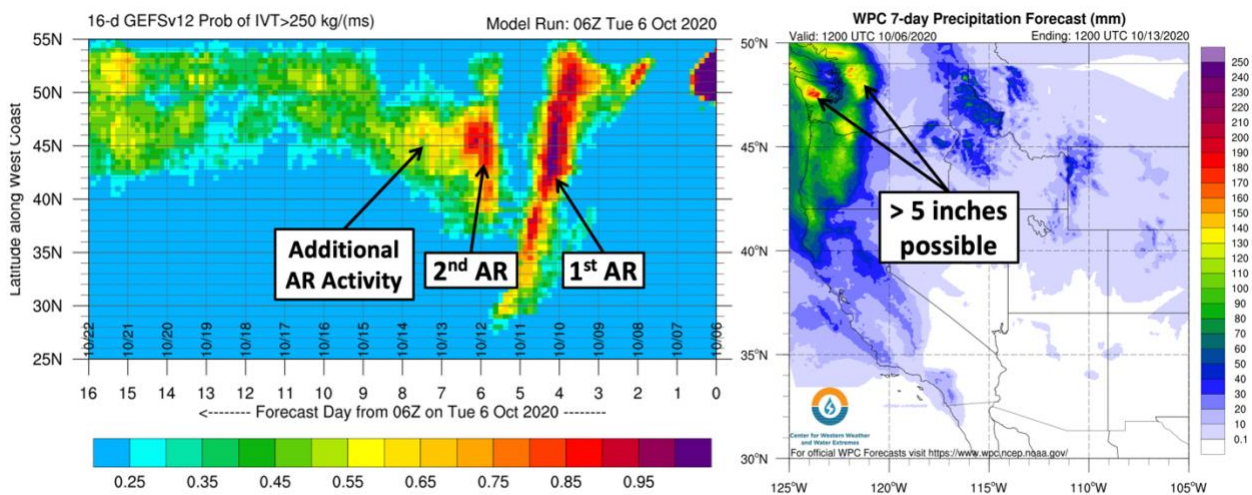
Latest Update on Atmospheric Rivers Forecast to Impact the U.S. West Coast

Updated: 6 October 2020

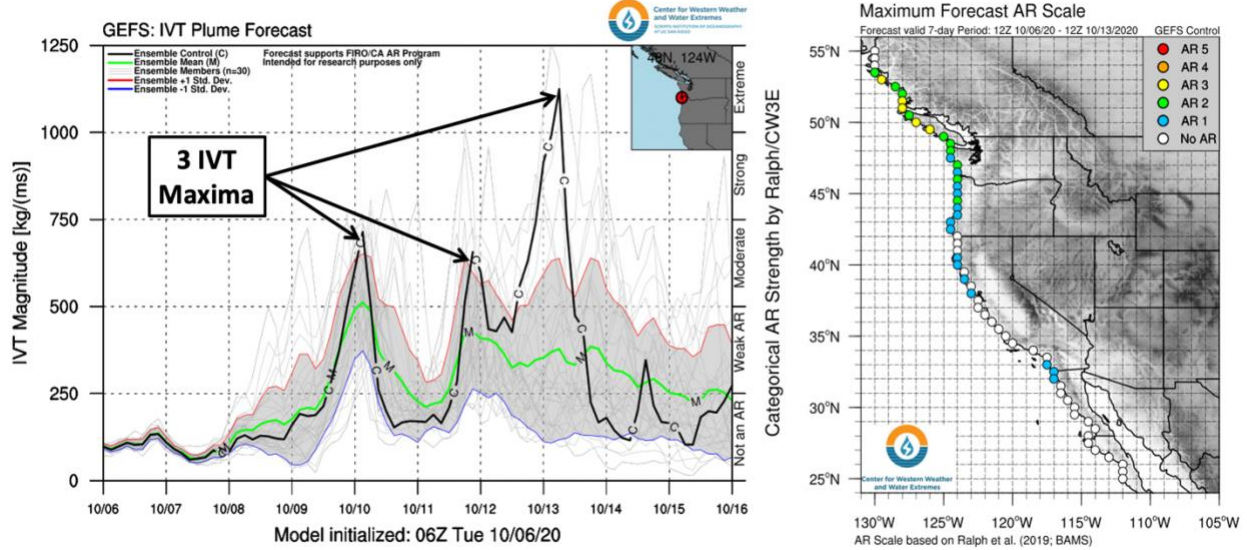
A quick look at the atmospheric rivers that are forecast to impact the U.S. West Coast later this week into early next week.

Forecast Highlights:

- Current forecast models suggest that multiple ARs are likely to make landfall along the U.S. West Coast over the next 7 days.
- The Global Ensemble Forecast System (GEFS) is showing high probabilities (> 70%) of AR conditions ($IVT \geq 250 \text{ kg m}^{-1} \text{ s}^{-1}$) between Northern California and Washington on 10 Oct (1st AR) and 12 Oct (2nd AR), followed by a longer period of elevated probabilities (> 50%) of AR conditions over coastal Oregon and Washington during 13–14 Oct.
- At least 2 inches of total precipitation are currently forecast across western Washington and Oregon, as well as far Northern California, during the next 7 days. The highest precipitation amounts are expected over the Olympic Mountains and Washington Cascades, where more than 5 inches are possible.
- The upcoming active weather pattern is tied to a series of cyclogenesis events over the Northeast Pacific Ocean. Multiple ARs (note the three IVT maxima in the bottom figure) are forecast to develop and strengthen in association with these low-pressure systems.
- During the first AR, maximum IVT values are forecast to exceed $500 \text{ kg m}^{-1} \text{ s}^{-1}$ and AR conditions are forecast to persist for 24 consecutive hours in some locations (AR 2 based on the Ralph et al. 2019 AR scale).
- Although there is considerable uncertainty in the long-range forecasts, the GEFS control member is currently predicting extreme AR conditions ($IVT > 1000 \text{ kg m}^{-1} \text{ s}^{-1}$) near the Oregon/Washington border during the third pulse of moisture transport on 13 Oct.



Stay tuned to the CW3E webpage for a full AR Update



Additional Considerations:

- Visit <https://nwrfc.noaa.gov/> for specific river and stream forecasts and <https://www.weather.gov/> for point specific watches, warnings, and forecasts.

In-depth AR forecasts products can be found here:

<http://cw3e.ucsd.edu/iwv-and-ivt-forecasts/>

Update provided by C. Castellano

c1castellano@ucsd.edu

Stay tuned to the CW3E webpage for a full AR Update