Center for Western Weather and Water Extremes
SCRIPPS INSTITUTION OF OCEANOGRAPHY AT UC SAN DIEGO

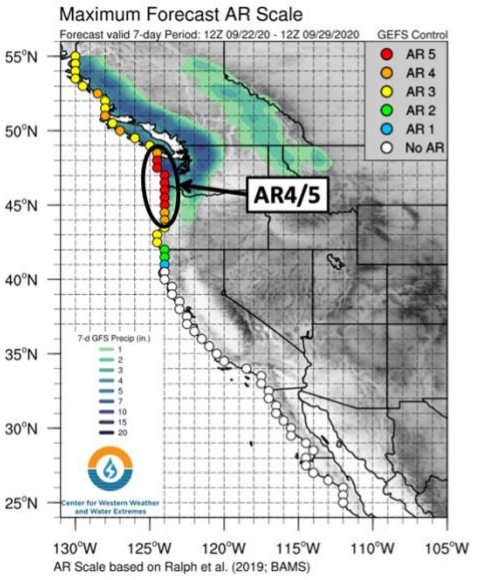
Latest Update on Strong Atmospheric River Forecast to Impact the Pacific Northwest

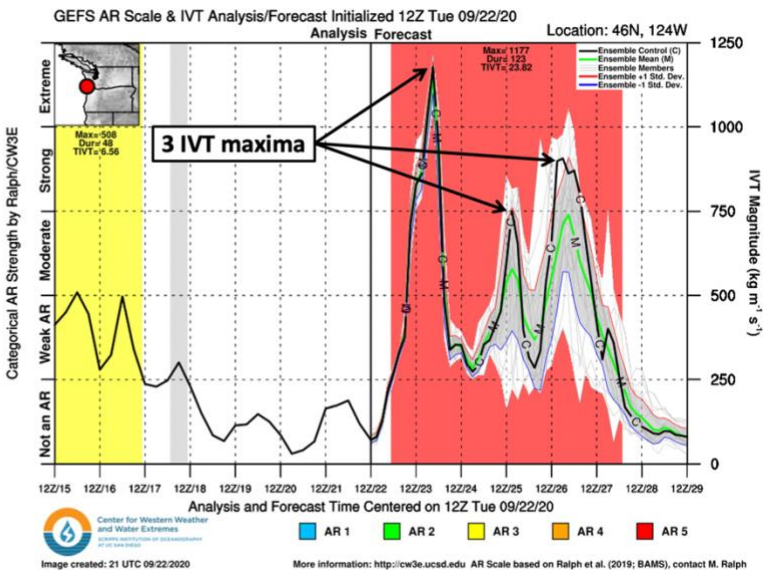
Updated: 22 September 2020

A look into the atmospheric river that will impact the Pacific Northwest this week into early next week.

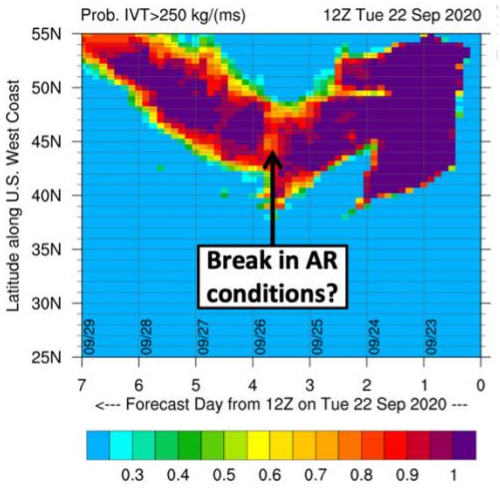
Forecast Highlights:

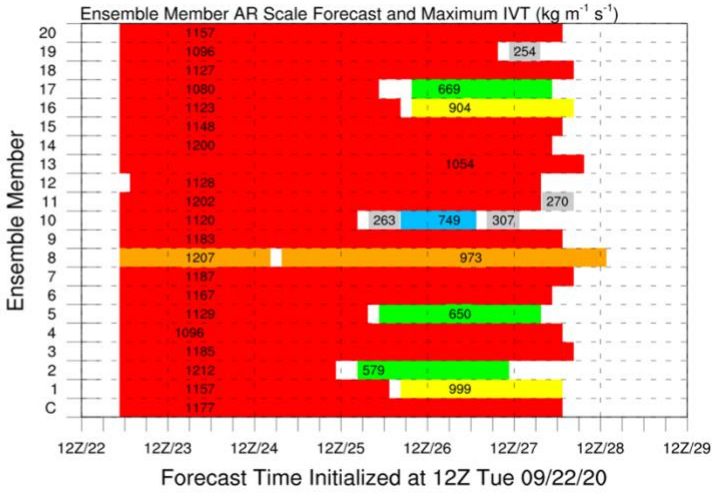
- A strong AR is forecast to bring AR4/AR5 conditions [based on the Ralph et al. (2019) AR Scale] to coastal Washington and Oregon this week.
- Maximum IVT values are forecast to exceed 1000 kg m^{-1} s^{-1} and AR conditions (IVT ≥ 250 kg m^{-1} s^{-1}) are forecast to persist for more than 100 consecutive hours in some locations.
- The persistent AR activity is tied to a series of low-pressure systems that will move across the Northeast Pacific Ocean in rapid succession. This series of storms will produce multiple pulses of moisture transport over the next 5 days (note the three distinct IVT maxima in the second figure).
- 20/21 GFS ensemble members are predicting an AR5 in northwestern Oregon, and 14/21 members are predicting no break in AR conditions through 00Z 27 September (Saturday evening).
- More than 7 inches of total precipitation is expected across the Olympic Mountains and North Cascades during the next 7 days.
- Upslope moisture flux may lead to orographic enhancement of precipitation over the Olympic Mountains, Cascades, and Oregon Coast Ranges.





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/

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