Seasonal Climate Forecast Verification
March – May 2020
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Format and Purpose:

- A side-by-side comparison of the “Seasonal Climate Forecast” vs. what (Actually Occurred) is done for both the 1-month & 3-month forecasts.*
- The accuracy of each forecast is reviewed, and the need for analog-year updates is examined.
- This is part of an ongoing assessment of the utility of this forecast method.**

*Utilizes 1981-2010 long-term averages

**See “Forecasting Methods…” at:

https://oda.direct/Weather
The predicted (left) upper-level trough/ridge anomalies were shifted slightly east of where they actually set up (right)...putting weak anomalous troughing over Oregon. *A forecast “miss.”*
March 2020

(Forecast Issued February 20, 2020) / (Actual)

Forecast Temperatures

Actual Temperatures

Data courtesy of the National Centers for Environmental Information (NCEI)
March 2020
(Forecast Issued February 20, 2020)/(Actual)

Forecast Precipitation

Actual Precipitation

Data courtesy of the National Centers for Environmental Information (NCEI)
March 2020

(Forecast Issued February 20, 2020)/(Actual)

- Temperatures slightly-above average west and near-to-slightly-below average east. (The major pattern shift predicted by April arrived, but a little sooner than expected, reversing temperature trends.) *A “forecast miss.”*

- Below-average precipitation west...closer to average east. (Precipitation was below average statewide...especially west.) *A “forecast hit.”*

- Decrease in snowpacks, relative to average. (Due to the major pattern shift noted above, snowpacks held steady or increased slightly.) *A “forecast miss.”*
Strong positive “warm” anomalies were both predicted (left) and observed (right) in the Gulf of Alaska. However, the observed anomalies are shifted just far enough eastward to significantly affect Oregon (warmer). *Forecast “slightly out-of-phase.”*
April 2020
(Forecast Issued March 19, 2020)/(Actual)

Forecast Temperatures

Actual Temperatures

Data courtesy of the National Centers for Environmental Information (NCEI)
Below-average temperatures, which should help to slow the annual mountain snowmelt. (The “cool-down” experienced during the second half of March extended into the first week of April…slowing the annual snow-melt in the mountains. However, a shift to warmer conditions prevailed for the remainder of the month…melting the snowpacks faster than expected…see next 2 slides.) *Mostly a “forecast miss.”*

Below-average precipitation. (Precipitation was below average statewide.) *A “forecast hit.”*
Negative anomalies were both predicted (left panel) and observed (right panel) over the Gulf of Alaska. However, anomalies observed over Oregon were minimal, as opposed to the forecast of slightly-negative. A “partial forecast hit.”
May 2020

(Forecast Issued April 16, 2020) / (Actual)

Forecast Temperatures

Actual Temperatures

Data courtesy of the National Centers for Environmental Information (NCEI)
May 2020
(Forecast Issued April 16, 2020)/(Actual)

Forecast Precipitation

Actual Precipitation

Data courtesy of the National Centers for Environmental Information (NCEI)
May 2020
(Forecast Issued April 16, 2020)/(Actual)

- Weak anomalous upper-level troughing over the western U.S. (Anomalous troughing set up farther offshore than predicted, resulting in slightly-warmer-than-expected upper-level temperatures over Oregon.) *Mostly a “forecast hit.”*

- Below-average temperatures. (Temperatures were slightly-above average.) *A “forecast miss.”*

- A switch to near or above-average precipitation. (Precipitation was above average statewide.) *A “forecast hit.”*
Positive anomalies in the Gulf of Alaska (right) were much greater than predicted (left) and extended a bit more into the Pacific Northwest. However, the general anomaly pattern was correctly indicated by the analogs. *Mostly a “forecast hit.”*
March – May 2020
(Forecast Issued February 20, 2020) / (Actual)

Forecast Temperatures

Actual Temperatures

Data courtesy of the National Centers for Environmental Information (NCEI)
March – May 2020
(Forecast Issued February 20, 2020) / (Actual)

Forecast Precipitation

Actual Precipitation

Data courtesy of the National Centers for Environmental Information (NCEI)
Below-average early-spring temperatures should help to slow the annual snowmelt at higher elevations. (A cool late-March and early April did temporarily slow the snow-melt at higher elevations, but weather-than-average conditions returned in mid-April and continued during much of May.) The overall temperature forecast was too cool, so it was only a “partial forecast hit,” at best.

Near-to-below-average precipitation. (Precipitation was below average, especially west.) A “forecast hit.”
Updated Mid-Month

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