

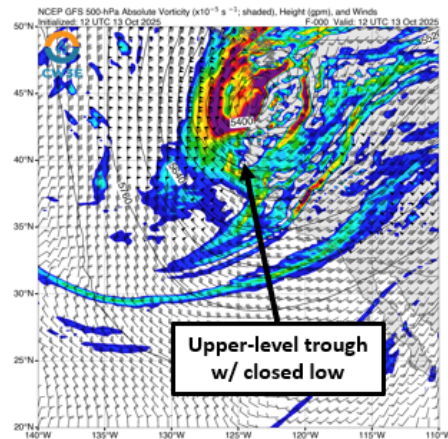
Quick Summary of the Recent Storm in California

Updated: 17 October 2025

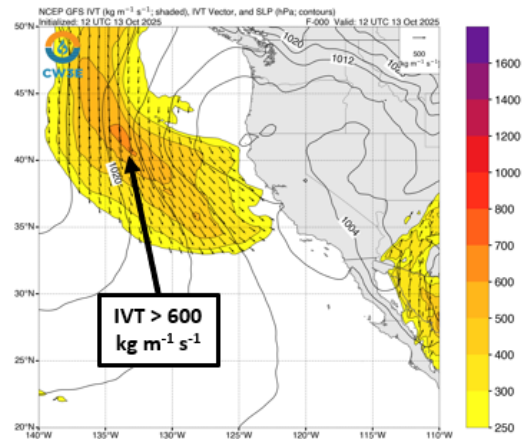
- A strong upper-level trough and associated cutoff low moved southward along the California coast between 13-14 October 2025, bringing heavy rain, mountain snow, and severe weather to portions of Central and Southern California.
- A weak atmospheric river (AR) with IVT exceeding $400 \text{ kg m}^{-1} \text{ s}^{-1}$ associated with the cutoff low made landfall in Southern California early on Tue 14 Oct. The event did not meet the Ralph et al. (2019) AR Scale criteria for an AR1 as continuous AR conditions lasted less than 24 hours.
- The south-southwesterly direction of moisture transport was optimal for precipitation enhancement over the Transverse Ranges where more than 3 inches of total precipitation fell over a 72-hour period ending 5 AM PDT on Thu 16 Oct.
- The storm produced more than 2 inches of precipitation in the central and southern Sierra Nevada with widespread areas of 0.5-1.5 inches throughout the state.
- Downtown Los Angeles experienced its wettest October day in 16 years with 1.38 inches of rain. Precipitation was heavy enough to set new daily precipitation records across the state.
- Multiple Severe Thunderstorm Warnings were issued from the National Weather Service, including tornado warnings for Morro Bay and the San Luis Obispo region.
- A Severe Thunderstorm Watch was issued for parts of Southern California, including Los Angeles; the first such watch for the area in more than 17 years.
- Two narrow cold-frontal rainbands (NCFR) with short-duration high-intensity rainfall developed as the storm moved southward.
- Significant snowfall (> 12 inches) occurred over the higher terrain of the central Sierra Nevada.
- Evacuation warnings, some mandatory, were issued for locations in many of the recent Southern California burn scars due to the possibility of debris flows.
- The National Weather Service received numerous reports of flooding, wind damage, and landslides across the state, as well as two confirmed funnel clouds. The National Weather Service is investigating a possible tornado at Flip Flop Farms in Pescadero that occurred on Mon 13 Oct.
- Precipitation from this event should bring some drought relief and help reduce the risk of wildfire in portions of coastal Southern California. A study by Cayan et al. (2022) showed that the risk of large fires in this region is significantly reduced after autumn onset precipitation of ~ 0.35 inches or greater in a 3-day period.

GFS 500-hPa Heights, Vorticity, and Wind Analysis

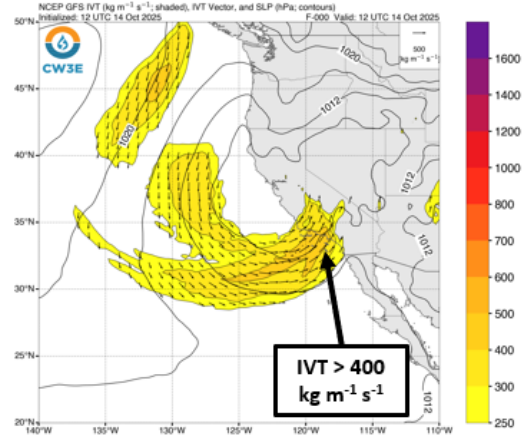
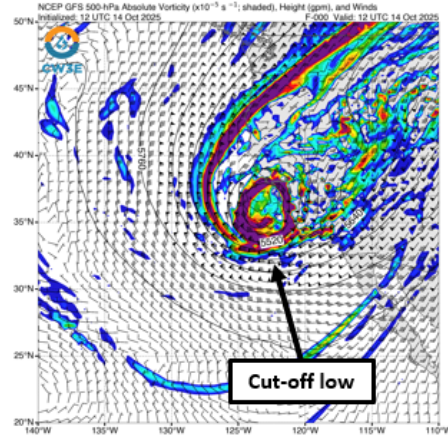
Valid:
5 AM PT
13 Oct



IVT and SLP Analysis

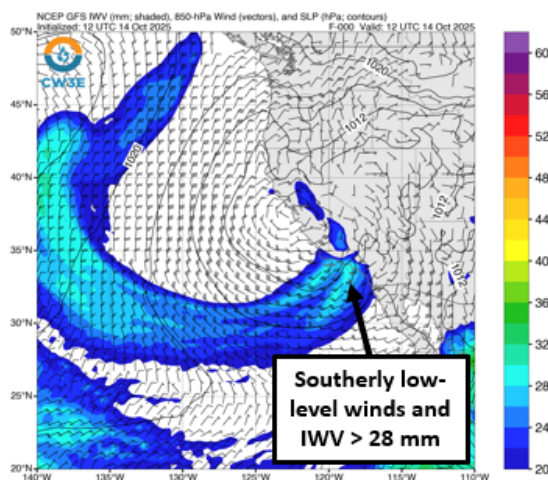


Valid:
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14 Oct

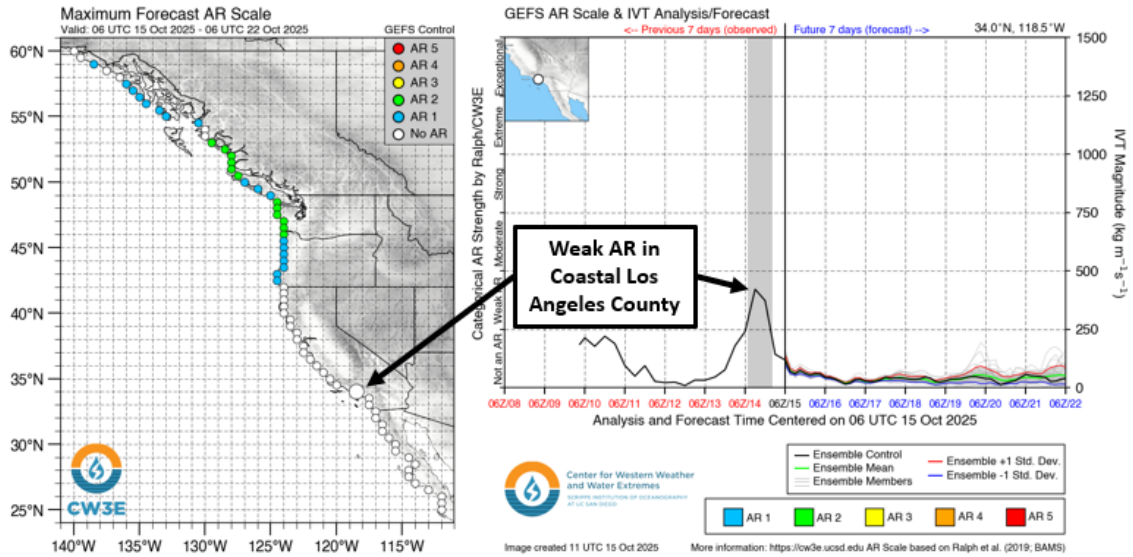


GFS IWV, SLP, and 850-hPa Wind Analysis

Valid:
5 AM PT
14 Oct

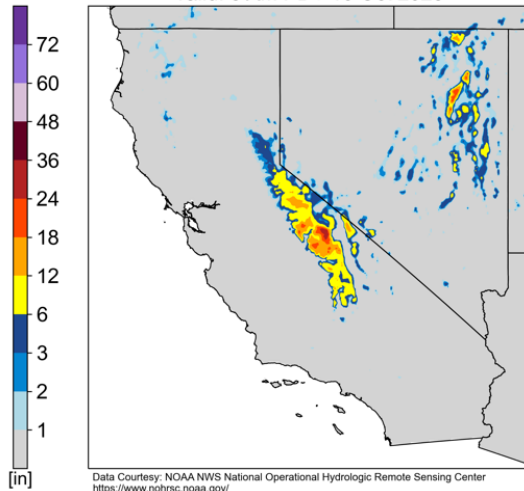


GEFS Control AR Scale Analysis



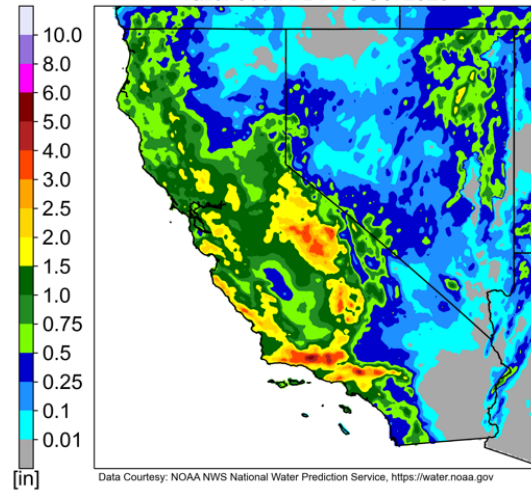
NWS 72-h Snowfall Analysis

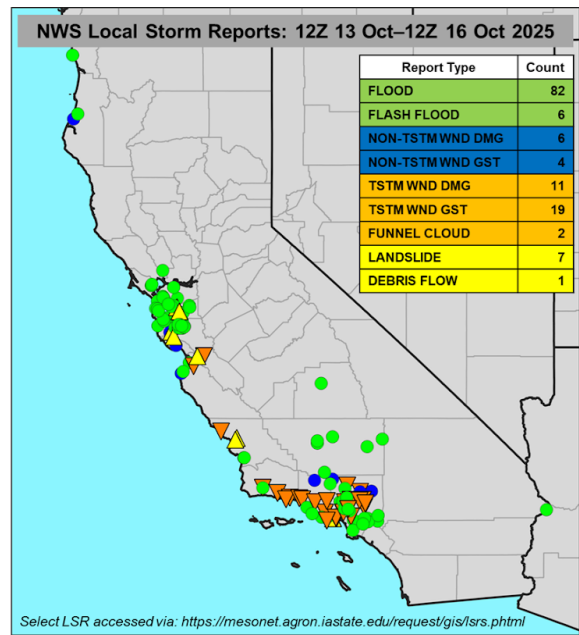
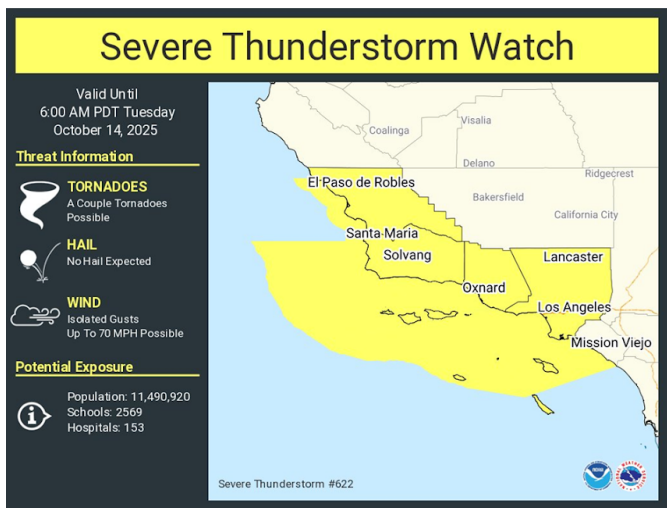
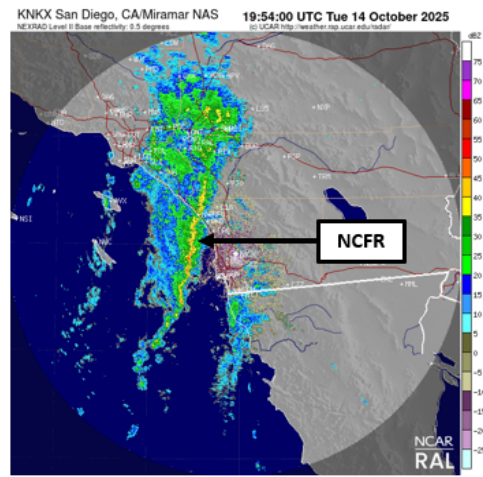
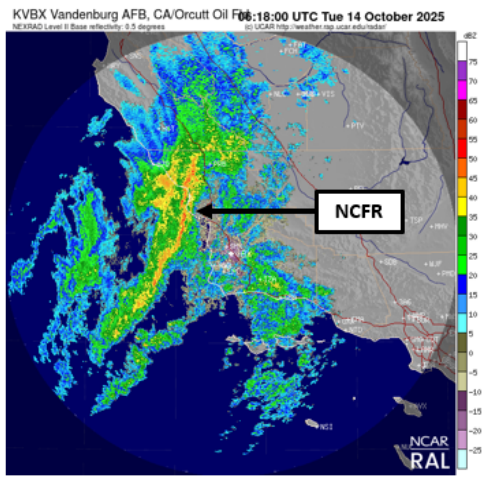
Valid: 5 AM PDT 16 Oct 2025



NWS Stage IV 72-h QPE

Valid: 5 AM PDT 16 Oct 2025





Credit: FOX Weather



Credit: SFGate