Summary

- **Forecast Verification (15–28 Mar):** NCEP Week 3 AR activity forecasts verified during 15–21 Mar; neither model’s Week 3 AR activity forecasts verified during 22–28 Mar
  - Multiple ARs made landfall across the Pacific Northwest and Northern California during 15–21 Mar

- **Week 2 forecasts (5–11 Apr):** AR landfall tool and AR activity forecasts show the possibility of landfalling AR activity over the US West Coast during Week 2, but NCEP and ECMWF ensembles disagree on landfall location
  - ECMWF landfall tool is showing higher (lower) probabilities of AR conditions in coastal Washington (California) on 4–5 Apr
  - NCEP Week 2 AR activity forecasts also show potential for landfalling AR activity in the Pacific Northwest on 6–7 Apr

- MJO-related convection is currently very weak, and there is large forecast uncertainty in the evolution of the MJO during the next 2 weeks

- **Week 3 forecasts (12–18 Apr):** NCEP model is predicting below-normal AR activity across the entire western US, especially in California and Arizona

- NCEP model shows high confidence in the occurrence of persistent ridging west of California during Weeks 1-2
  - The West-Ridge type is typically associated with wet conditions in the Pacific Northwest and dry conditions in Central and Southern California

*Note: ECMWF subseasonal AR activity and ridging forecasts are unavailable at this time*
Looking Back: Week 3 AR Activity Forecasts

Valid: 15–21 Mar 2022

NCEP Week 3 Forecast Verified
• NCEP: Above-normal AR activity over the Pacific Northwest and Northern California
• ECMWF: Above-normal AR activity over Central and Southern California

Valid: 22–28 Mar 2022

Neither Week 3 Forecast Verified
• NCEP: Slightly above-normal AR activity over the Pacific Northwest; slightly below-normal AR activity over Central and Southern California
• ECMWF: Below-normal AR activity much of the US West Coast, especially California

A stronger AR that remained mostly offshore brought additional precipitation to western Washington and northwestern Oregon on 20–22 Mar.

Another AR brought about 1–3 inches of precipitation to portions of coastal California and the Sierra Nevada on 27–29 Mar.

Observed precipitation during 14–21 Mar is generally consistent with the NCEP Week 3 AR activity forecasts valid during the same period.
Week 2 (Subseasonal Time Scales)

16-d GEFSv12 Prob of IVT>250 kg/(ms)

Moderate probabilities (40–70%) of AR conditions over Oregon and California on 4–5 Apr

Week 1 (Weather Time Scales)

Model Run: 00Z Mon 28 Mar 2022

Weather timescale is not a focus on this S2S Outlook
Low-to-moderate probabilities (30–50%) of AR conditions over the Pacific Northwest on 4–5 Apr.
EPS Minus GEFS AR Landfall Tool: Valid 00Z 28 Mar – 12 Apr

Week 1 (Weather Time Scales)

Model Run: 00Z Mon 28 Mar 2022

Week 2 (Subseasonal Time Scales)

EPS minus GEFS Prob of IVT>250 kg/(ms)

Higher (lower) probabilities of AR conditions over Washington (California) on 4–5 Apr

Weather timescale is not a focus on this S2S Outlook

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• NCEP is showing the possibility of landfalling AR activity along the US West Coast on 6–7 Apr

• Likelihood of AR activity is highest in the Pacific Northwest (30–60% probability)

• NCEP is showing low probabilities of AR activity along the US West Coast during the remainder of Week 2 (5–11 Apr)

Note: ECMWF Week 2 AR activity forecasts are unavailable at this time
Subseasonal Outlooks: Weeks 1–2 Ridging Forecasts (NCEP)

- NCEP is showing high confidence (88% ensemble agreement) in the occurrence of the West-Ridge type during Weeks 1–2 (28 Mar – 11 Apr)

- The West-Ridge type is typically associated with wet conditions over the Pacific Northwest and dry conditions over Central and Southern California

Note: ECMWF Weeks 1–2 ridging forecasts are unavailable at this time
NCEP is forecasting below-normal AR activity over the entire western US during Week 3 (12–18 Apr), especially in California and Arizona.

Note: ECMWF Week 3 AR activity forecasts are unavailable at this time.
Subseasonal Outlooks: Weeks 3–4 Ridging FORECASTS (NCEP)

NCEP is showing moderate confidence (56% ensemble agreement) in the occurrence of the South-Ridge type during Weeks 3–4 (11–25 Apr).

The South-Ridge type is typically associated with wet conditions in the Pacific Northwest and widespread dry conditions throughout the southwestern US.

Note: ECMWF Weeks 3–4 ridging forecasts are unavailable at this time.
• Water-year-to-date precipitation is below normal across much of the western US, especially in California, southern Nevada, and Arizona
• Water-year-to-date precipitation is near-normal in western Washington and above-normal in western Nevada
• Total water year precipitation in the Northern Sierra Nevada is currently 76% of normal
• Northern Sierra Nevada snowpack is only 31% of normal