

Seasonal Climate Forecast

January – March 2026

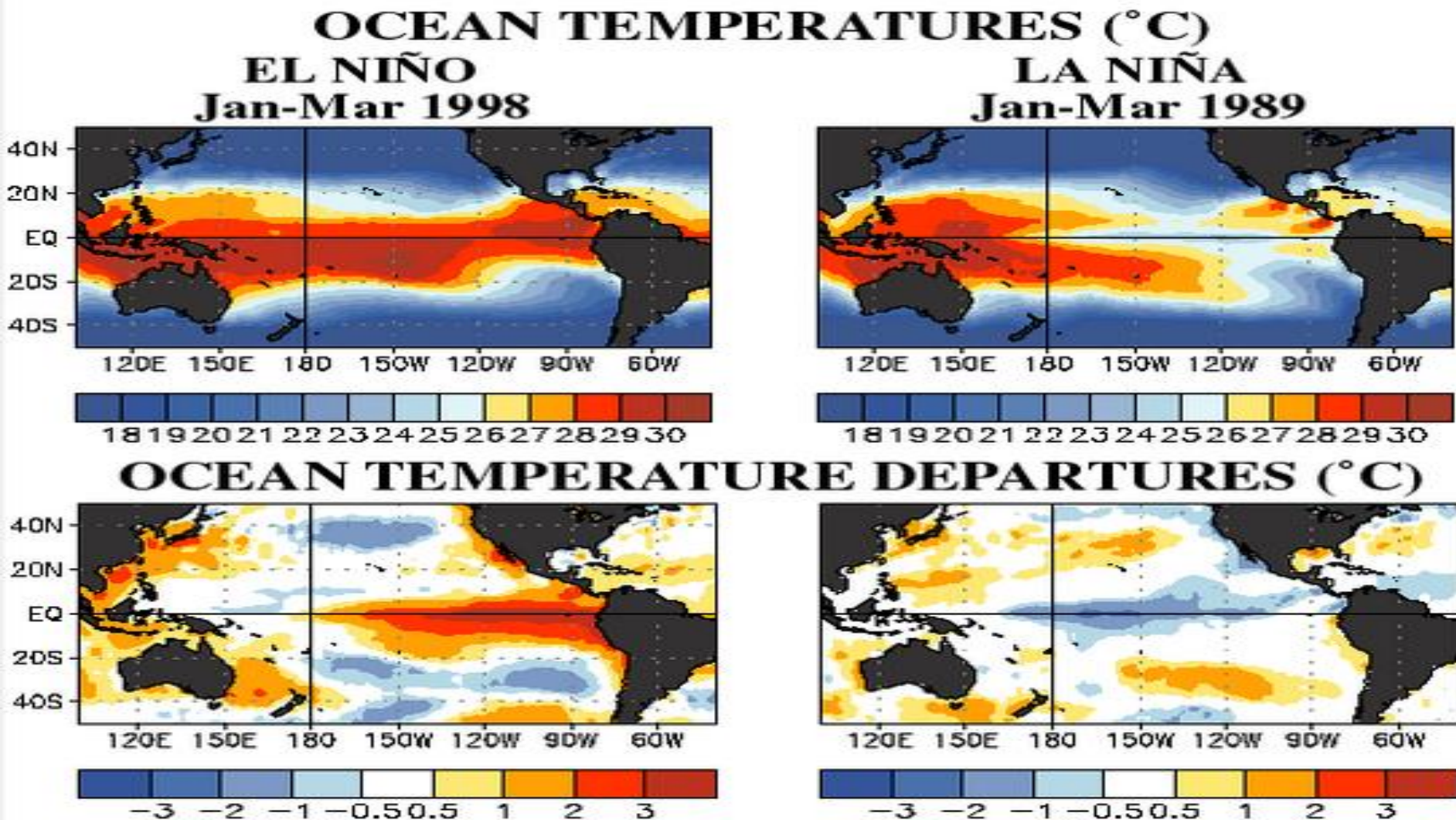
Issued: December 18, 2025

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ODF Team: Julie Vondracheck; Kristin Cody; Sherri Pugh; Gary Votaw

El Niño vs La Niña

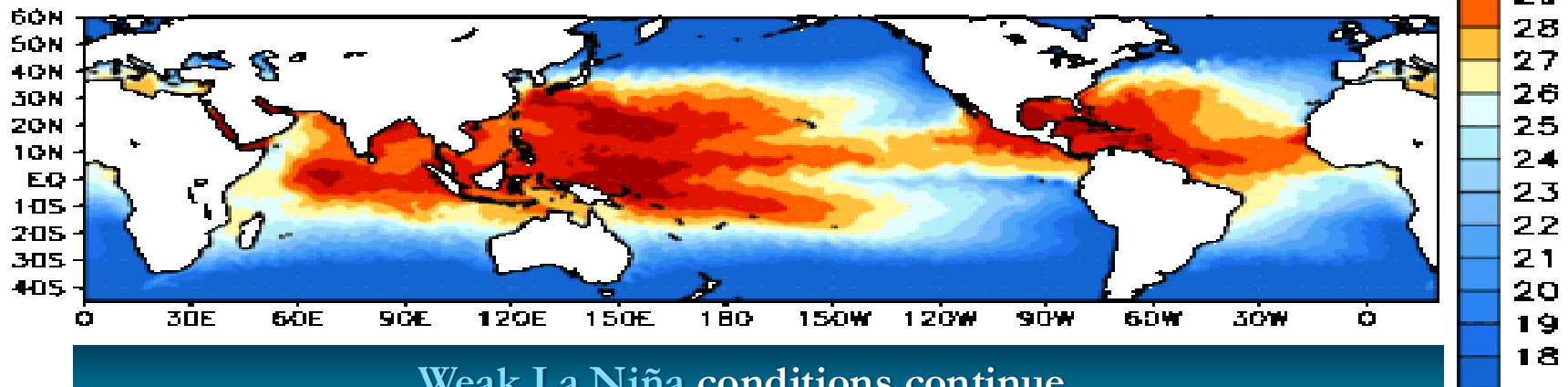
(SST Patterns in the Tropical Pacific Ocean)



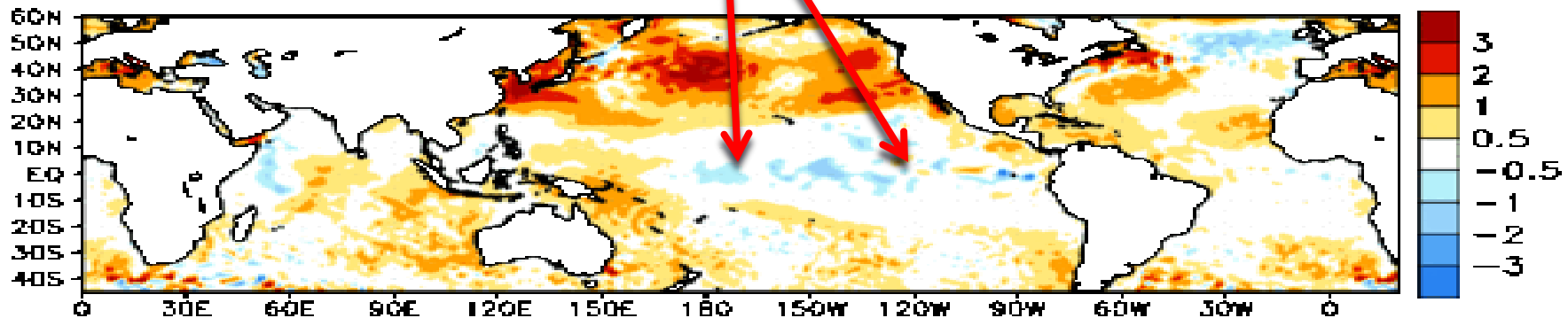
Sea Surface Temperatures (SSTs)

Animated (PowerPoint only) SSTs (top) / Anomalies (bottom)

Week centered on 24 SEP 2025
SST (°C)



Anomalies (°C)



El Niño Southern Oscillation (ENSO)

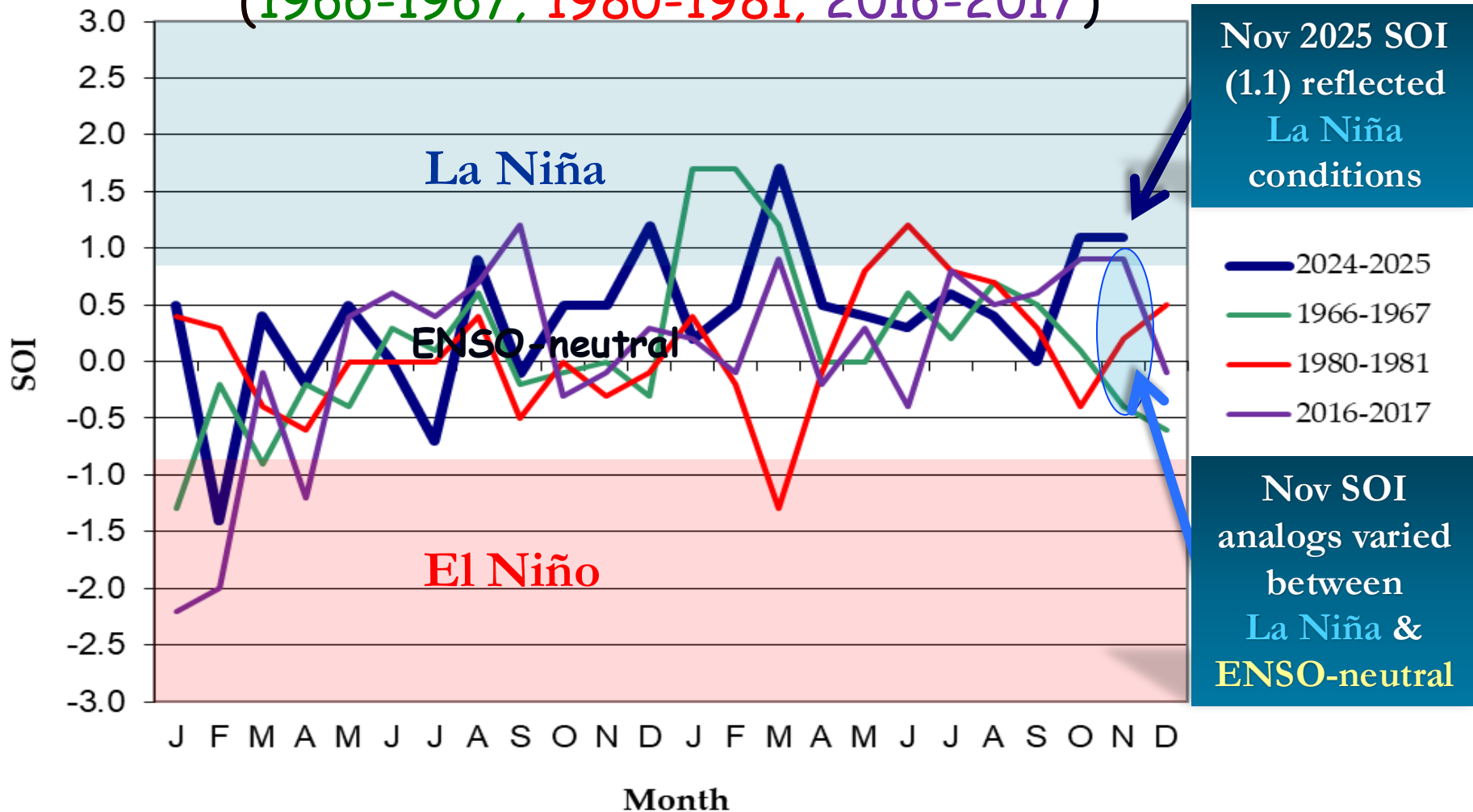
Current Status and Forecast

- The November Southern Oscillation Index (SOI) of +1.1 indicated above-average trade wind strength across the equatorial Pacific Ocean, which is typically associated with La Niña conditions.
- The September – November 2025 Oceanic Niño Index (ONI) dropped to -0.6°C , which is in the weak La Niña range.
- NOAA's Climate Prediction Center (CPC) has issued a La Niña Advisory. They expect La Niña through the December 2025 – February 2026 period, followed by a transition to ENSO-neutral.

Note: This “Seasonal Climate Forecast” does not consider NOAA’s ENSO forecast. It uses only historical and current ENSO conditions to find “analog years” that most-closely match the recent evolution of the ENSO state.

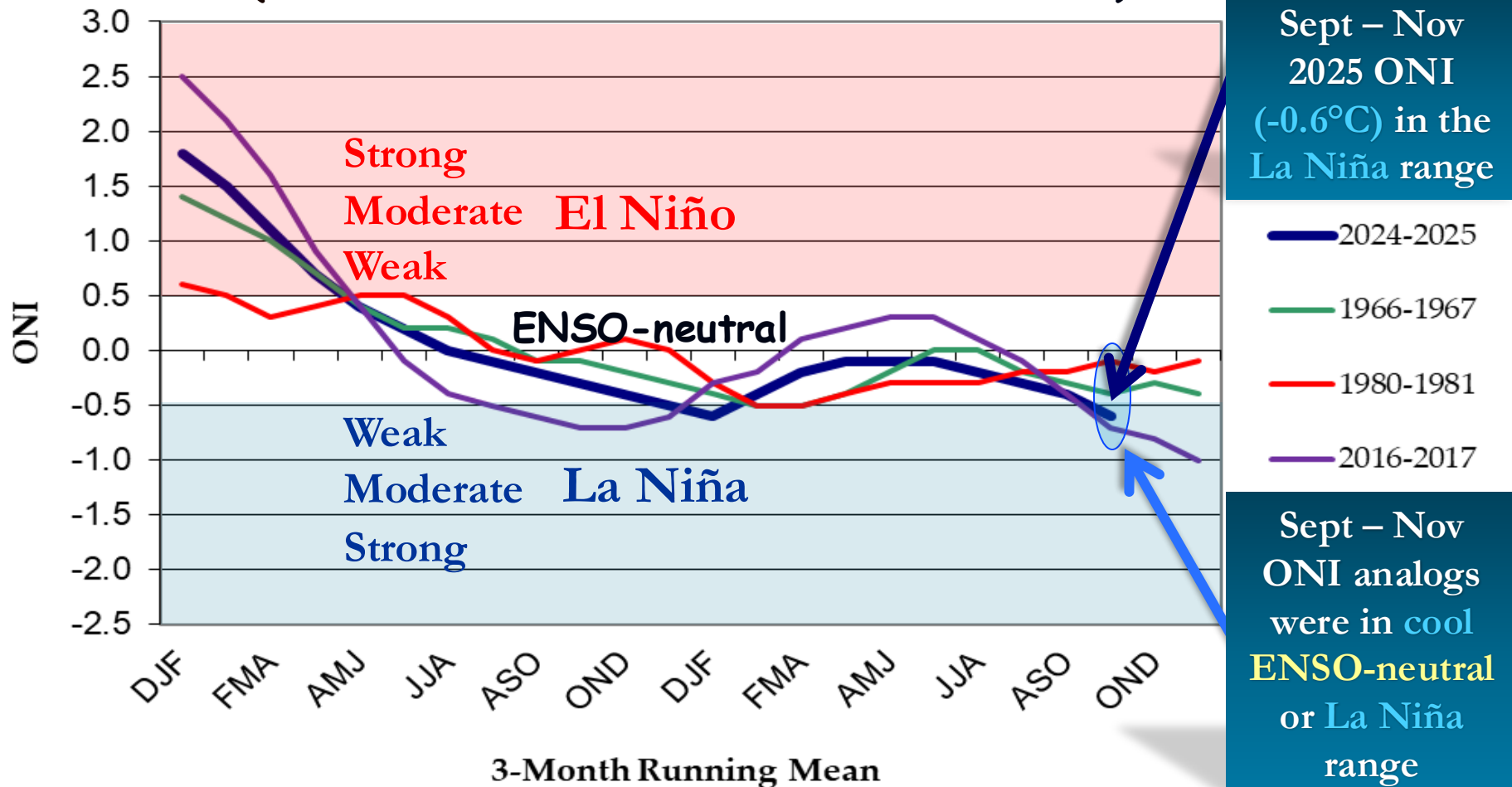
Southern Oscillation Index (SOI)

SOI values from the top "analog years" compared
with the current period (2024-2025)
(1966-1967; 1980-1981; 2016-2017)



Oceanic Niño Index (ONI)

ONI values from the top "analog years"
compared with the current period (2024-2025)
(1966-1967; 1980-1981; 2016-2017)

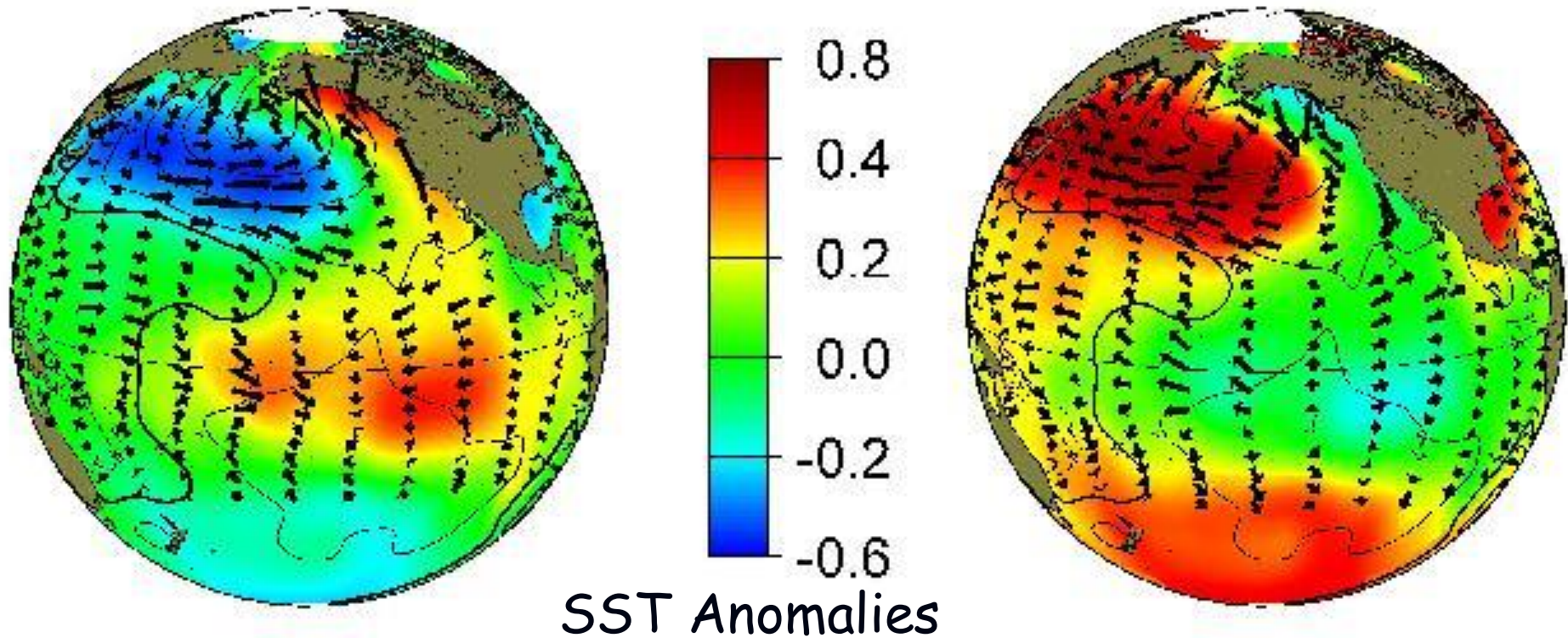


The Pacific Decadal Oscillation (PDO)

(Reflects SST “Phase” in the North Pacific Ocean)

Positive (Warm)
“Phase”

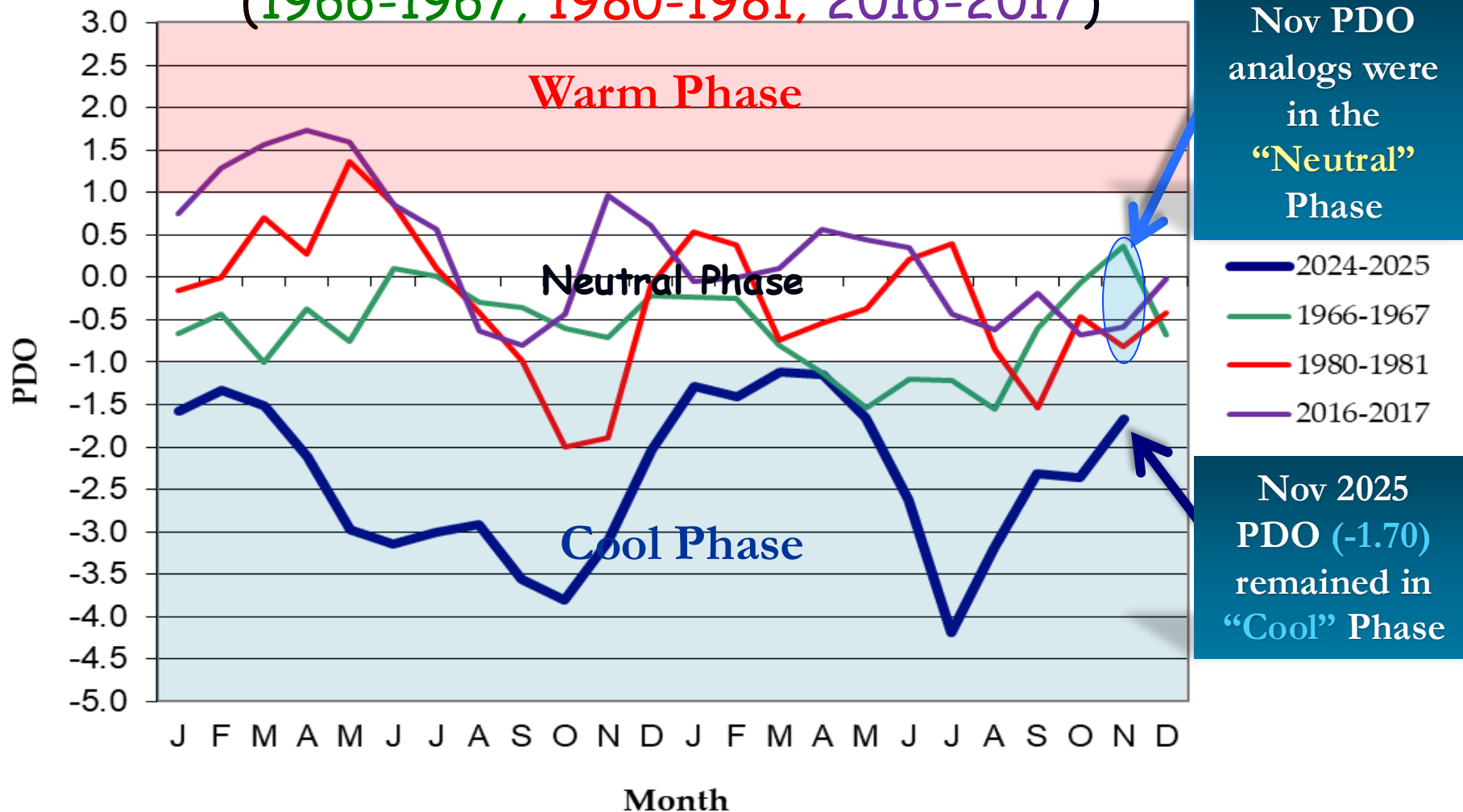
Negative (Cool)
“Phase”



North Pacific Ocean

(Poleward of 20°N Latitude)

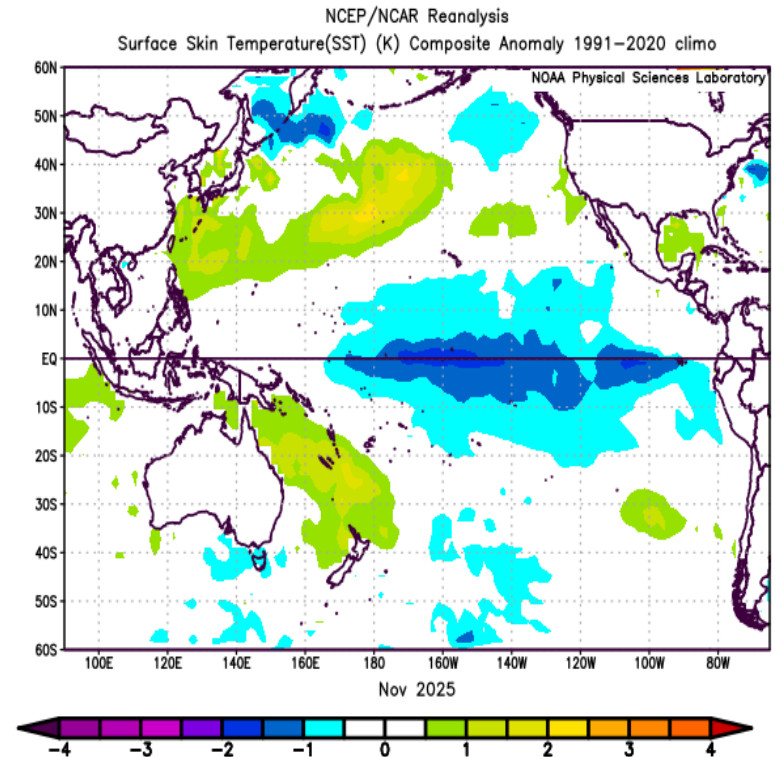
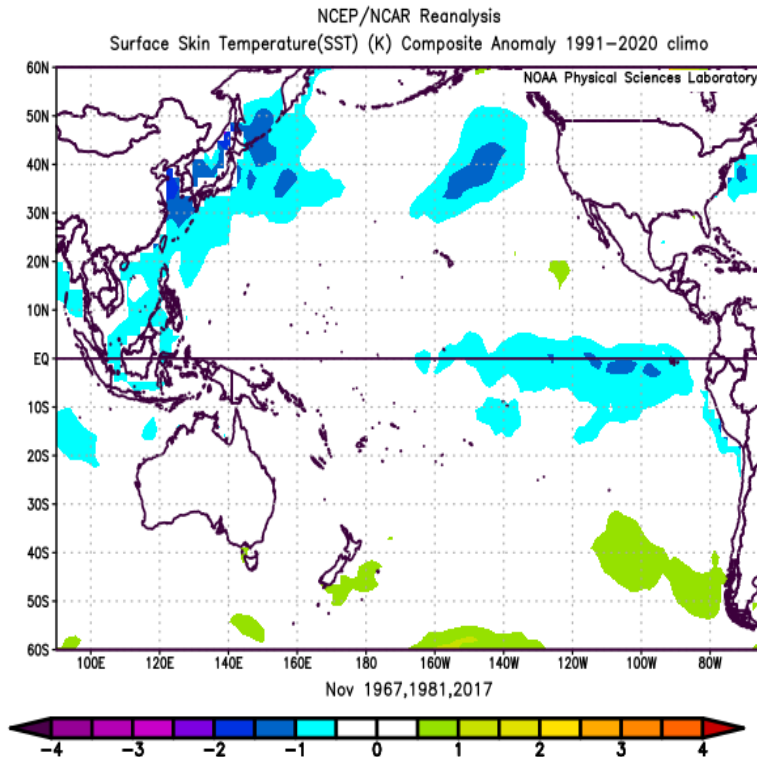
PDO values from the top "analog years" compared
with the current period (2024-2025)
(1966-1967; 1980-1981; 2016-2017)



SST Anomalies Comparison

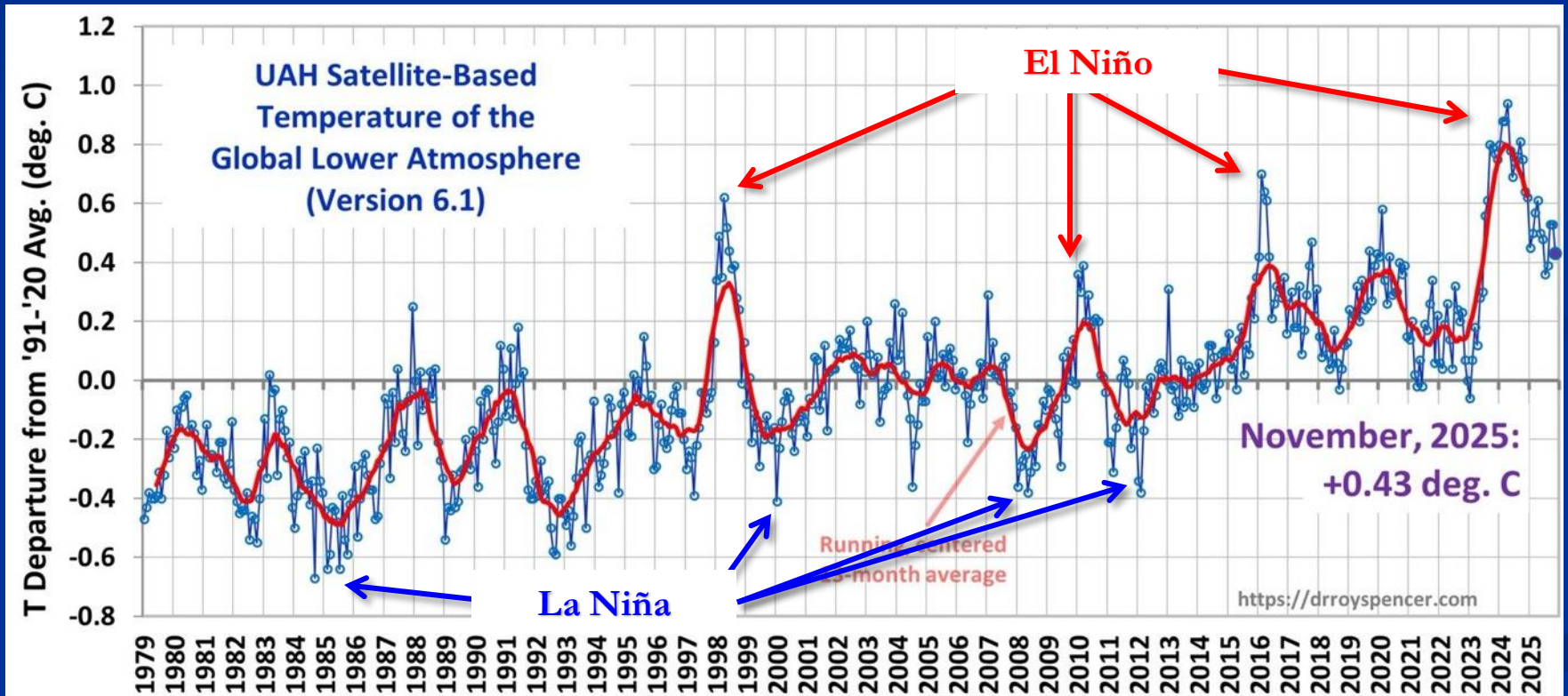
November Analogs

November 2025



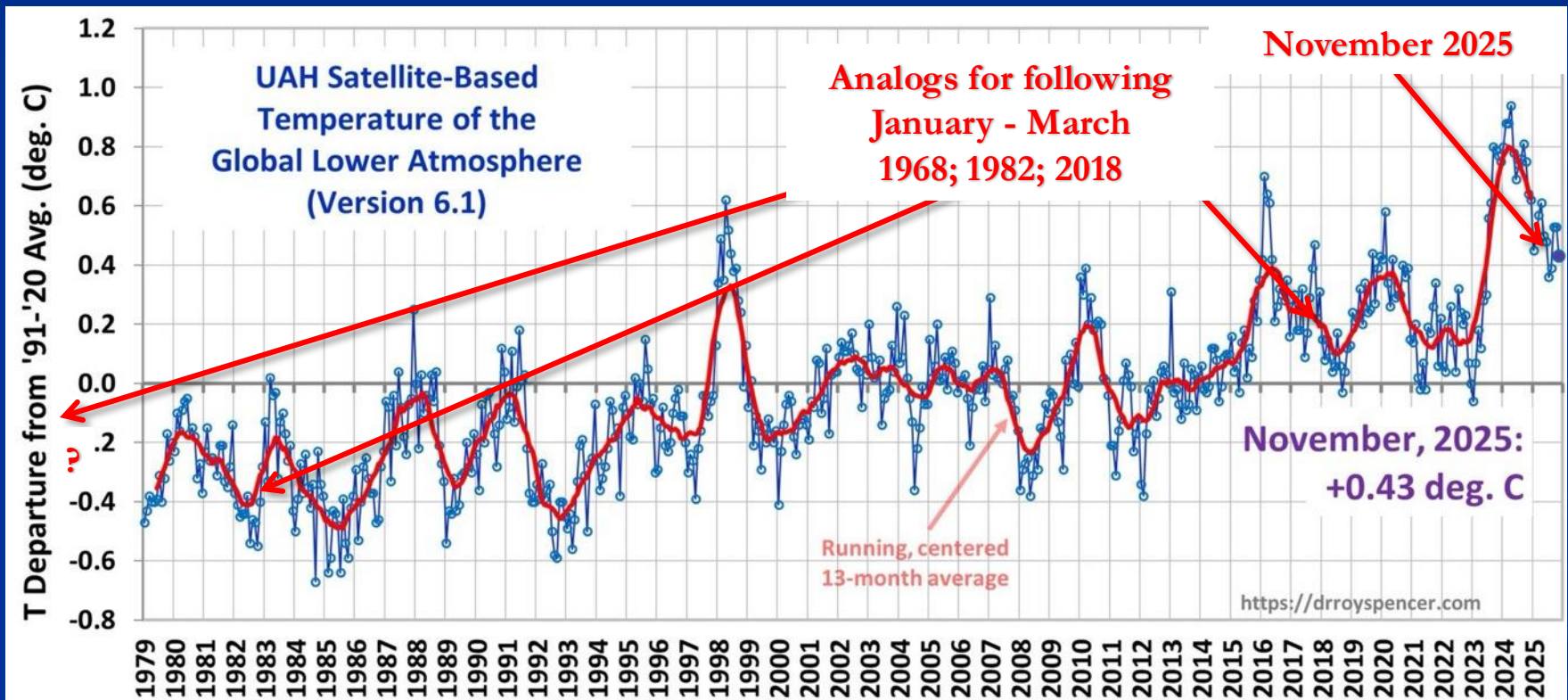
- Analog composite of November SST anomalies (left) is only a “fair” match with the November 2025 SST anomaly pattern (right). The left panel reflects cool ENSO-neutral conditions, while the right panel reflects weak La Niña conditions.

El Niño & La Niña Impact Global Temperatures...



Courtesy: <http://www.drroyspencer.com/latest-global-temperatures/>

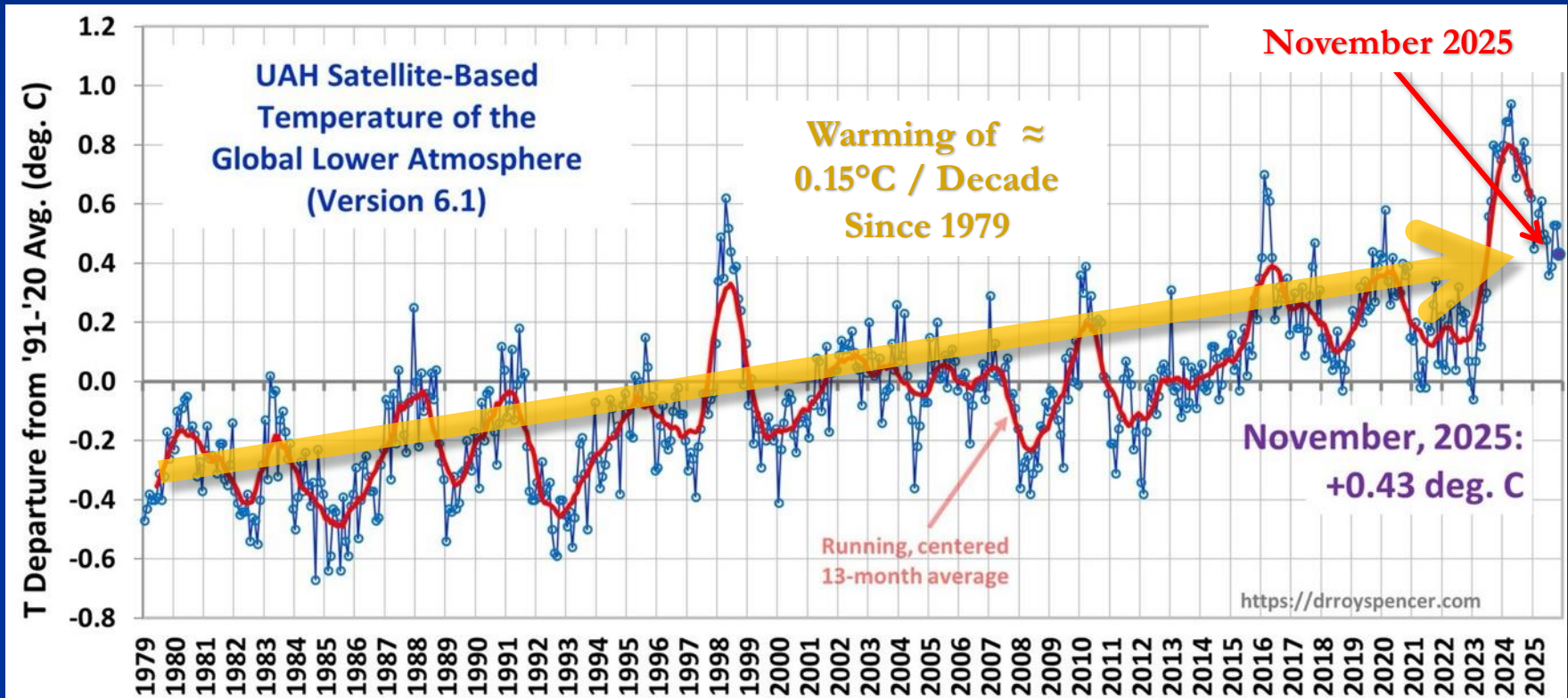
Using ENSO Signal To Find Analog Years



Courtesy: <http://www.drroyspencer.com/latest-global-temperatures/>

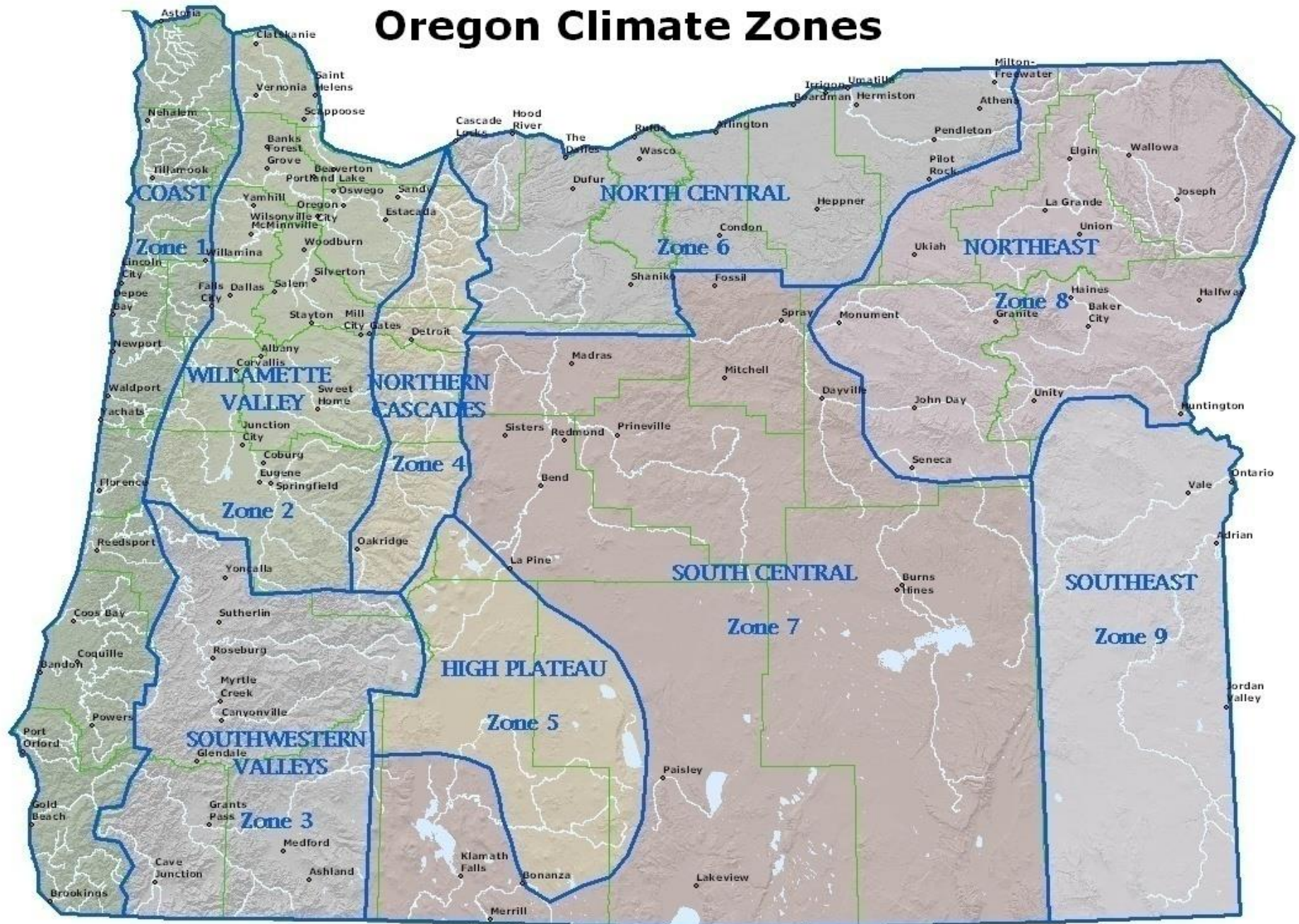
Global Temperature Trends

Increase Error in Analog Forecasts!



Courtesy: <http://www.drroyspencer.com/latest-global-temperatures/>

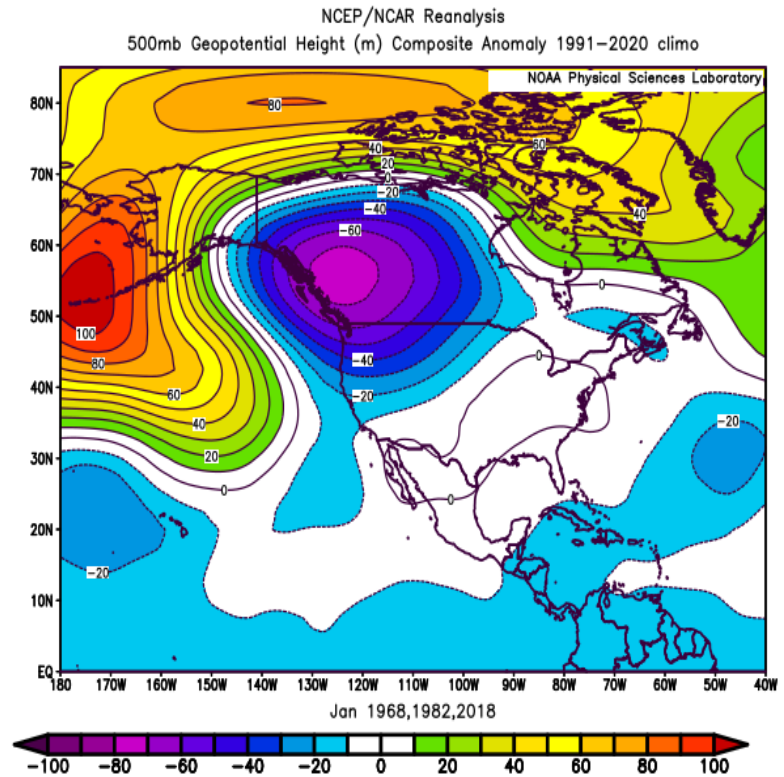
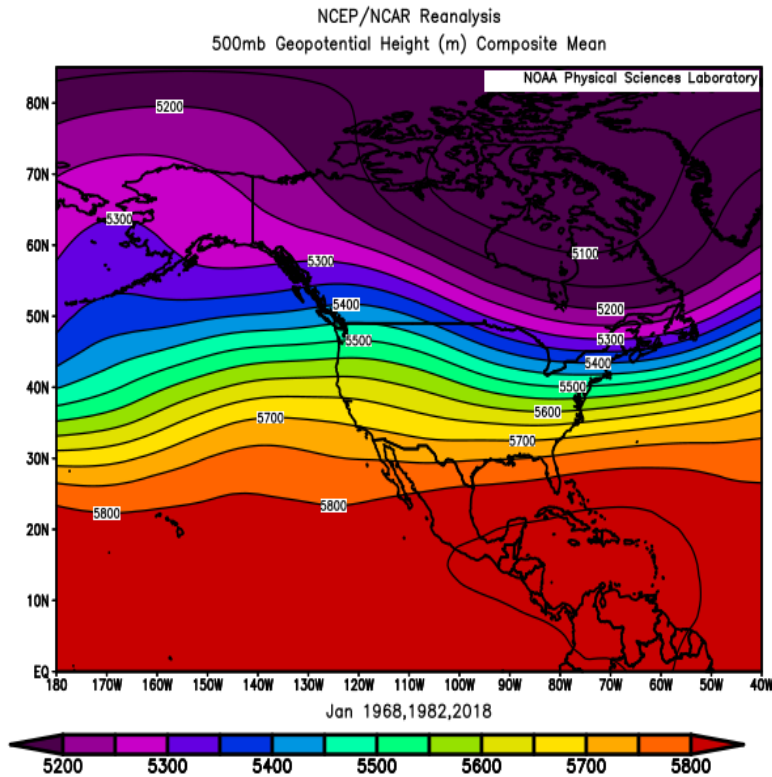
Oregon Climate Zones



January 2026 Forecast

Mean Upper-Air Pattern

Upper-Air Anomalies

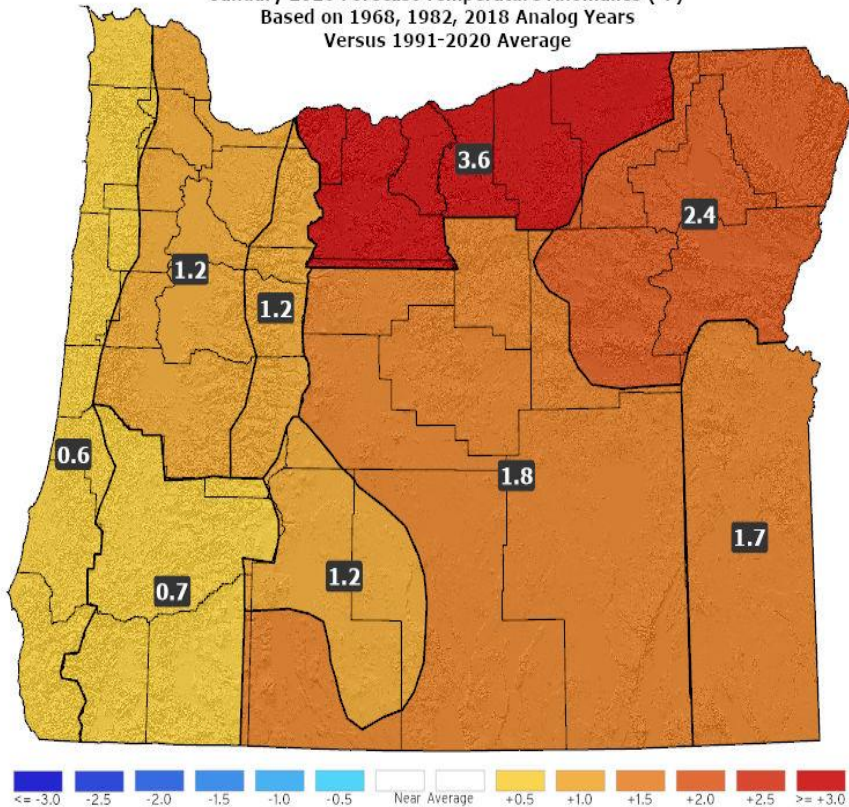


- Analog upper-air patterns diverge by January, with anomalous troughing over Oregon in 1968 & 1982 and anomalous ridging in 2018.
- 1968 & 1982 brought enough cold air southward for western valley snow events, but strong ridging in 2018 prohibited it.

January 2026 Forecast

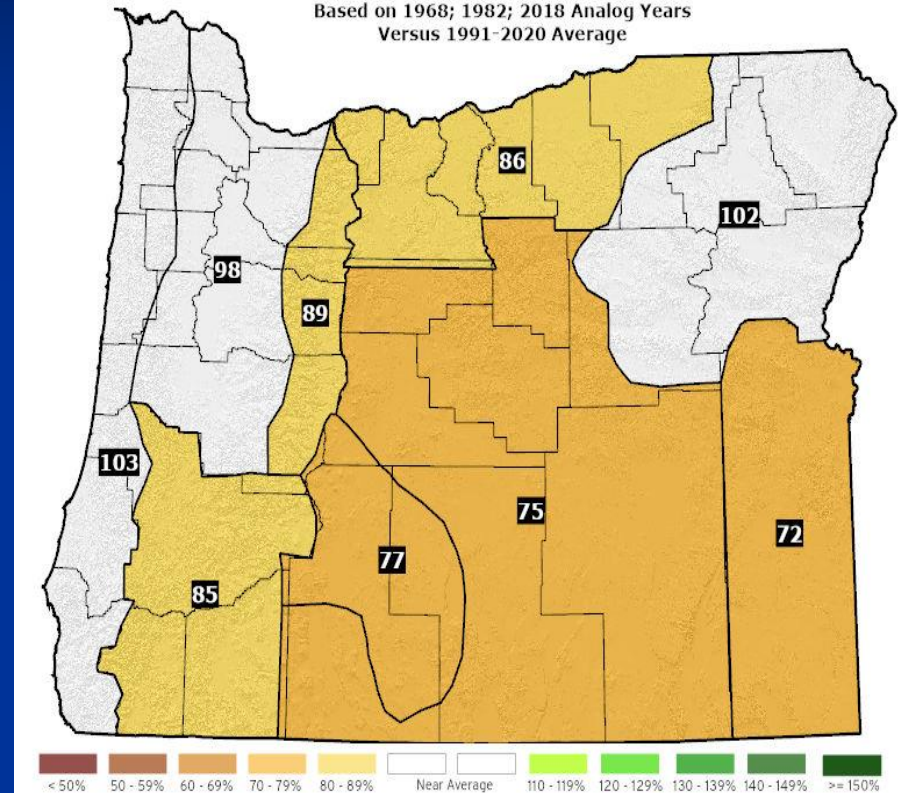
Temperatures

January 2026 Forecast Temperature Anomalies ($^{\circ}\text{F}$)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average



Precipitation

January 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968; 1982; 2018 Analog Years
Versus 1991-2020 Average

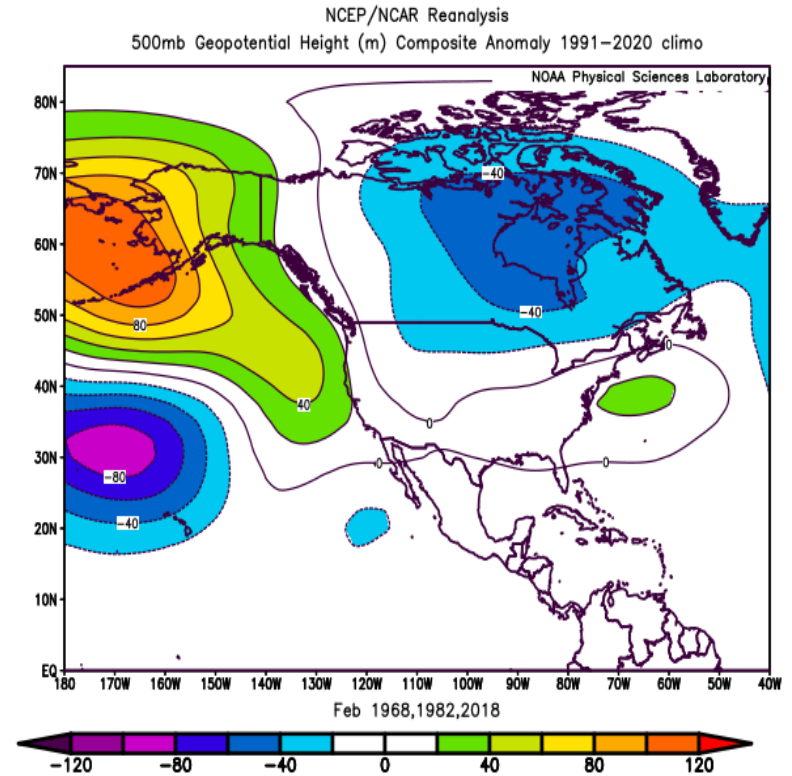
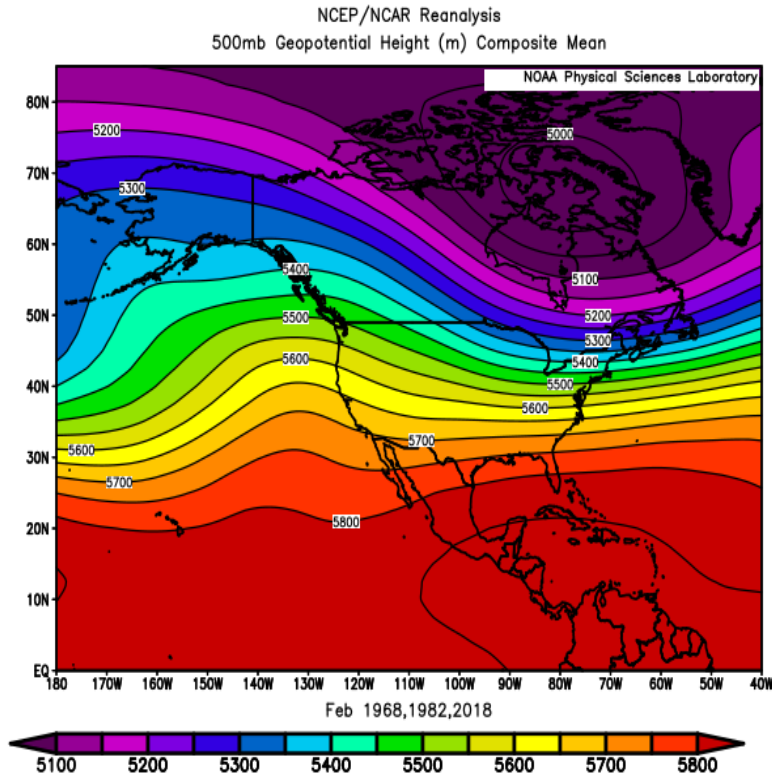


- The “mild” temperature forecast (above) may be misleading. A “blow-torch” warm 2018 “masks” much-cooler 1968 & 1982 analogs.
- The precipitation forecast was more consistent, except 1982 had above-average mountain snow, while 1968 & 2018 had the reverse.

February 2026 Forecast

Mean Upper-Air Pattern

Upper-Air Anomalies

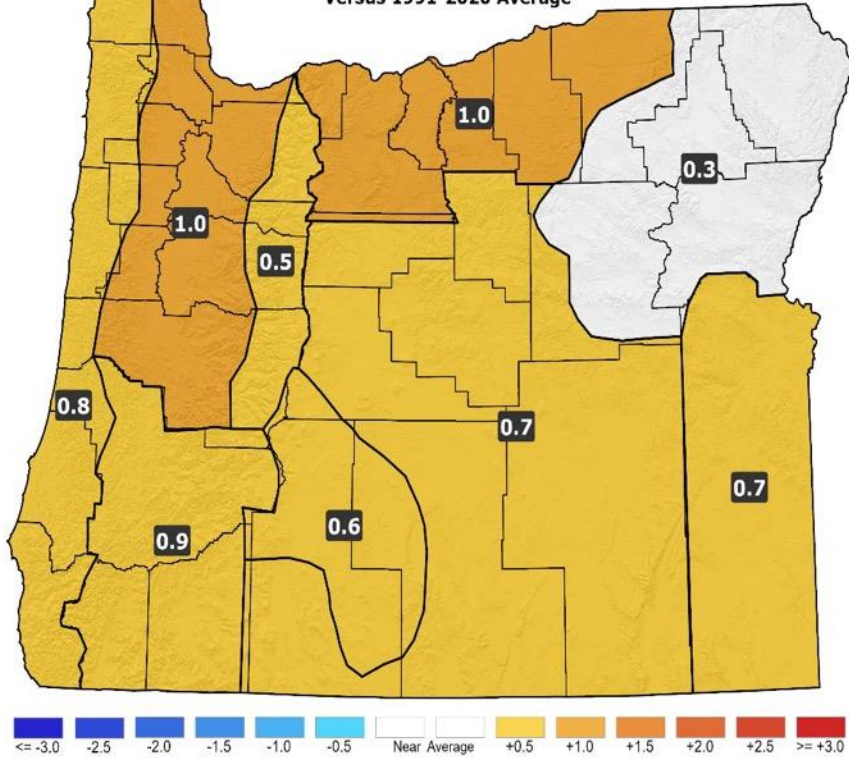


- Analogs had diverse patterns, which lowers forecast confidence. 1968 had anomalous ridging over Oregon, but 1982 & 2018 had stronger jet stream strength over Oregon and more active weather.
- Mountain snowfall also varied considerably among the analog years.

February 2026 Forecast

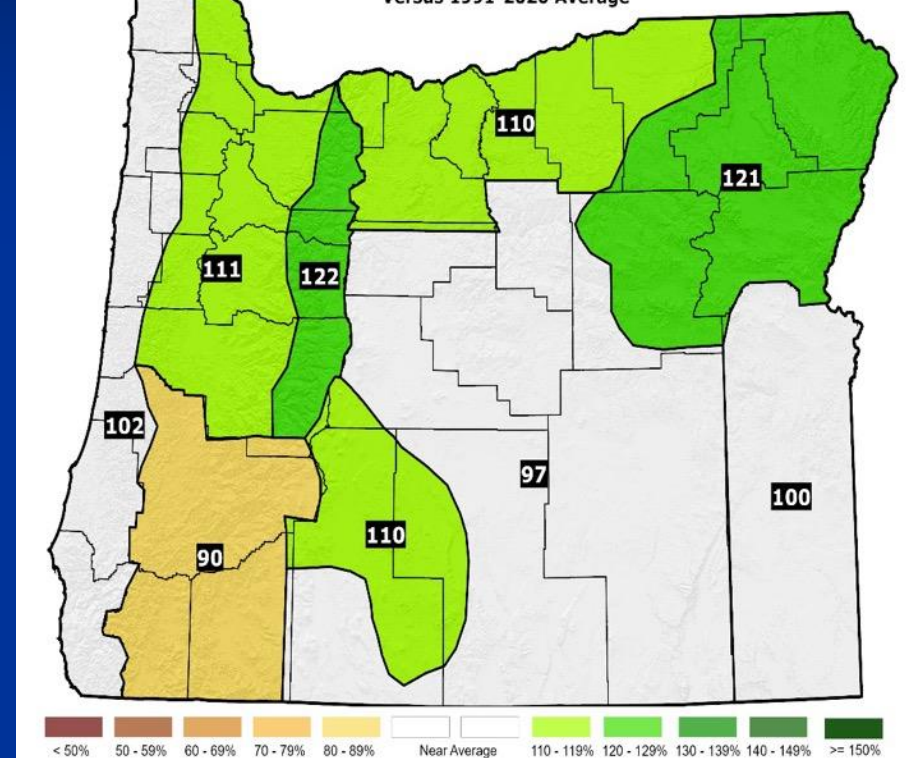
Temperatures

February 2026 Forecast Temperature Anomalies (°F)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average



Precipitation

February 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average

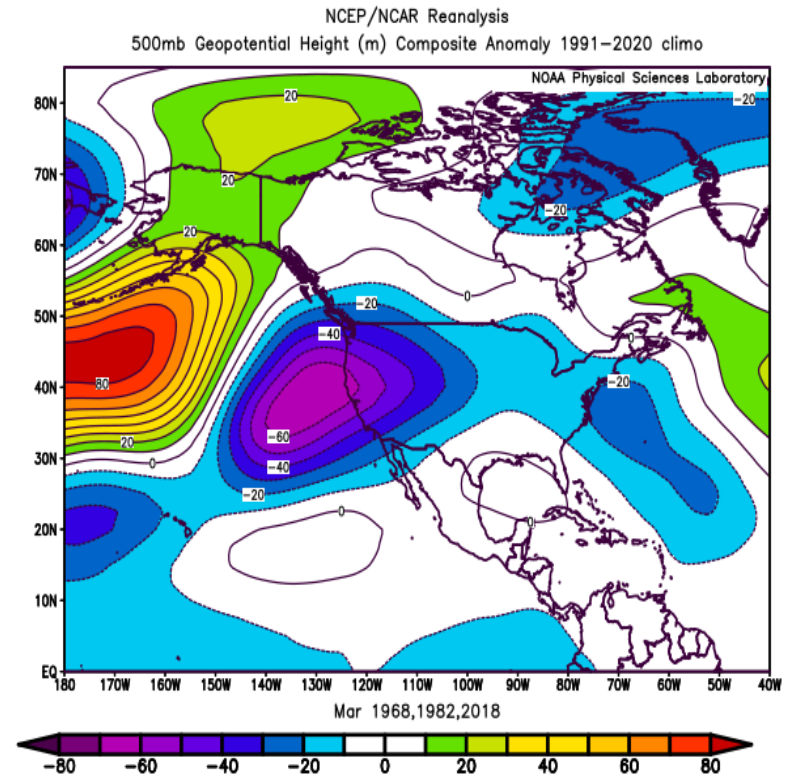
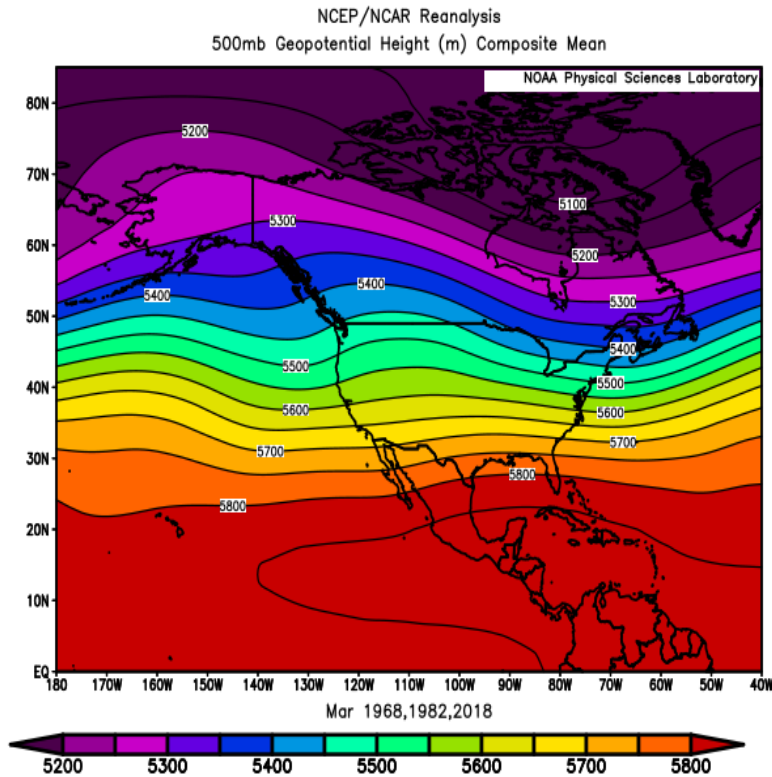


- Huge variation in temperatures...1968 was extremely mild, which skews the forecast warm. 1982 & 2018 were cooler than average.
- Less confidence in the precipitation forecast. 1968 & 1982 were wetter than average...2018 was drier but had significant valley snowfall.

March 2026 Forecast

Mean Upper-Air Pattern

Upper-Air Anomalies

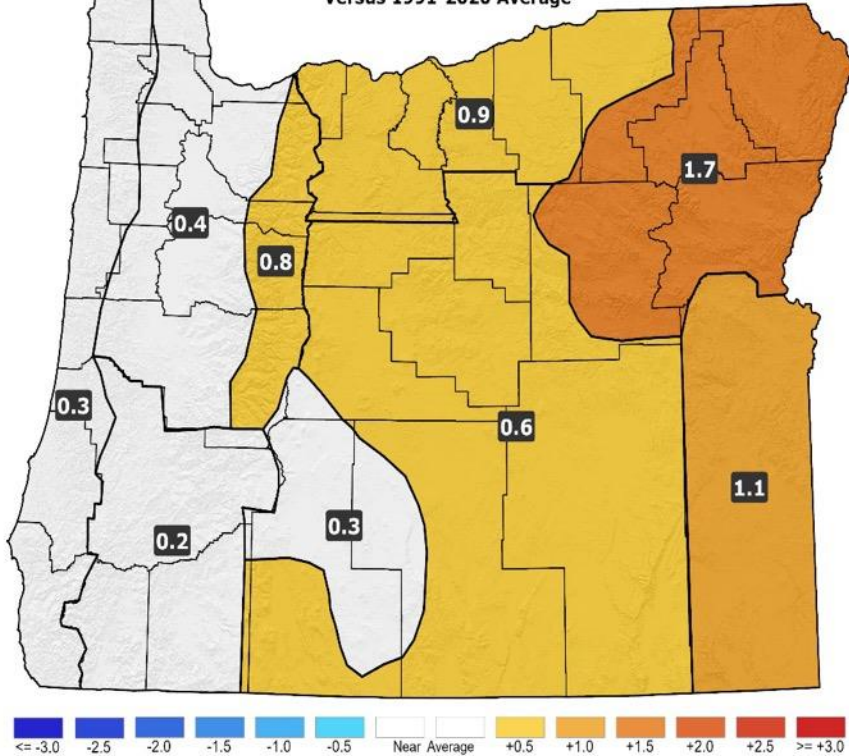


- All analogs had anomalous troughing over Oregon. 1968 had a “split-flow” jet stream pattern, while 1982 & 2018 had dominant SW flow.
- 1968 & 2018 finished the month with below average snow at Crater Lake. In sharp contrast, 1982 had well-above average snow.

March 2026 Forecast

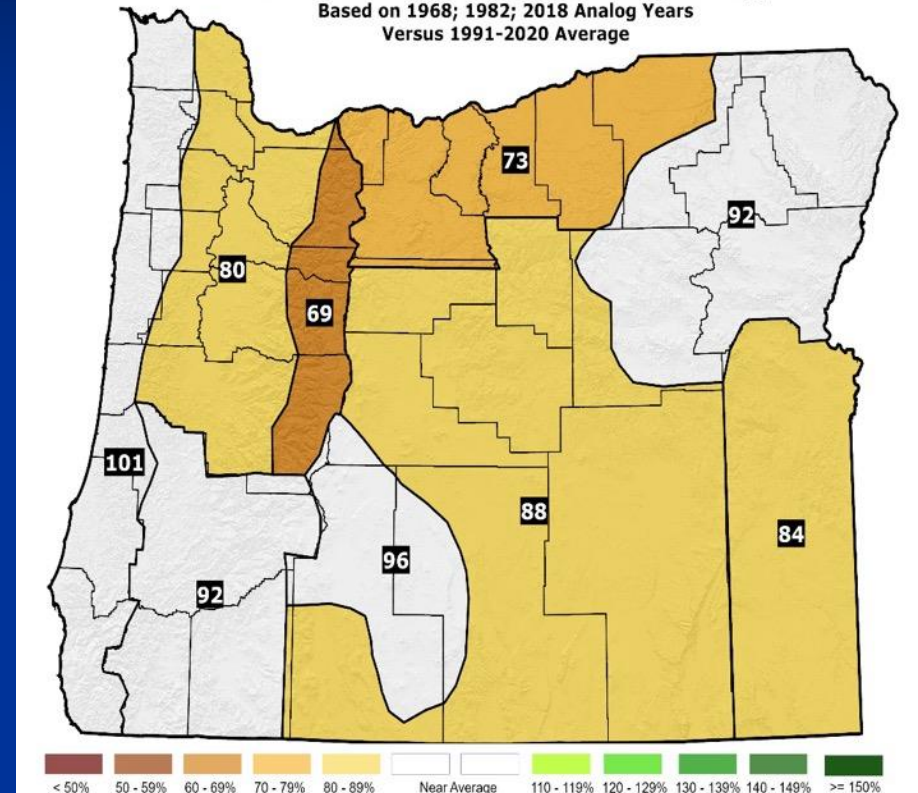
Temperatures

March 2026 Forecast Temperature Anomalies (°F)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average



Precipitation

March 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average

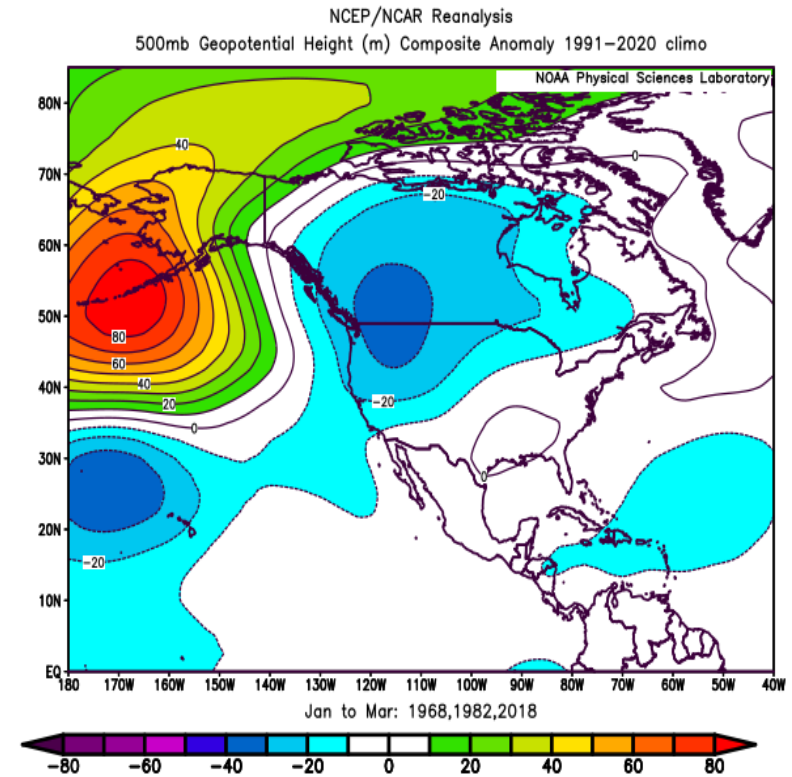
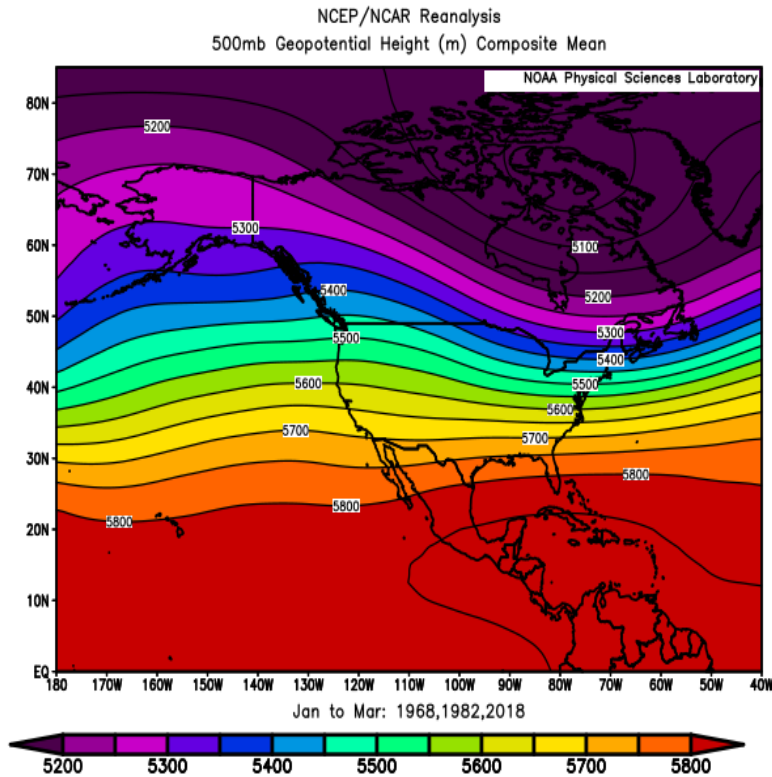


- Analogs exhibited high variability. 1968 was warmer than average, which countered the “cooler” years of 1982 and 2018.
- Signal was consistent for near or slightly below-average precipitation but with large differences in the depth of mountain snowpacks.

January – March 2026 Forecast

Mean Upper-Air Pattern

Upper-Air Anomalies

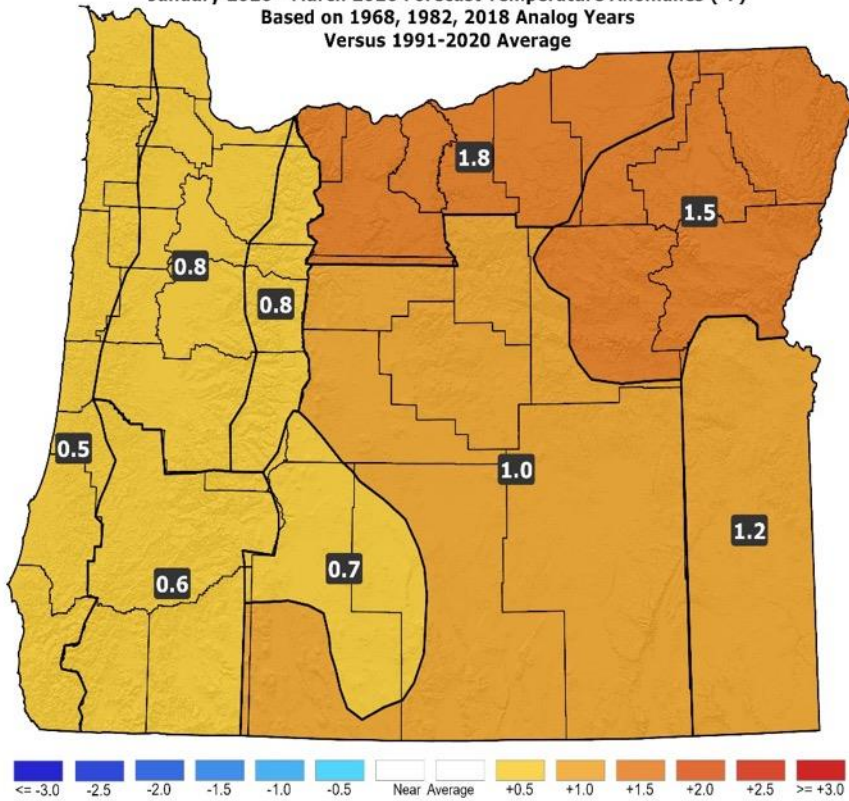


- Consistent with *La Niña* conditions, analog years all had some extent of anomalous troughing over the Pacific Northwest.
- However, 1968 had a mean ridge centered just east of Oregon, while 1982 & 2018 had a mean ridge in the Gulf of Alaska (big difference).

January – March 2026 Forecast

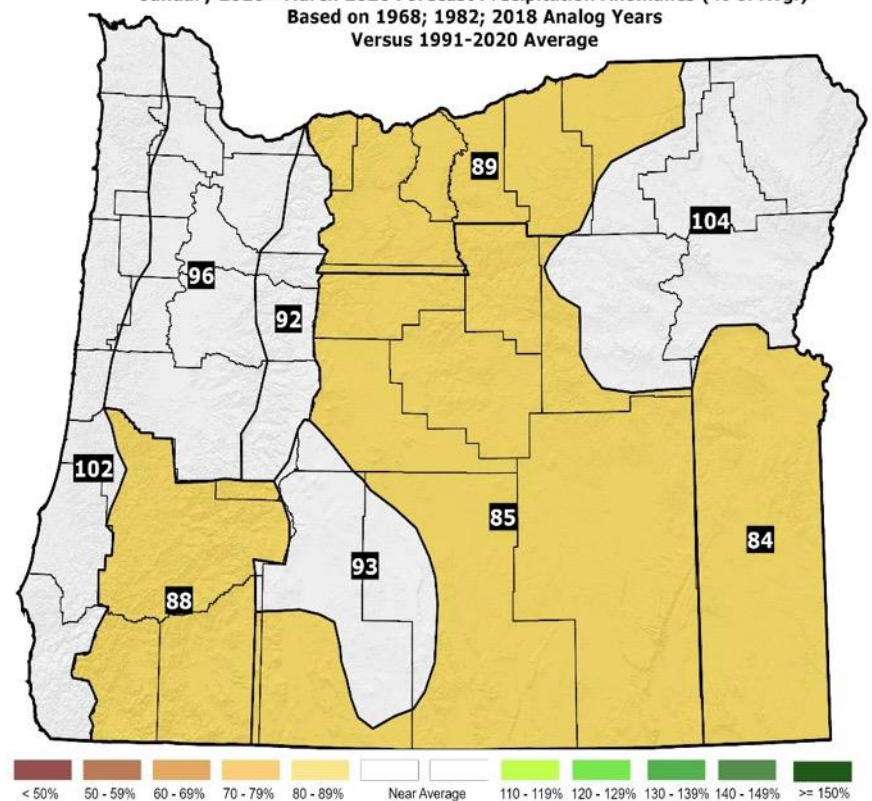
Temperatures

January 2026 - March 2026 Forecast Temperature Anomalies (°F)
Based on 1968, 1982, 2018 Analog Years
Versus 1991-2020 Average



Precipitation

January 2026 - March 2026 Forecast Precipitation Anomalies (% of Avg.)
Based on 1968; 1982; 2018 Analog Years
Versus 1991-2020 Average



- A warmer-than-average 1968 countered the cooler 1982 and 2018 analogs, which lowers confidence in the above temperature forecast.
- Precipitation was close to average among the analogs. 1982 had above-average mountain snowpacks, but the other analogs had deficits.

Forecast Highlights

- This forecast is based on weather that occurred during the 1968, 1982, & 2018 analog years. No changes to these years from last month.
- Although overall temperatures skew slightly mild, at least brief Arctic intrusion are indicated, as far south as northern Oregon, in all 3 analog sets...but at different times. At least one period of valley snow is likely.
- Large month-to-month variation in temperatures among the analogs lowers forecast confidence. Their blend calls for “slightly warmer than average” conditions. Look for monthly extremes in either direction.
- Precipitation forecast is difficult. Analogs show wide-ranging solutions in both directions. Their “blend” indicates “near-average” rain and mountain snow, but that could be misleading.

Disclaimer: This forecast is not associated with NOAA's Climate Prediction Center (CPC). See “Forecasting Methods...” at: <https://www.oregon.gov/oda/natural-resources/pages/weather.aspx>.

Forecast Resources

- ODA Seasonal Climate Forecast Home:

<https://www.oregon.gov/oda/natural-resources/pages/weather.aspx>

- CPC Official US Three-Month Forecasts (Graphics):

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/seasonal.php?lead=01

- CPC US 30-Day & 90-Day Forecasts (Discussions):

https://www.cpc.ncep.noaa.gov/products/predictions/long_range/fxus07.html

- CPC Weekly & Monthly ENSO Discussions:

https://www.cpc.ncep.noaa.gov/products/analysis_monitoring/enso_advisory

- Australian Government Climate Model Summary:

<http://www.bom.gov.au/climate/model-summary/#region=NINO34&tabs=Overview>

- Australian Government ENSO Wrap-Up:

<http://www.bom.gov.au/climate/enso>

- IRI ENSO Quick Look:

<https://iri.columbia.edu/our-expertise/climate/forecasts/enso/current/>

Water Supply / Fire-Potential Outlook

- CPC U.S. Seasonal Drought Outlook:

https://www.cpc.ncep.noaa.gov/products/expert_assessment/season_drought.png

- NRCS Snow Water Equivalent Oregon Map:

https://www.wcc.nrcs.usda.gov/ftpref/data/water/wcs/gis/maps/or_swepctnormal_update.pdf

- NRCS/USDA Snow Water Equivalent Products:

<https://www.nrcs.usda.gov/wps/portal/wcc/home/snowClimateMonitoring/snowpack/>

- NDMC U.S. Drought Monitor:

<https://droughtmonitor.unl.edu/>

- NIDIS North American Drought Portal:

<https://www.drought.gov/nadm/content/percent-average-precipitation>

- WRCC WestWideDroughtTracker:

<https://www.wrcc.dri.edu/wwdt/>

- NWCC Northwest Interagency Coordination Center (video)

<https://gacc.nifc.gov/nwcc/predict/outlook.aspx>

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Contact: Pete Parsons, ODF Lead Meteorologist
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A Meyer