



Latest Update on Potential Series of Atmospheric Rivers

Updated: 7 March 2024

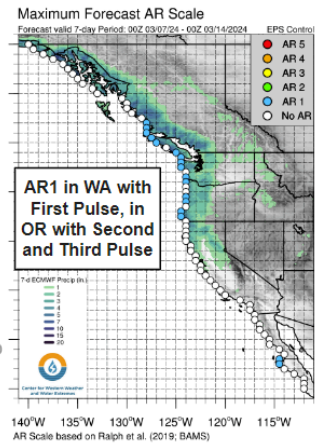
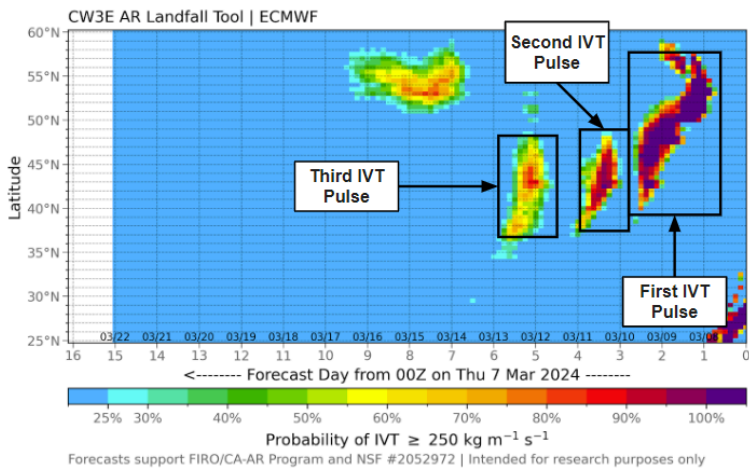
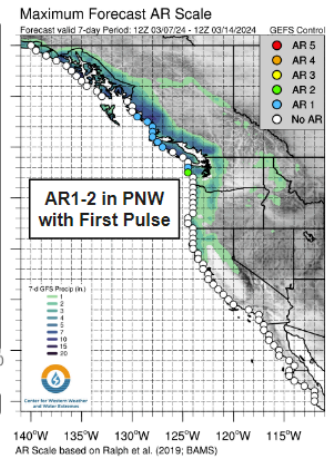
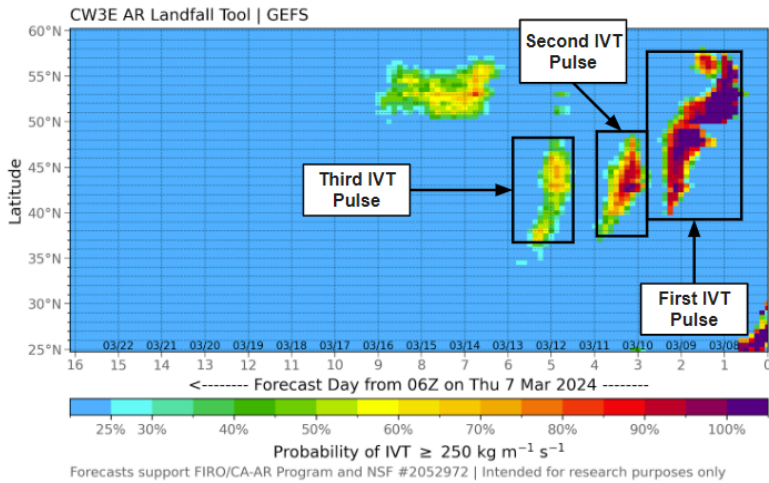
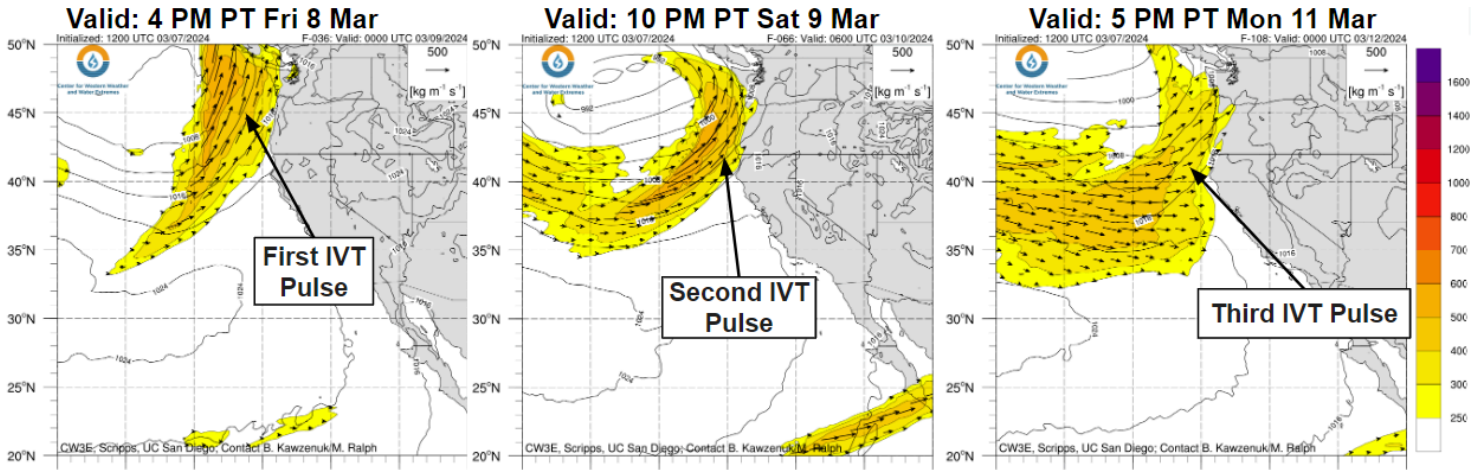
A quick look at the incoming series of atmospheric rivers that are forecast to make landfall along the US West Coast (USWC) followed by a potential shift toward drier conditions.

Forecast Highlights:

- A series of atmospheric rivers (ARs) are forecast to make landfall along the USWC over a five-day period from Fri 8 Mar through Wed 13 Mar.
- Both the GEFS and ECMWF EPS are forecasting the first pulse of moisture transport to bring AR1 conditions (based on the Ralph et al. 2019 AR Scale) to northern WA. The EPS control member shows the second and third pulses reaching AR1 in central and southern OR whereas the GEFS does not have these pulses exceeding an AR0.
- The Weather Prediction Center (WPC) is forecasting 7-day precipitation totals above 3 inches for much of the WA, OR and Northern CA coasts as well as over the Cascades, with the highest forecast totals greater than 6 inches over the Olympic Peninsula and OR/CA border.
- The WPC has issued a marginal risk (level 1 of 4, 5% risk) for flash flooding from the Olympic Peninsula down through the Northern CA coast for the 24-hour periods ending 5 AM PT Mon 11 Mar and Tue 12 Mar.
- The National Blend of Models (NBM) is showing high probabilities (>80%) of snowfall accumulations exceeding 12 inches over the Cascades for the 72-hour period ending 4 PM PT Tue 12 Mar.
- Following this sequence, both the GFS and ECMWF are forecasting the development of a ridge in the Northeast Pacific late next week.
- CW3E's AR landfall tool for both the GEFS and ECMWF EPS are showing < 25% likelihood of a landfalling AR beyond Wed 13 Mar along the USWC.
- The Climate Prediction Center is forecasting >60% chance of above-normal temperatures along the USWC and below-normal precipitation along the Pacific Northwest (PNW) coast and northern CA for Fri 15 Mar through Thu 21 Mar.
- The IRI Regime forecast is indicating a similar scenario, where >75% of ensemble members are indicating a shift to a West Coast Ridge regime in late March. This regime is associated with dry conditions along the USWC and warmer than average conditions over CA.

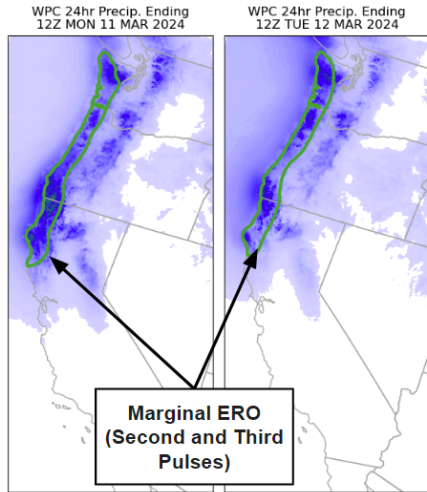
Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov) and follow guidance from local emergency management officials

Stay tuned to the CW3E webpage for a full AR Update

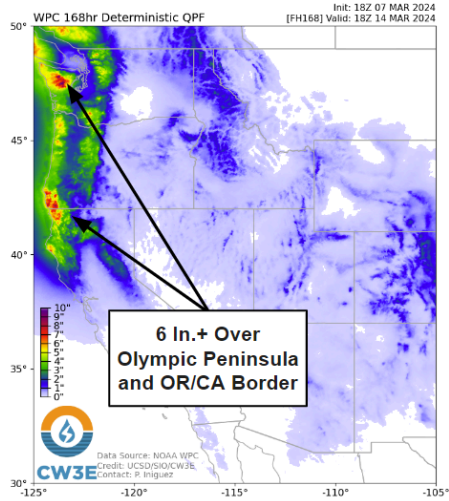


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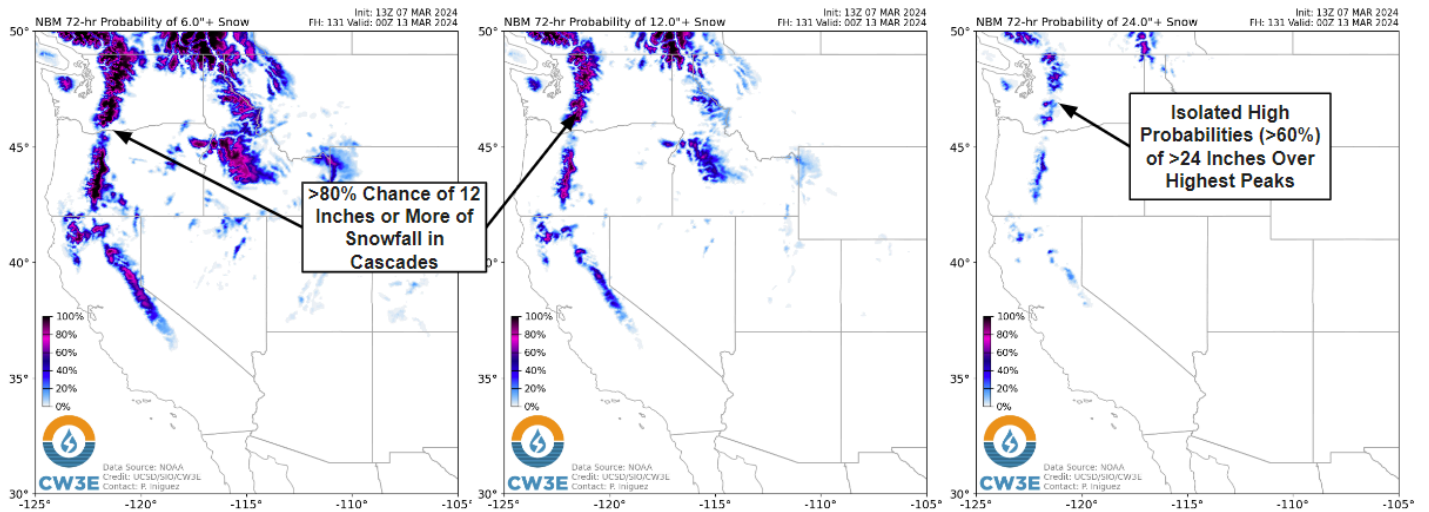
WPC Day 4 and 5 QPF: Periods Ending 5 AM PT 11 and 12 Mar



WPC 7-Day QPF: Period Ending 11 AM PT Thu 14 Mar

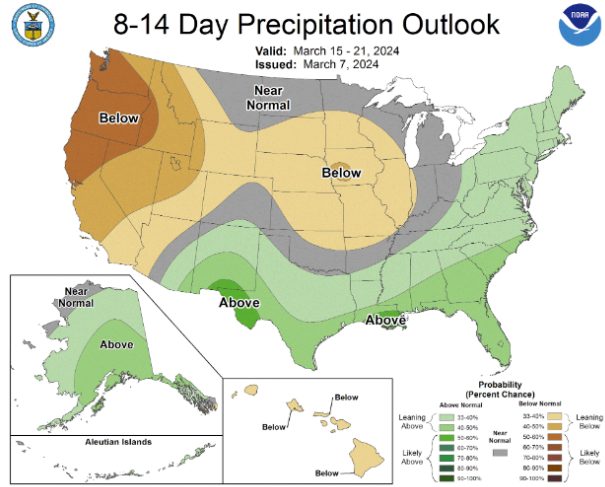
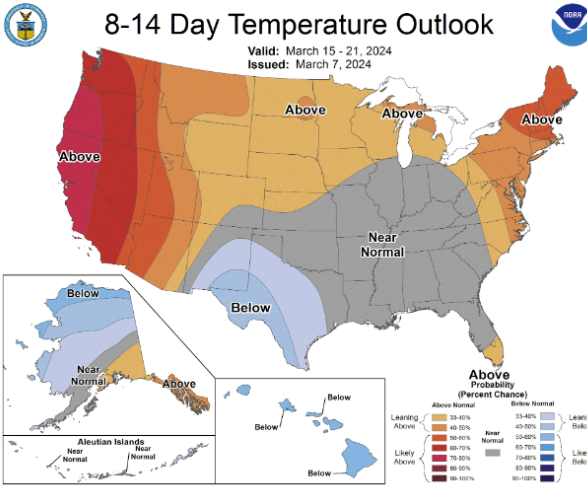


NBM 72-Hr Probability of 6, 12 and 24 Inches of Snowfall Accumulation: Valid 5 PM PT Tue 12 Mar

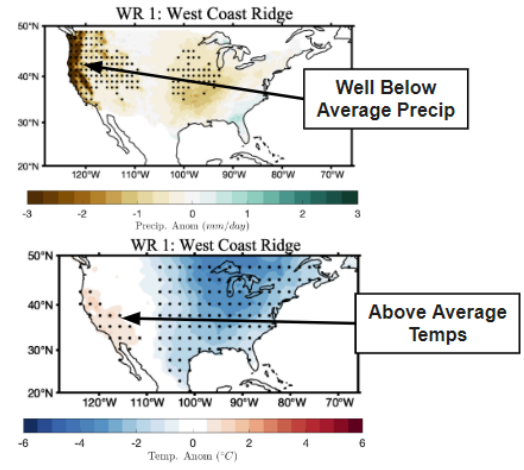
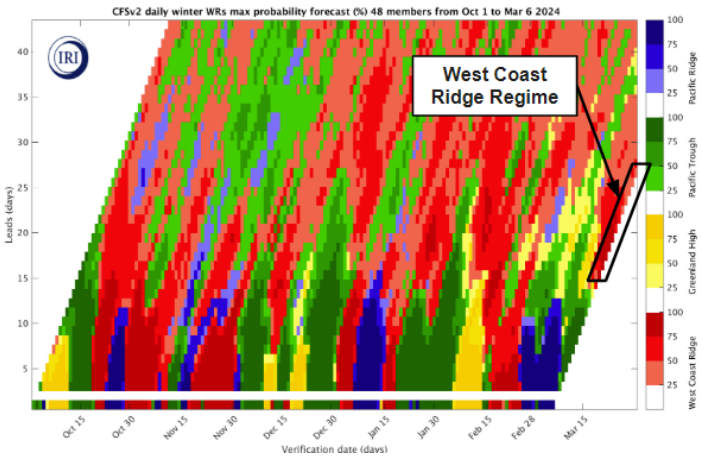


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CPC Day 8-14 Temperature and Precipitation Outlook: Valid Mar 15- 21



IRI Weather Regime Forecast



Additional Considerations:

- Visit <https://www.nwrfc.noaa.gov/> and <https://cnrfc.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 by M. Steen

msteen@ucsd.edu

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