



## Latest update on storm system with AR early next week

*Updated: 24 March 2023*

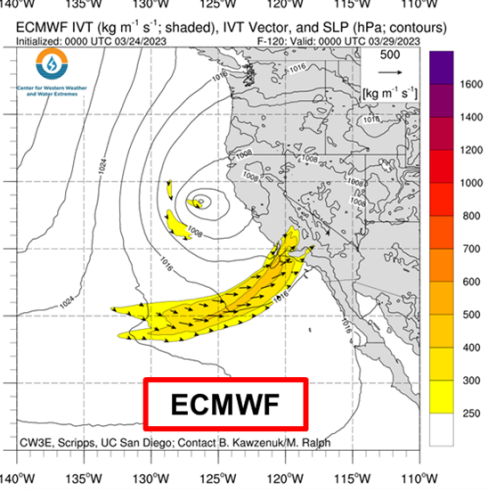
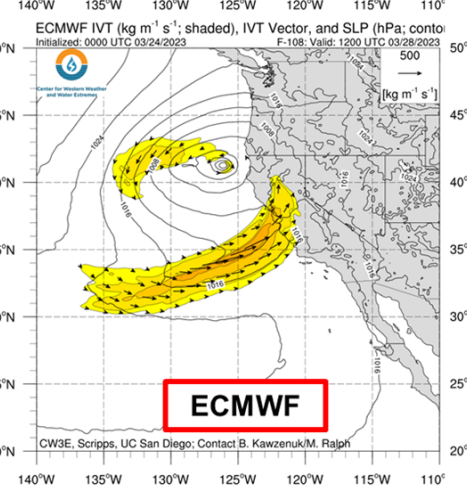
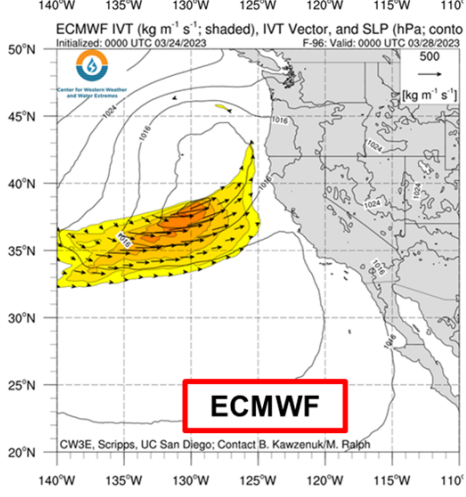
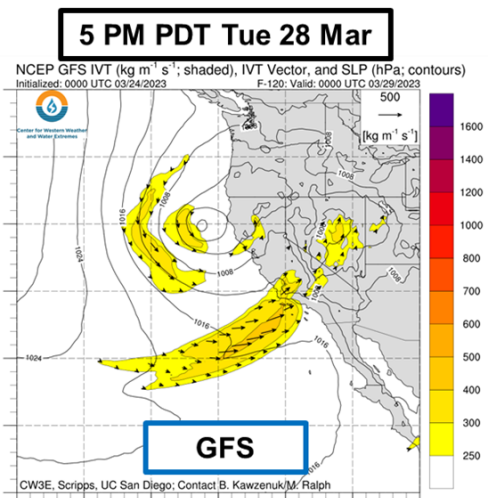
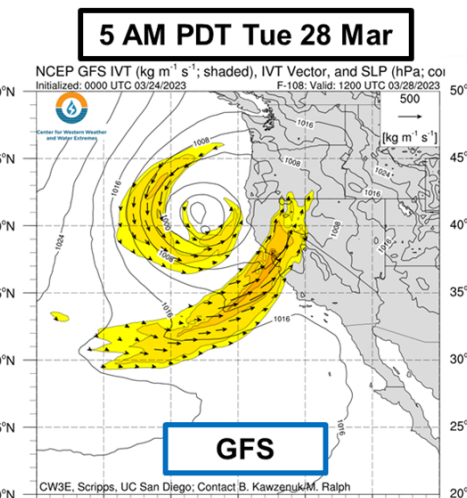
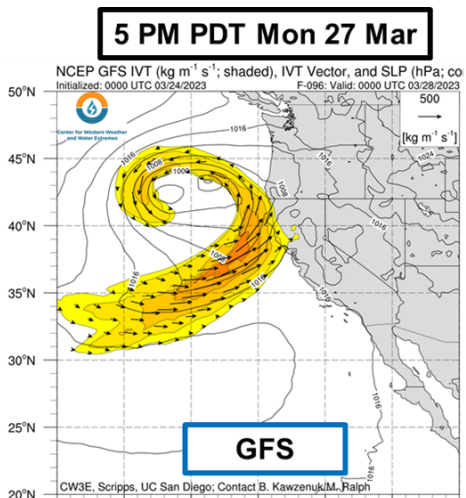
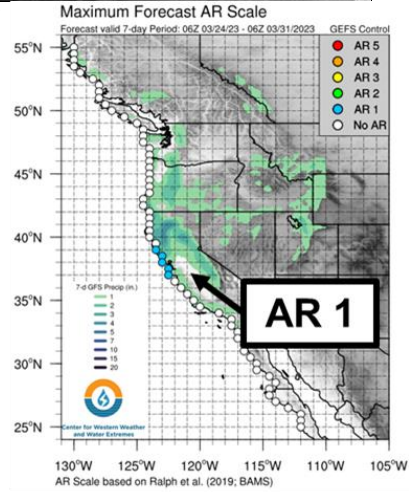
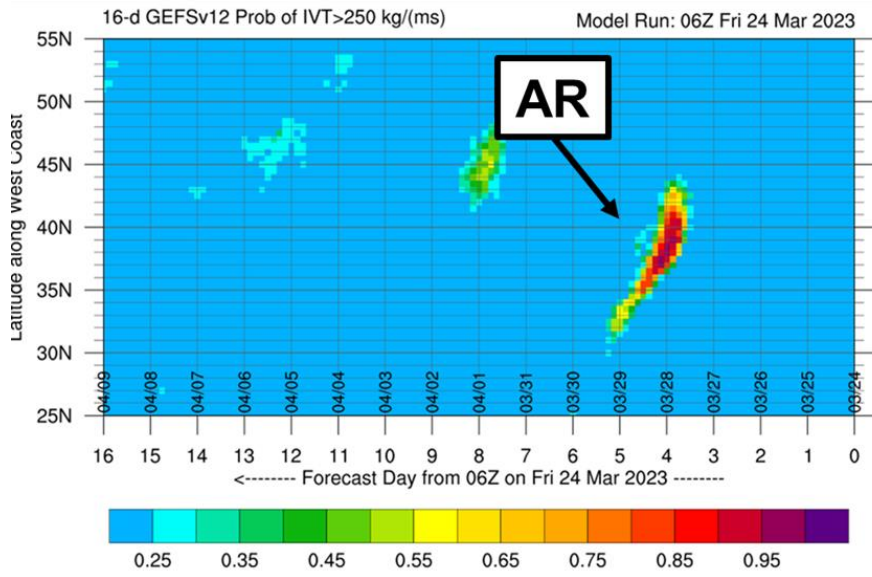
A quick look at the storm system and atmospheric river forecast to bring additional rain and snow to California early next week

### Forecast Highlights:

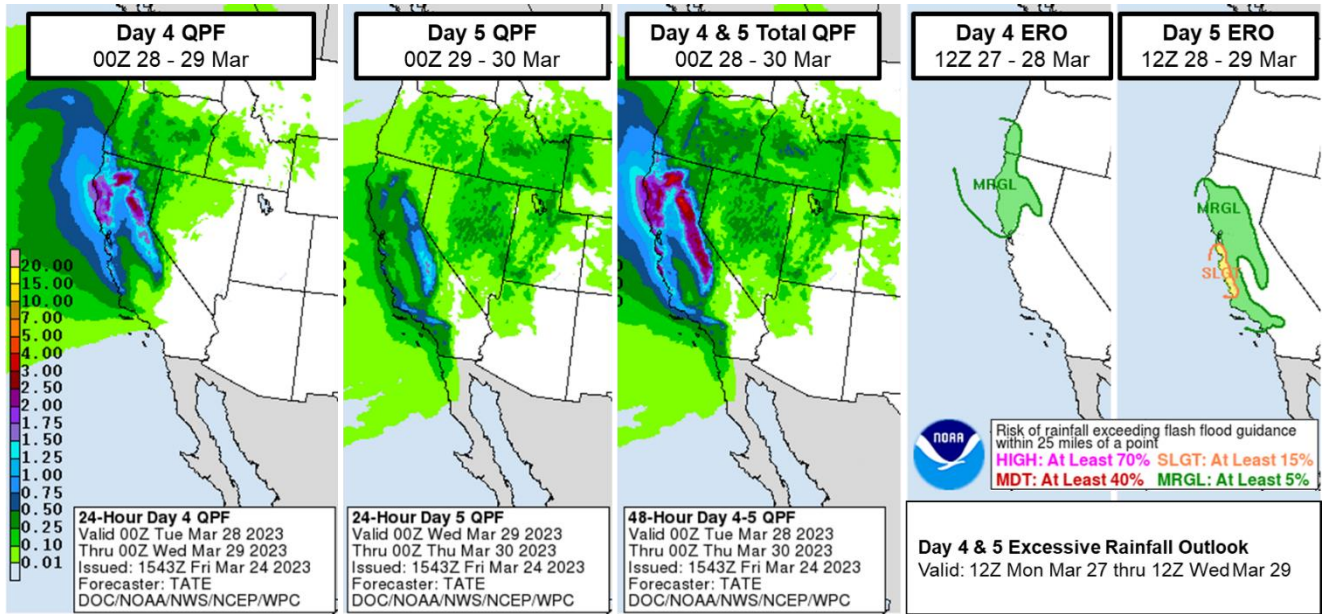
- A fast-moving atmospheric river is forecast to develop on Monday in association with a rapidly intensifying surface low-pressure system off the US West Coast, making landfall into Northern California late in the day on Monday
- The AR is forecast to rapidly progress down the coast of California on Tuesday with southwesterly IVT  $> 400 \text{ kg m}^{-1} \text{ s}^{-1}$  in the core of the AR, eventually dissipating over Southern California early on Wednesday
- The 06Z GEFS control is showing high confidence (70–90%) in a period of AR conditions (IVT  $> 250 \text{ kg m}^{-1} \text{ s}^{-1}$ ) along the coast of California with the 06Z GEFS control forecasting AR1 conditions (based on the Ralph et al. 2019 AR Scale) in Central California near the San Francisco Bay Area
- The 00Z GFS is forecasting the AR to make landfall earlier and farther north compared to the 00Z ECMWF due to cyclogenesis occurring approximately 12 hours earlier and 500 km farther northwest in the GFS
- The NWS Weather Prediction Center is forecasting 48-hour precipitation totals between 1–2 inches in the Coast Ranges of Northern and Central California and 3–4 inches in the Klamath Mountains, southern Cascades, and Sierra Nevada from late Monday through early Wednesday, with less than 1 inch forecast for coastal location in Southern California
- NWS WPC has also forecast a marginal risk (at least 5%) for excessive rainfall in the Coast Ranges of Northern California Monday into Tuesday, and up to a slight risk (at least 15%) for coastal locations between San Francisco and San Luis Obispo Tuesday into Wednesday
- NWS WPC's forecast probability of melted snow/sleet  $> 0.25$  inches is highest (70–90%) in the Klamath Mountains, southern Cascades, and Sierra Nevada Tuesday into Wednesday
- NWS WPC's Probabilistic Winter Storm Severity Index is forecasting high probabilities (70–90%) for moderate impacts to daily life (defined as disruptions to daily life including hazardous driving conditions) in the same regions
- The 00Z GEFS control member is forecasting freezing levels to drop from approximately 5,000 down to 3,000 feet over the Northern Sierra Nevada during this AR, with snowfall as the dominant precipitation type during this storm over the Upper Yuba watershed

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

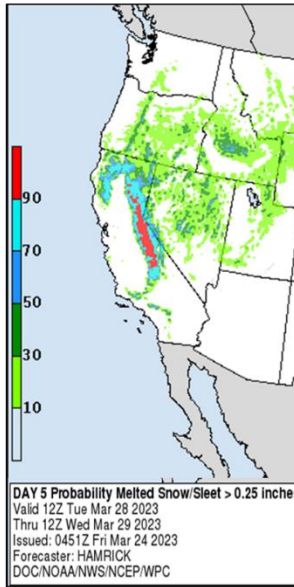
Stay tuned to the CW3E webpage for a full AR Update



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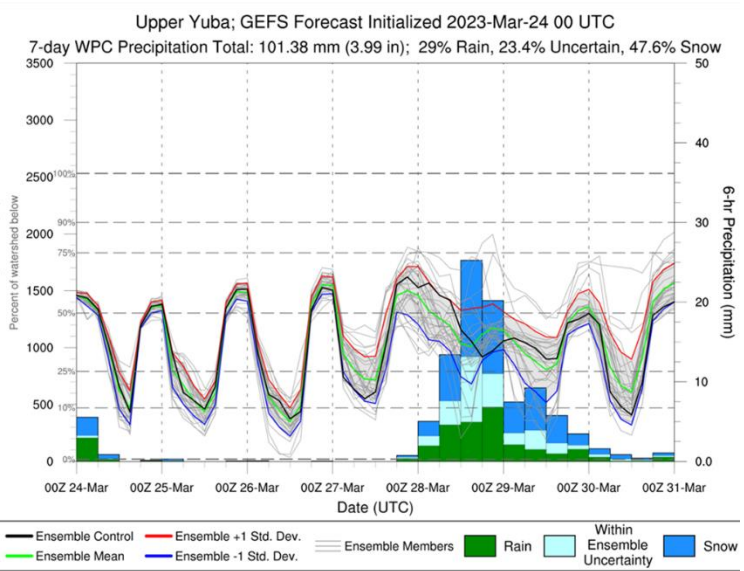
**NWS WPC Winter Precipitation Probability**



**NWS WPC Probabilistic Winter Storm Severity Index**



**00Z GEFS Freezing Level Forecast - Upper Yuba Watershed**



Visit [weather.gov](https://www.weather.gov) for point specific forecast guidance

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

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Stay tuned to the CW3E webpage for a full AR Update