

Quick Look at the AR Forecast to Bring Precipitation to the Pacific Northwest *Updated: 5 February 2025*

An atmospheric river (AR) is forecast to produce precipitation in western Washington, Oregon, and far northern California beginning this weekend into early next week.

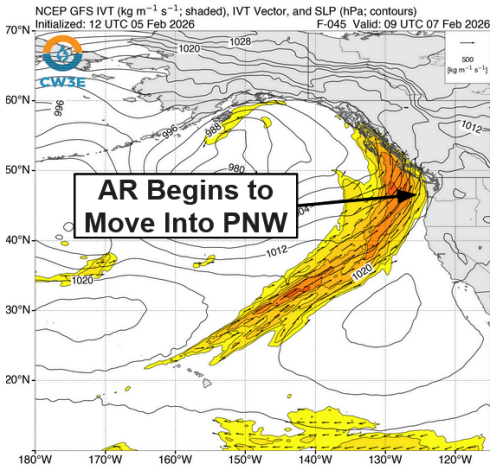
Forecast Highlights:

- An AR is forecast to make landfall along the coast of British Columbia tomorrow and propagate southeastward into the Pacific Northwest by early Sat 7 Feb.
- The AR is forecast to remain in the region through early Mon 9 Feb but there is model-to-model uncertainty in how far down the coast the system will propagate, which will impact the extent of precipitation and potential totals.
- Additionally, there is a signal within the ensembles for a secondary low formation off the Pacific Northwest coast that would strengthen the IVT along the tail of the AR.
- Uncertainty in the propagation speed of the storm and the potential formation of the secondary low are driving uncertainty in the start timing and duration of AR conditions and the timing of maximum IVT along the PNW coast in the GEFS and EPS ensembles.
- The GEFS and EPS control members are forecasting AR1 to AR2 conditions (based on the Ralph et al. 2019 AR Scale) over the Pacific Northwest coast between 7 and 9 Feb. Both ensembles are showing short-duration AR conditions not reaching the AR Scale over the foothills of the Cascades.
- The NWS Weather Prediction Center (WPC) is forecasting 2-4 inches of precipitation over the Olympic Peninsula, Washington and Oregon Cascades and Oregon Coast Ranges for the 72-hour period ending 4 PM PT Mon 9 Feb.
- The WPC has issued **marginal risk** (level 1 of 4) Excessive Rainfall Outlook (ERO) over the Olympic Peninsula for the 24-hr period ending 4 AM PT 8 Feb.
- Freezing levels over the Washington and Oregon Cascades are forecast to fall from ~12,000 feet to near 6,000 feet at the onset of the AR and then continue to drop during the duration of the event. Most of the precipitation is forecast prior to the drop in freezing levels, with snow accumulations confined to higher elevations.
- The NWS Northwest River Forecast Center (NWRFC) is forecasting four gauges to reach action stage and nine gauges to reach 80% bankfull in western Washington by Mon 9 Feb.
- CW3E's Atmospheric River Reconnaissance field campaign is planning a sequence of flights to sample this AR, nearby essential atmospheric structures, and regions of high forecast sensitivity with the goal of improving precipitation forecasts along the US West Coast.

Stay alert to official NWS forecasts, watches, and warnings at [weather.gov](https://www.weather.gov)

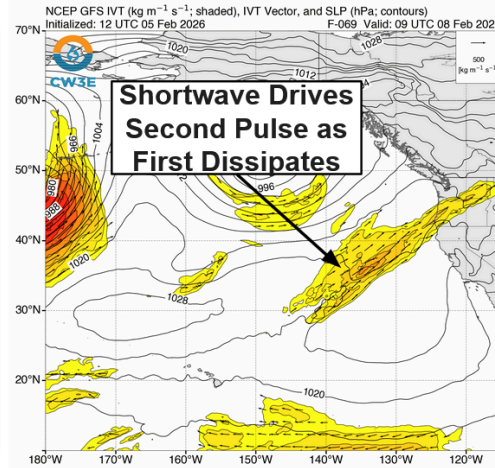
GFS IVT

Valid: 1 AM PST Sat 7 Feb



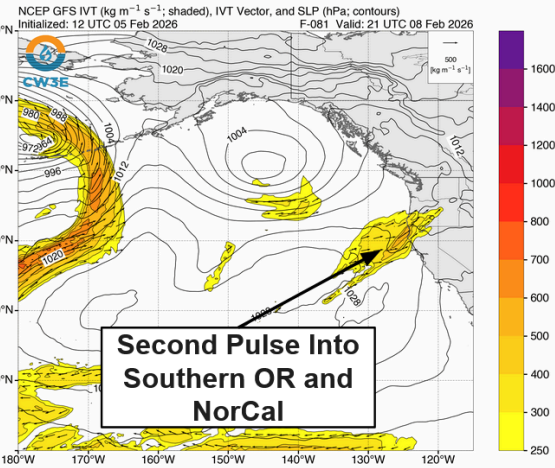
GFS IVT

Valid: 1 AM PST Sun 8 Feb



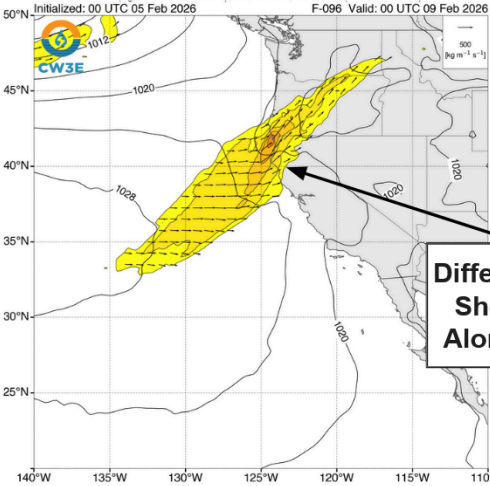
GFS IVT

Valid: 1 PM PST Sun 8 Feb



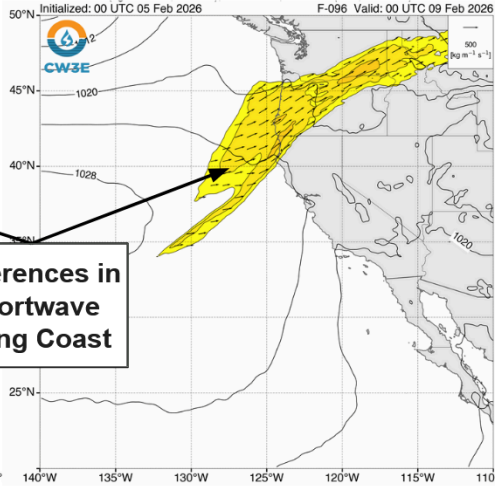
GFS IVT

Valid: 4 PM PT Sun 8 Feb



ECMWF IVT

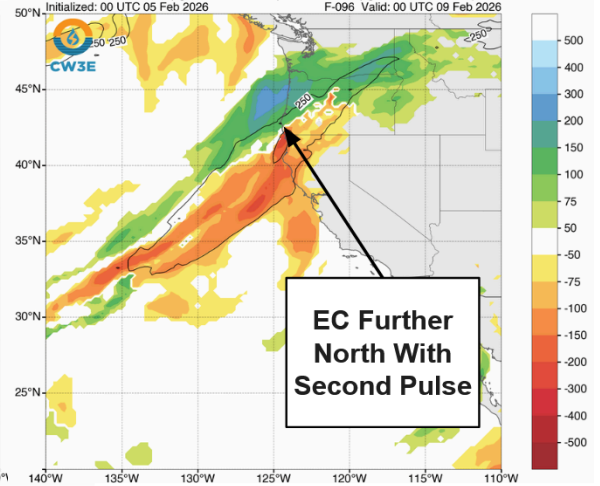
Valid: 4 PM PT Sun 8 Feb



Differences in Shortwave Along Coast

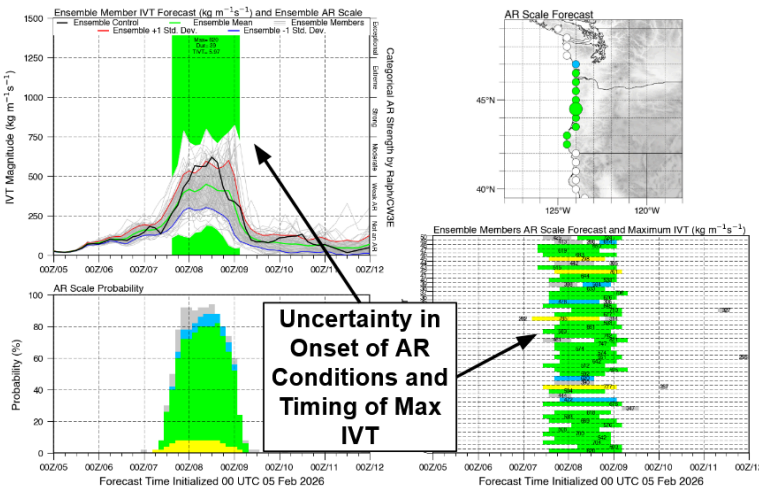
ECMWF-GFS IVT

Valid: 4 PM PT Sun 8 Feb

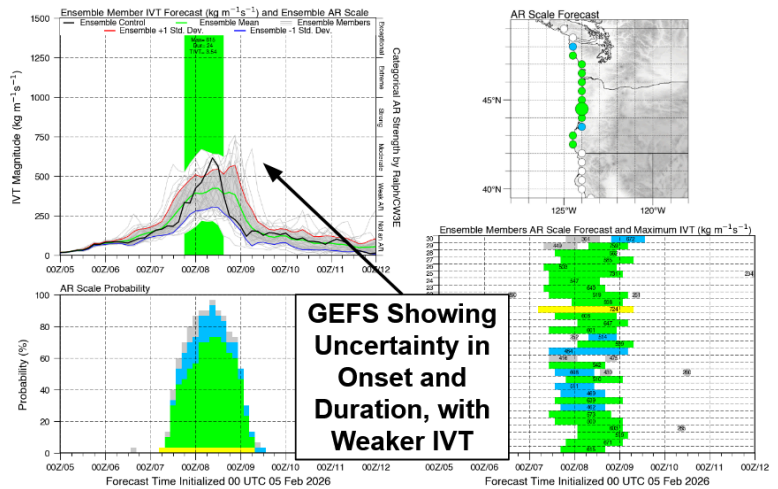


AR Scale Forecasts Comparison for Coastal Oregon

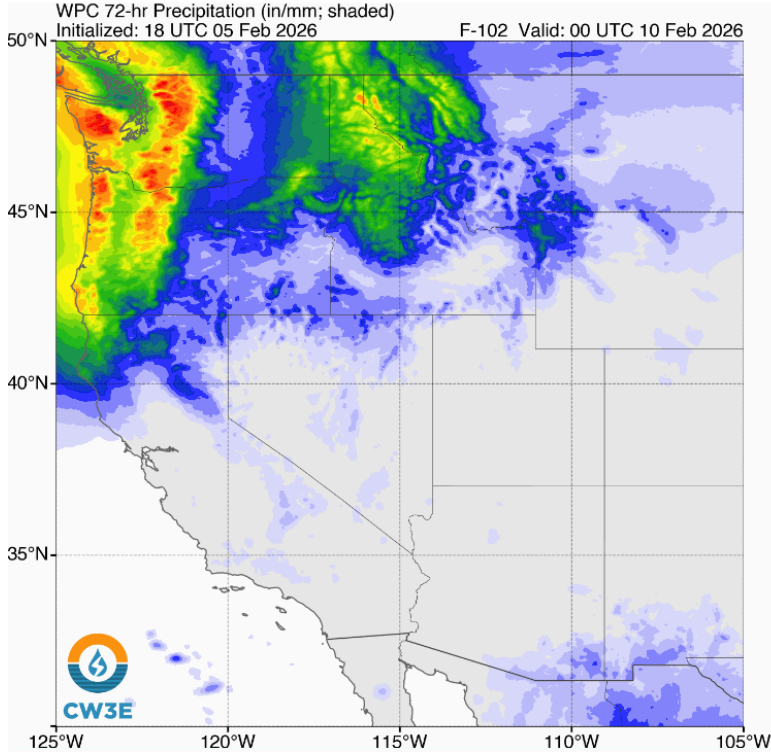
EPS



GEFS



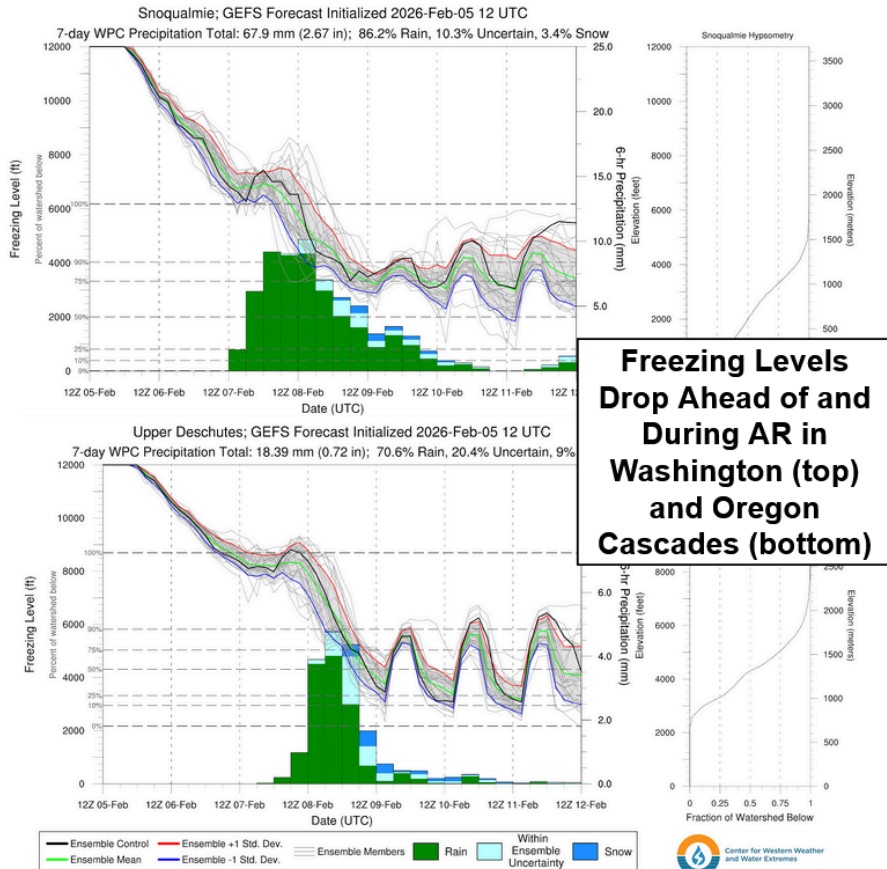
WPC 72-Hour Precipitation: 4 PM PT Feb 6–4 PM PT Feb 9



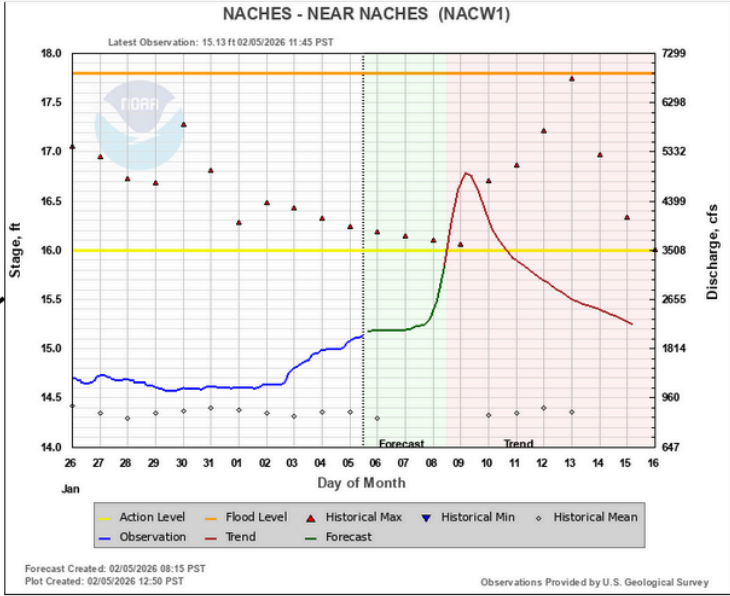
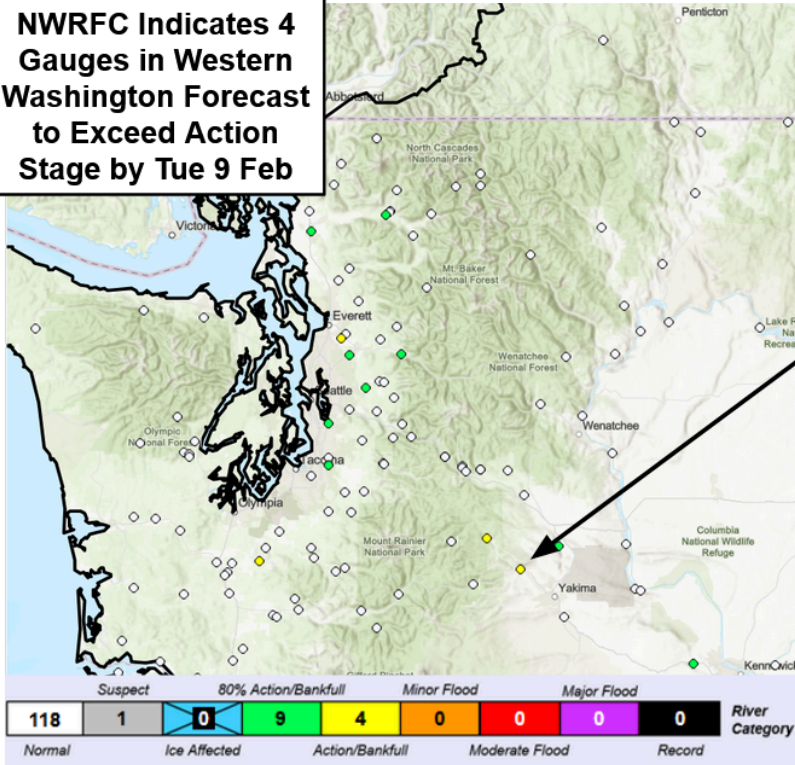
WPC Excessive Rainfall Outlook: 4 AM PT Feb 7–4 AM PT Feb 8



Day 3 Excessive Rainfall Outlook
Valid 12Z Sat Feb 07 2026
Thru 12Z Sun Feb 08 2026
Issued: 1904Z Thu Feb 05 2026
Forecaster: CHENARD
DOC/NOAA/NWS/NCEP/WPC



NWRFC Indicates 4 Gauges in Western Washington Forecast to Exceed Action Stage by Tue 9 Feb



Additional Considerations:

Visit <https://www.weather.gov/nwrfc/> for specific river and stream forecasts and <https://www.weather.gov/> for point specific forecasts.

In-depth AR forecasts products can be found here: <http://cw3e.ucsd.edu/iwv-and-ivt-forecasts/>

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