

Latest Update on Active Weather Period Bringing Precipitation to US West Coast

Updated: 19 January 2024

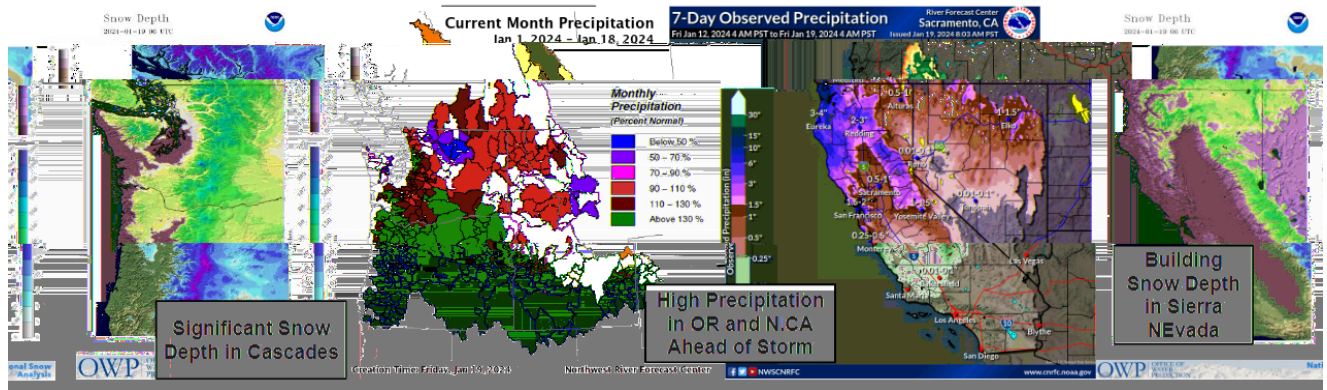
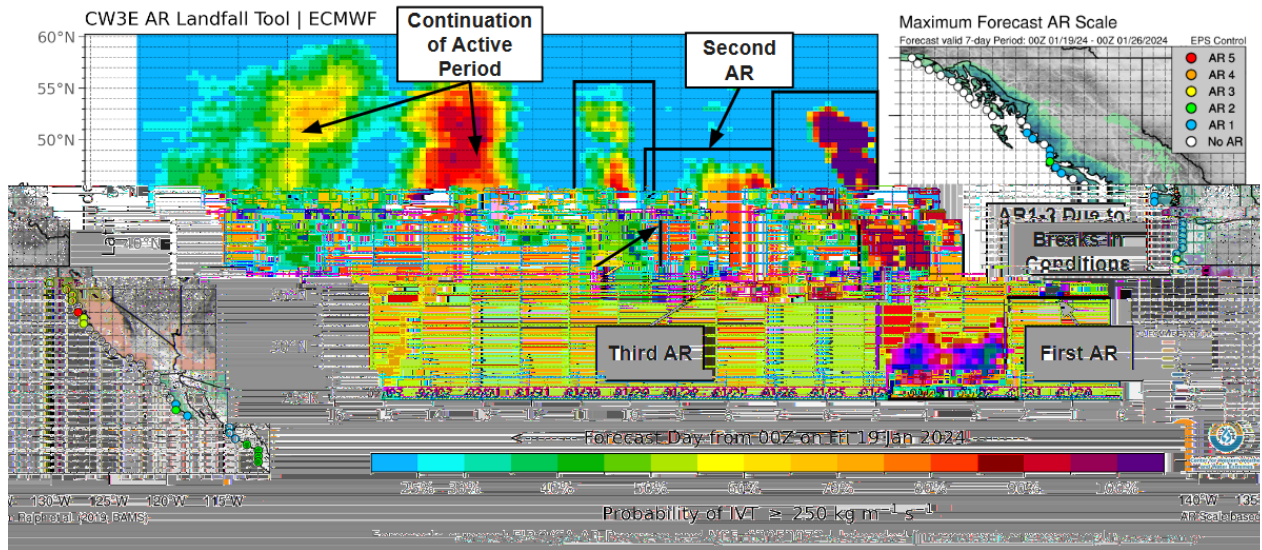
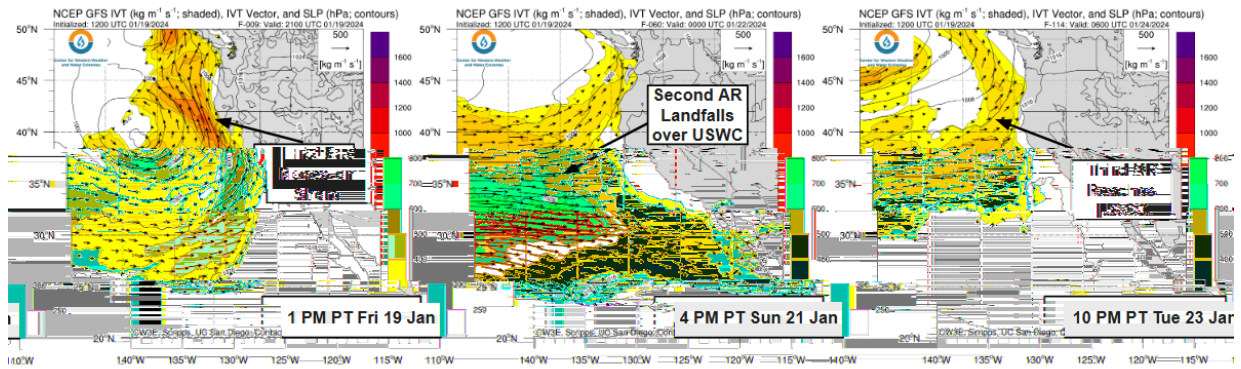
A quick look at the active weather period driven by several atmospheric rivers that will bring significant precipitation to the US West Coast (USWC), specifically Northern California, through Wed 24 Jan and potentially beyond.

Forecast Highlights:

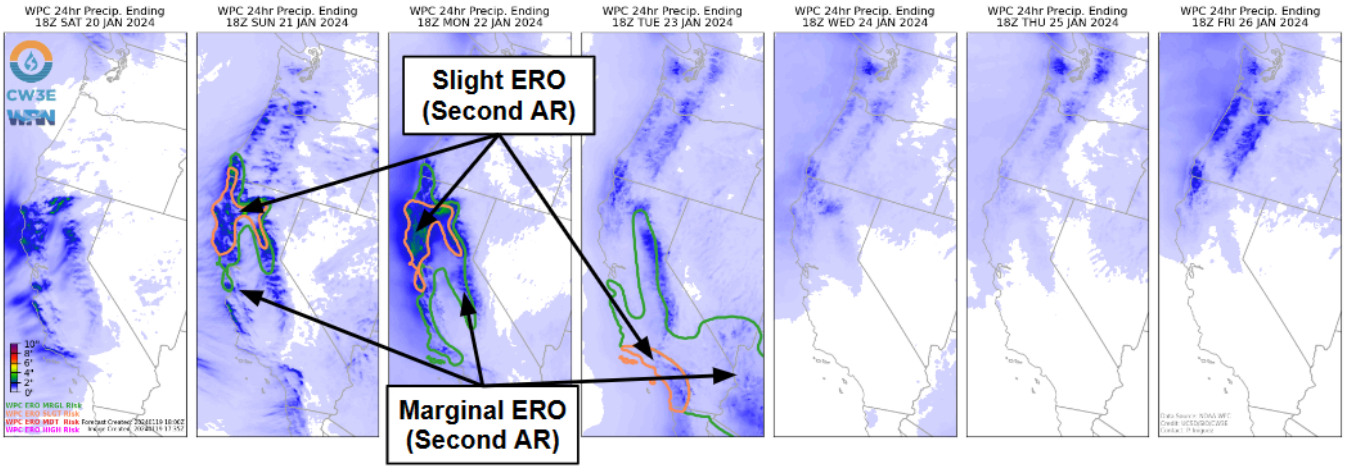
- Three atmospheric rivers are forecast to progress toward the USWC and make landfall in the next week, the **first** of which made landfall yesterday over the Pacific Northwest.
- This system brings precipitation to much of the USWC, including heavy rainfall over the Olympic Peninsula and more freezing rain in the Portland Metro area.
- The **second AR** follows closely behind, with the burst of IVT associated with this system making landfall over northern CA late Sun 21 Jan.
- The **second AR** begins a period of heavy precipitation for CA, with regions along the Northern CA coast and the northern Sierra Nevada forecast to receive more than 6 inches of precipitation.
- Heavy snowfall is also expected in the Sierra Nevada, with snowfall totals likely greater than one foot.
- The significant precipitation totals combined with fresh snowpack and moist soils from previous events presents elevated risks for flooding over coastal CA and on the western side of the Sierra Nevada.
- The Weather Prediction Center (WPC) Excessive Rainfall Outlook indicates a Slight Risk (level 2 of 4, or at least 15% chance) for flooding in Days 2 and 3 (periods ending 4AM PT Jan 21 and 22) in Northern CA and Day 4 (period ending 4AM PT Jan 23) in Southern CA.
- A **third AR** out of the central Pacific is likely to make landfall into the Pacific Northwest late Tue 23 Jan into early Wed 24 Jan.
- This system is forecast to bring more precipitation to the Pacific Northwest, including more snow in the northern Cascades.
- This sequence of storms is forecast to **peak** at an **ARI** (based on Ralph et al. 2019 AR scale) for much of the US West Coast. This is due to breaks in AR conditions during the storms and much of the highest IVT values being driven south or not making it to the coast.
- There is potential for this period of active weather in the Pacific and along the US West Coast to continue beyond Jan 24. The ECMWF Landfall tool is showing high probabilities of IVT > 250 kg m⁻¹ s⁻¹ over the Pacific Northwest on 26-27 Jan.
- We will continue to track the development of the weather over the Pacific and provide updates as the period progresses.

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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Additional Considerations:

- Visit <https://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/>

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