Alaska climate outlook briefing January 2026

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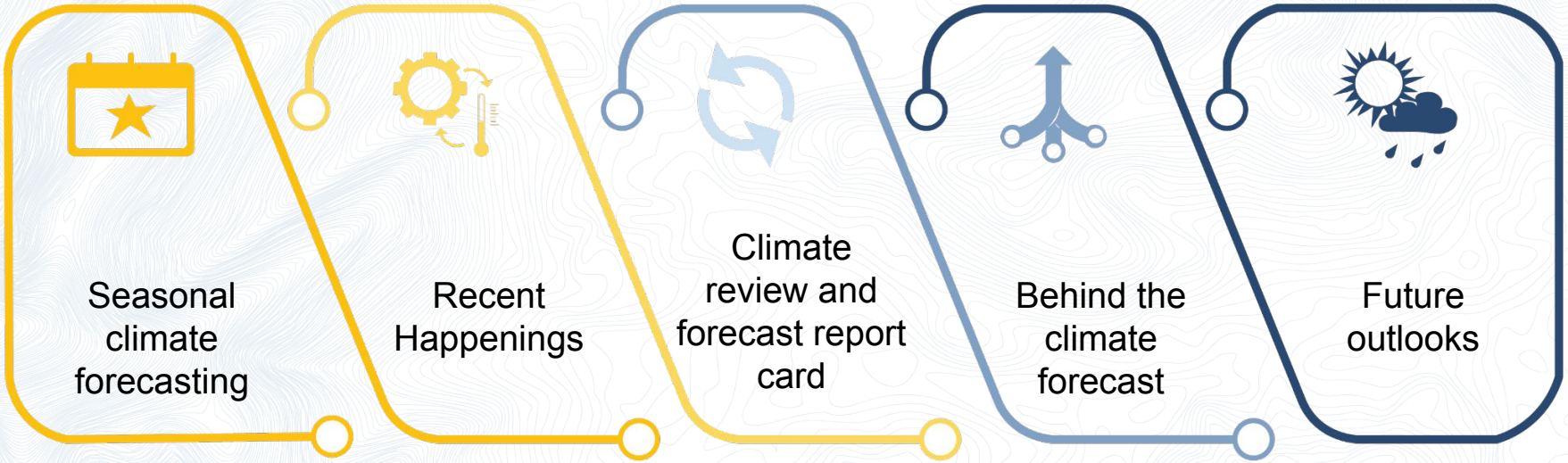
ACCAP Climate Specialist
January 16, 2026

ACCAP


Seasonal climate forecasting
Recent Happenings
Climate review and forecast report card
Behind the climate forecast
Future outlooks

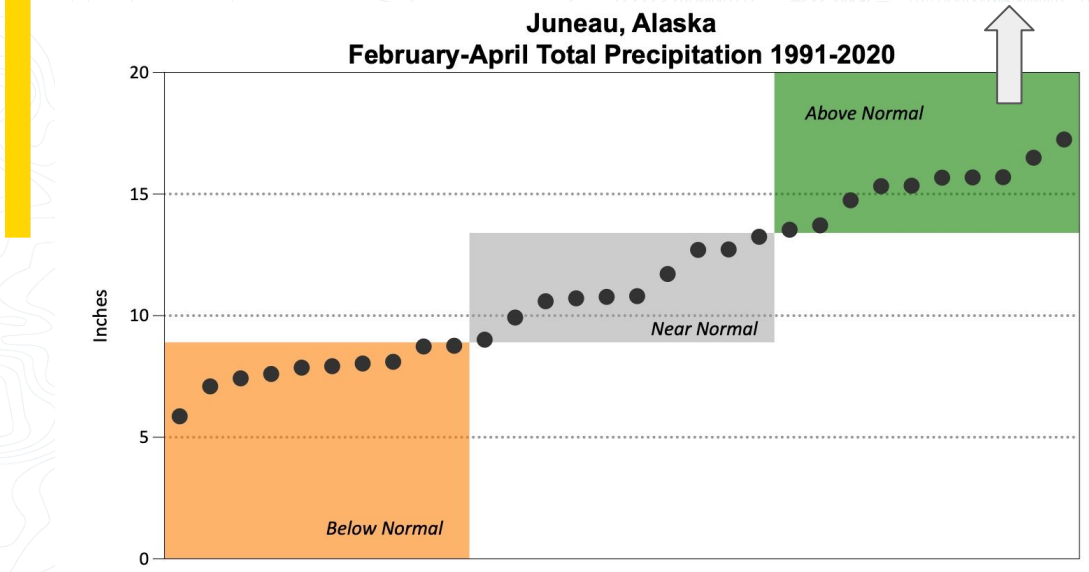
Seasonal climate forecasting

NOAA Center for Weather and Climate Prediction

Climate Prediction Center (CPC) ➤ primary NOAA/NWS forecast responsibility for two weeks to a year in the future

The basics

- Relation to long-term normal (1991-2020)
- 3 categories
- Probabilistic
- Temperature
  - Centered on average
- Precipitation
  - Centered on median ➤ can significantly differ from “normal”
- Normals temperature and precip ranges for selected Alaska places at ACCAP climate graphics

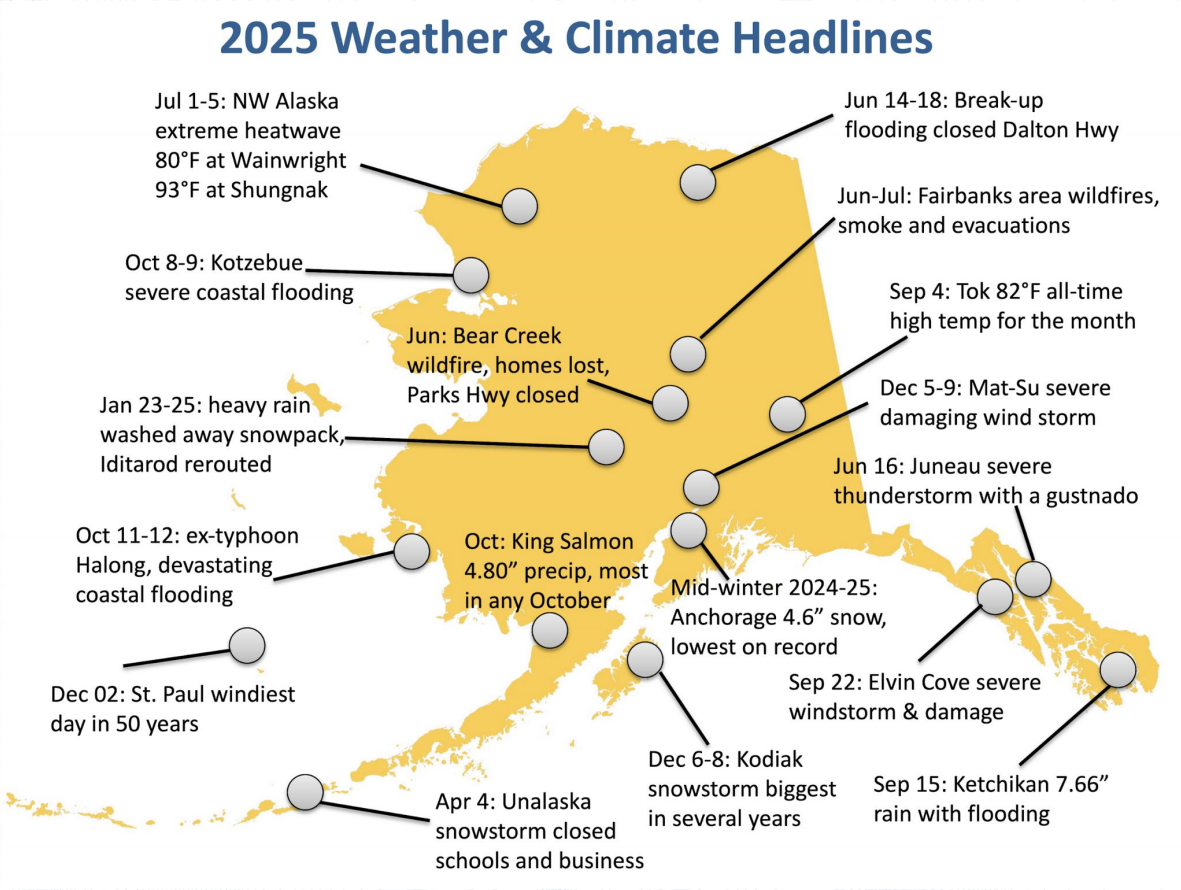


Recent Happenings

- **Anchorage**: most snow (27”) first 2 weeks of Jan and highest Jan 2-day snowfall (19”)
- **Fairbanks**: coldest first two weeks of Jan since 2009, 32 days staying below 0F (Dec 14-Jan 14), longest stretch in 108 years, record was 40 days in 1917-1918.
- **Juneau**: Jan 8-14 avalanche threats and flooding from rain and snowmelt
- **YK delta**: Jan 13-14 widespread wind chills 50 to 60 below, Bethel low temp -33F lowest since 2012
- **Easter Aleutians**: Jan 9-15 coldest sustained weather since winter 2019-20

Anchorage Snow
Jan 06, 2026
Photo credit: Mark Lester/ Anchorage Daily News

Recent Happenings



Climate outlook report card

Climate Review

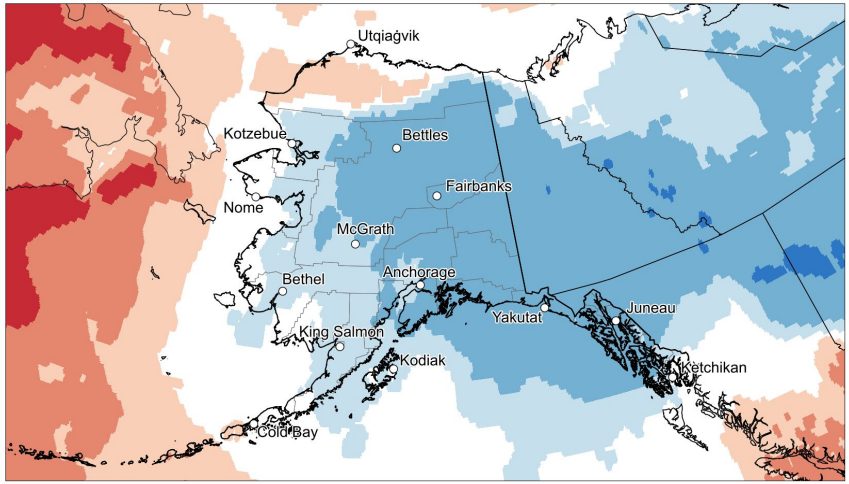
- What happened?
- How did climate outlooks perform?

Bender joins the 40 below club

Photo credit: Scott Cain/Facebook

Model- based regional analysis ➢ **Average temperatures**

Temperature Classification for Dec 2025



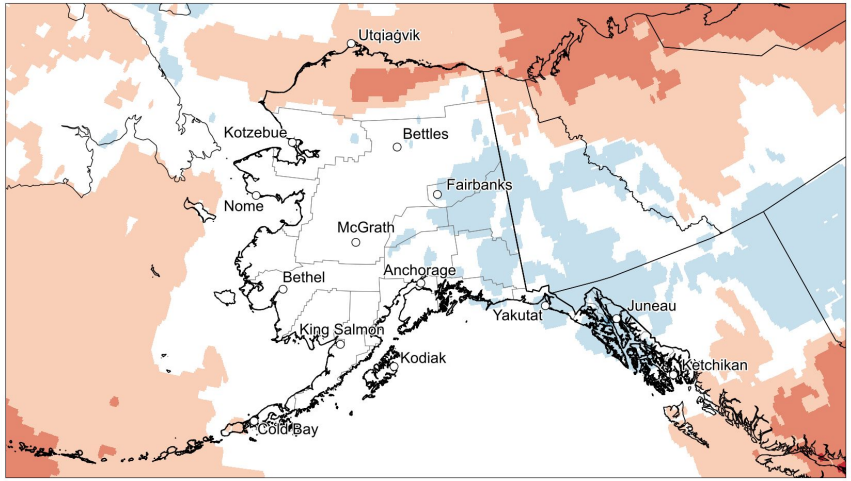
Source: ERA5 Reanalysis

Map by: Brian Brettschneider

Record	Much Below	Below	Near Normal	Above	Much Above	Record

Compared to 1991-2020 Base Period (Records Since 1950)

Temperature Classification for Oct-Dec 2025



Source: ERA5 Reanalysis

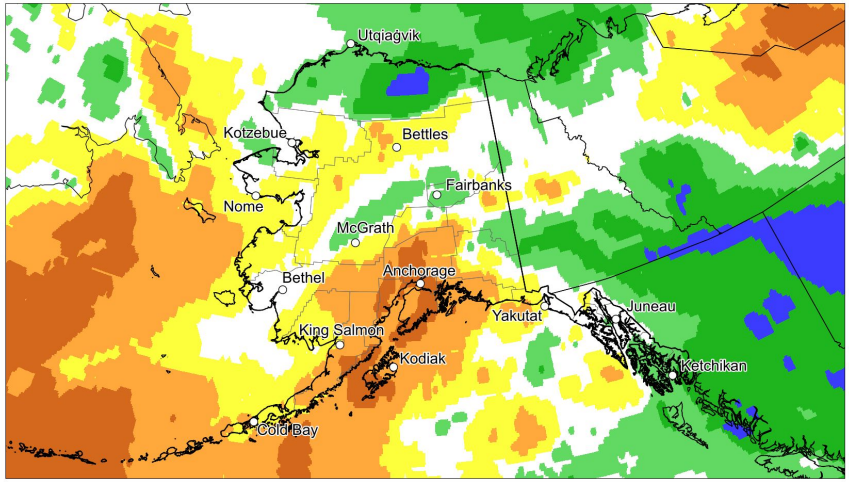
Map by: Brian Brettschneider

Record	Much Below	Below	Near Normal	Above	Much Above	Record

Compared to 1991-2020 Base Period (Records Since 1950)

Model- based regional analysis ➤ **Total precipitation**

Precipitation Classification for Dec 2025



Source: ERA5 Reanalysis

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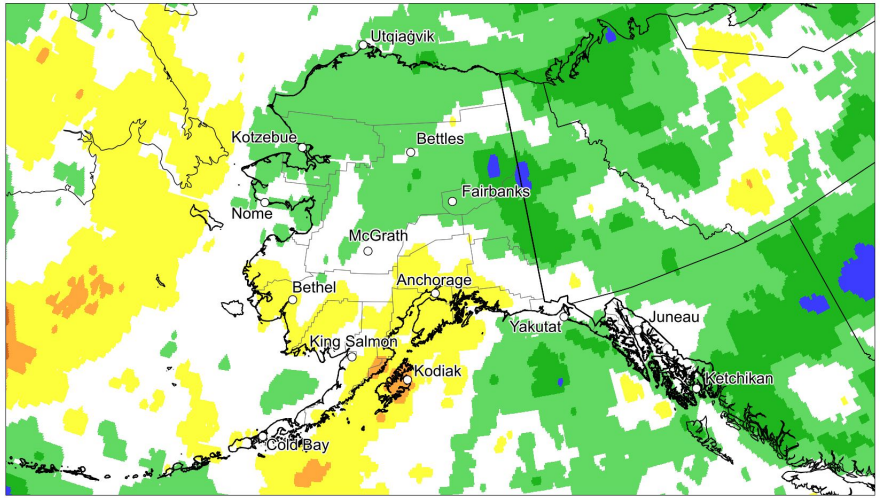
Precipitation Classification for Oct-Dec 2025



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Record	Much Below	Below	Near Normal	Above	Much Above	Record

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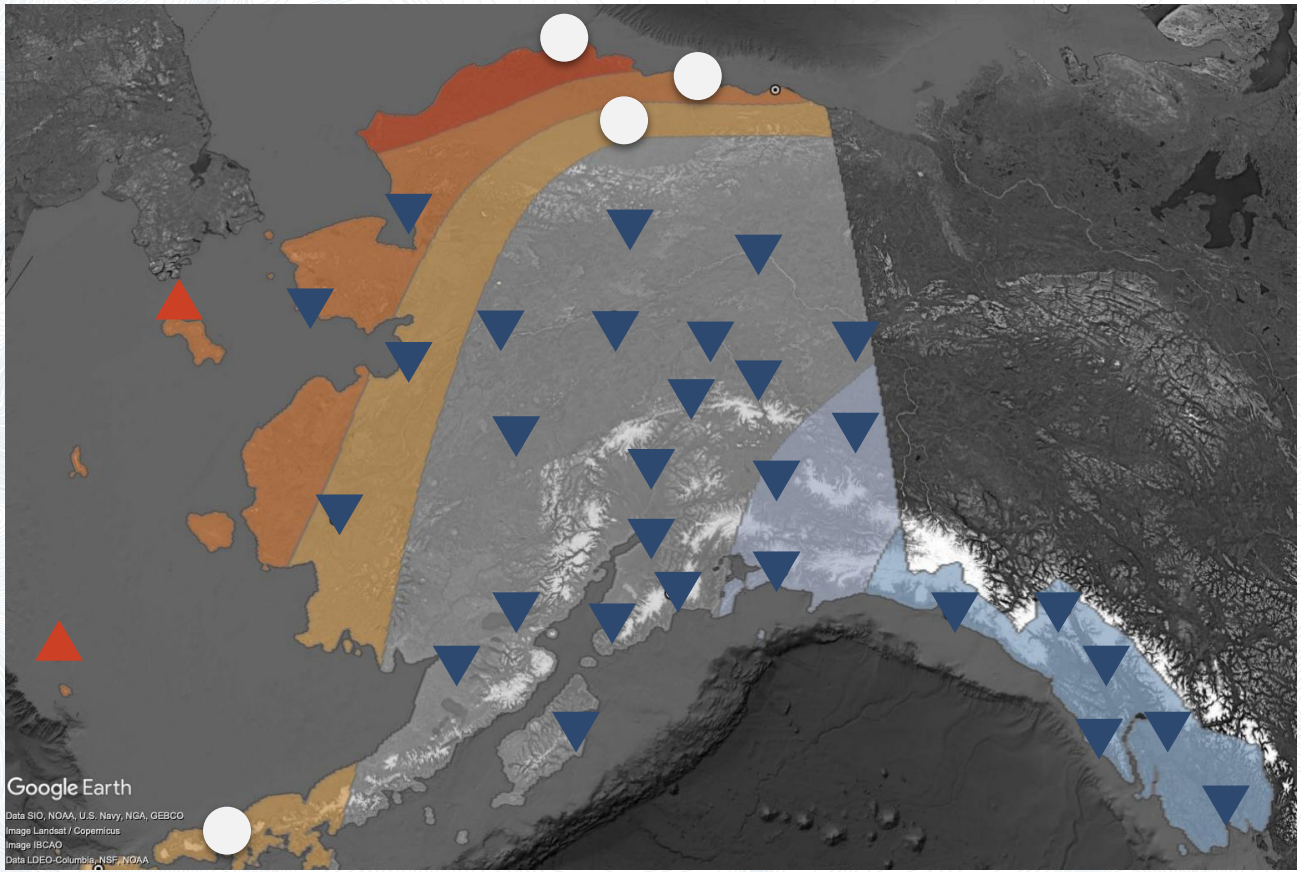
December 2025 temperature ➤ CPC outlook and observed



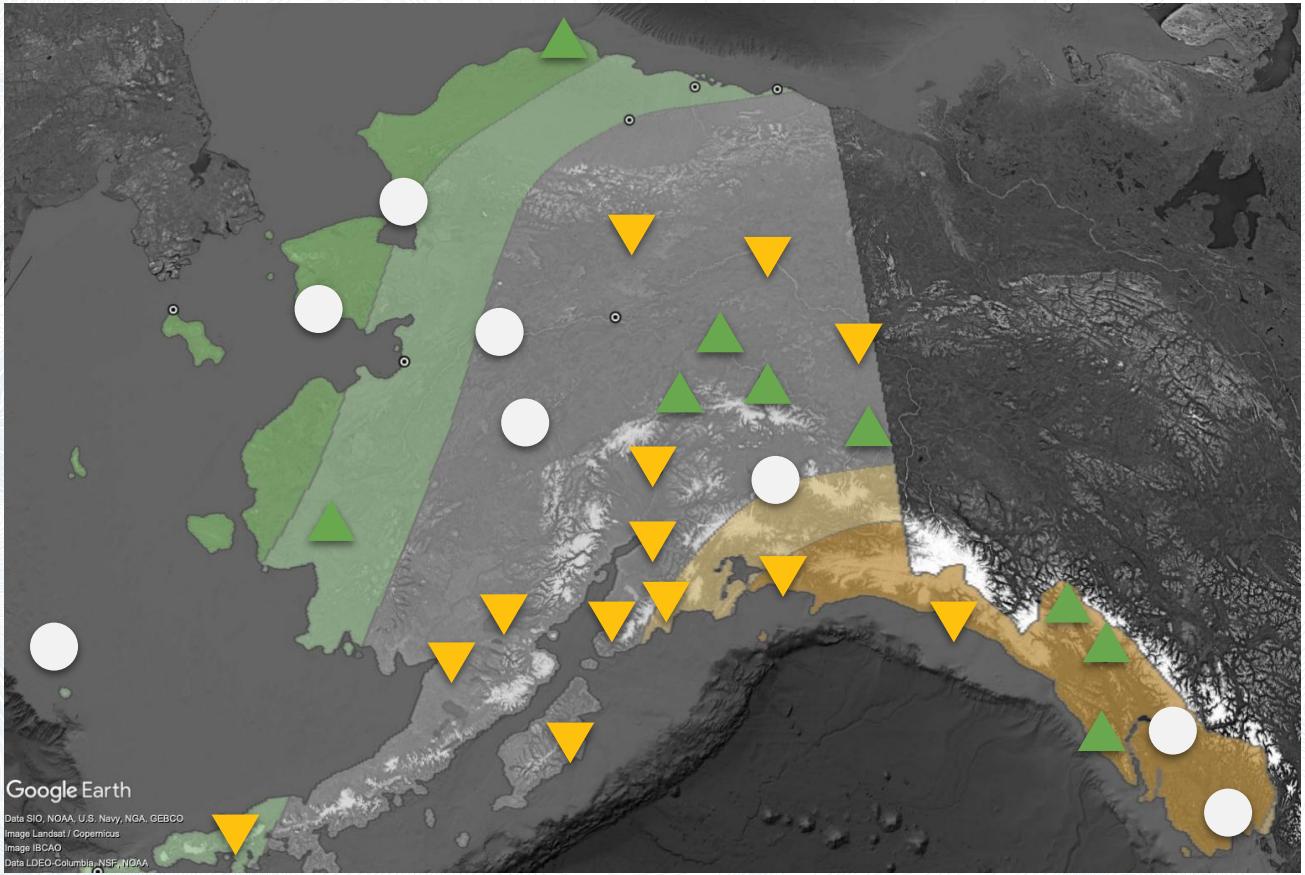
Non-EC skill score: +42

Percent correct: 61%

Mid-month outlook

- Above normal
- Near normal
- Below normal

December 2025 precipitation ➤ CPC outlook and observed



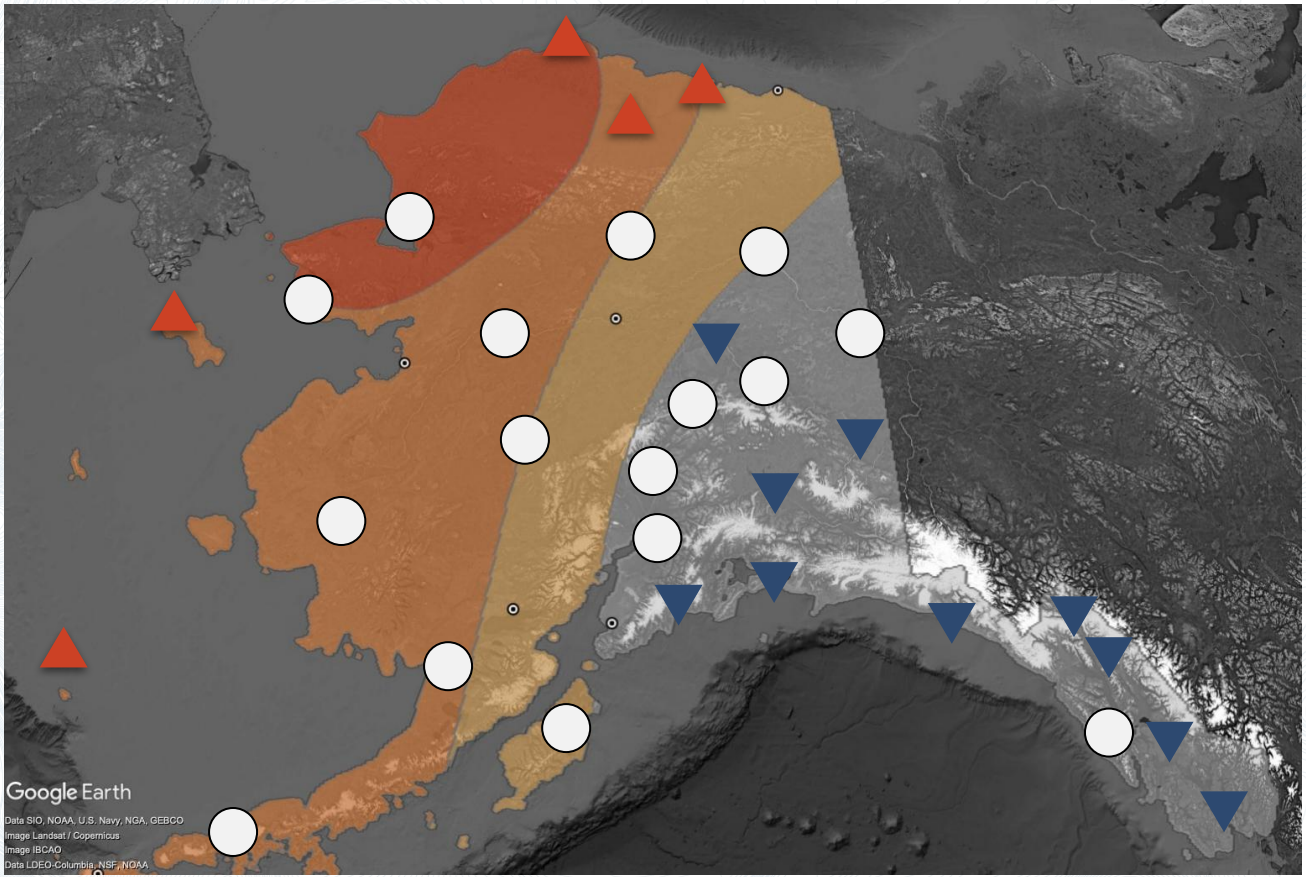
Non-EC skill score: +04

Percent correct: 36%

Mid-month outlook

- Above normal
- Near normal
- Below normal

October-December 2025 temperature ➤ CPC outlook & observed



Non-EC skill score: 0

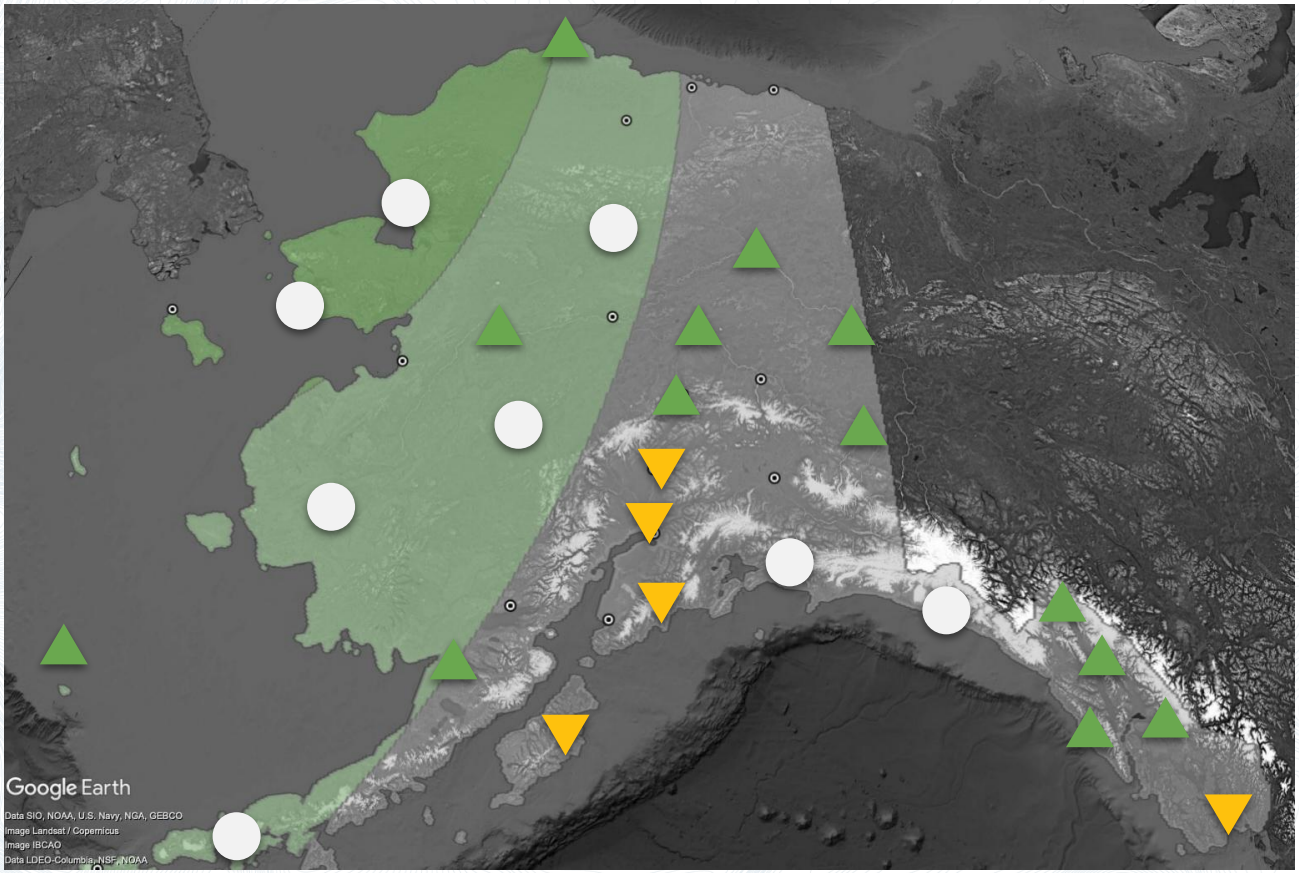
Percent correct: 33%

Above normal

Near normal

Below normal

October-December 2025 precipitation ➤ CPC outlook & observed



Non-EC skill score: +10

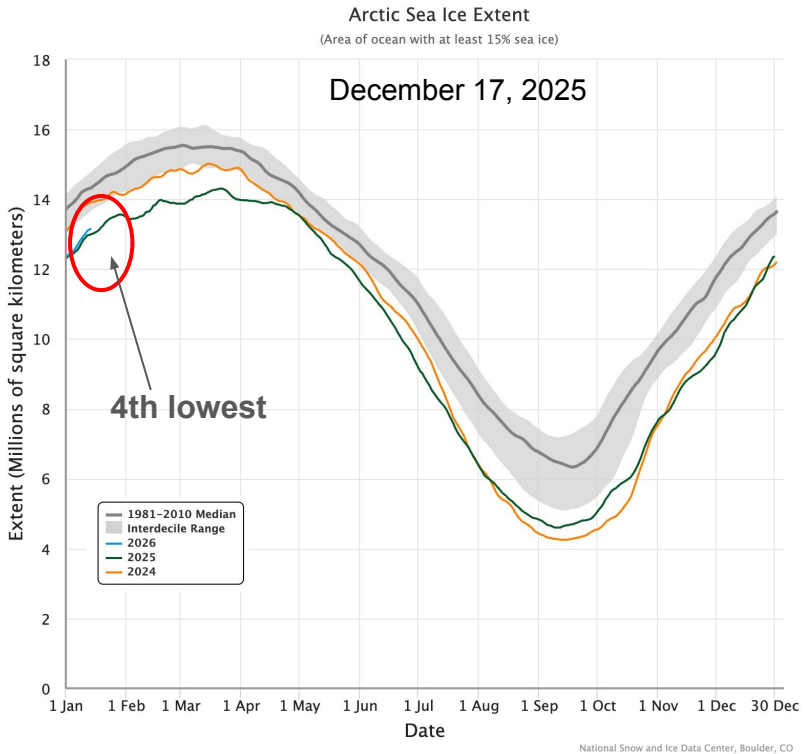
Percent correct: 40%

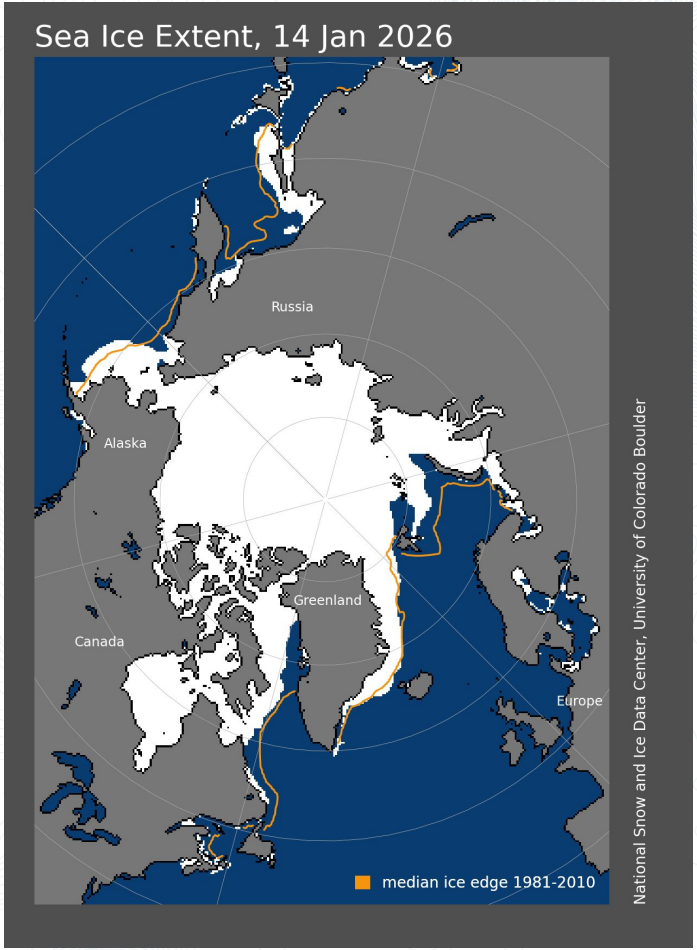
Above normal

Near normal

Below normal

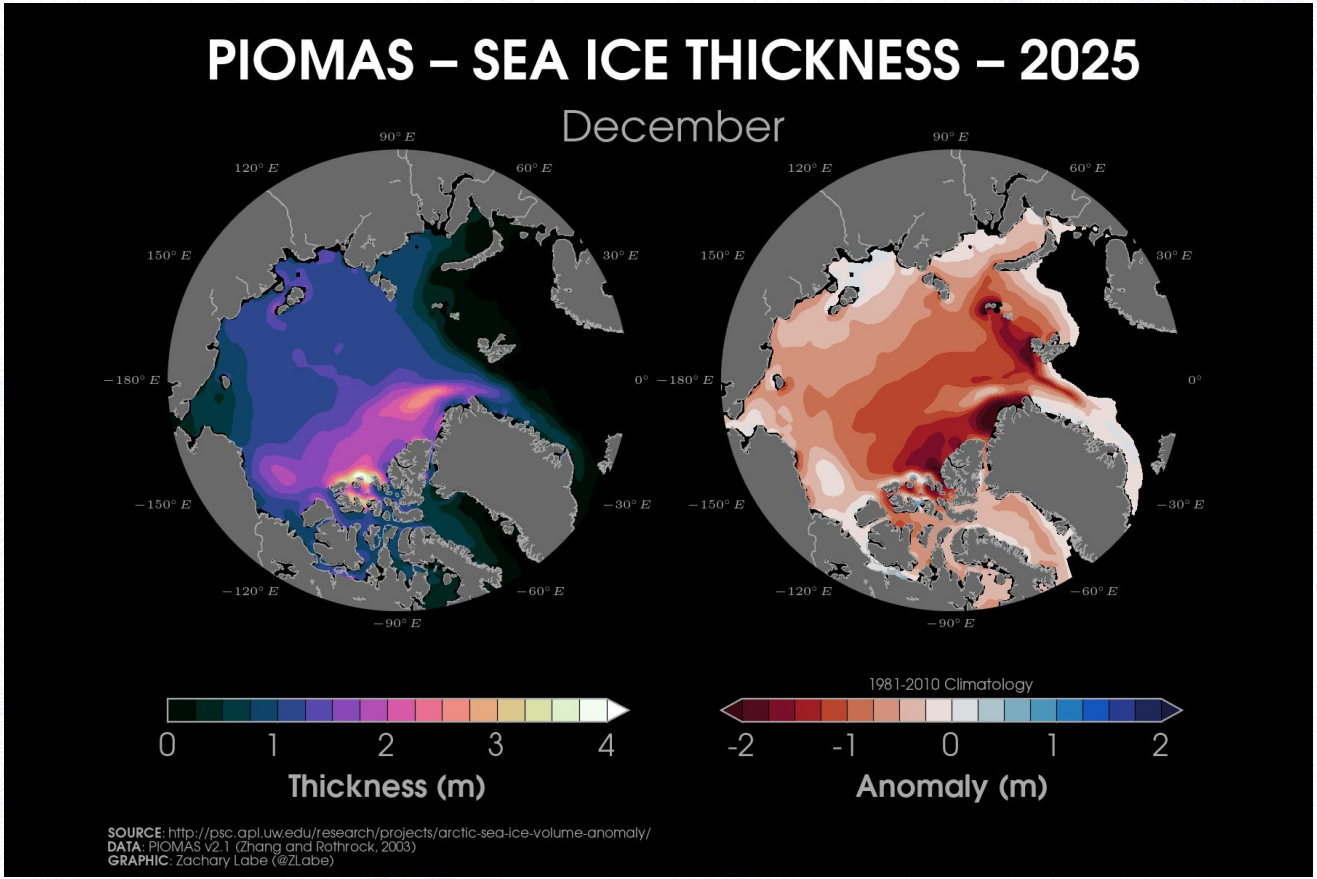
Arctic wide **sea ice**





Arctic sea ice **thickness**

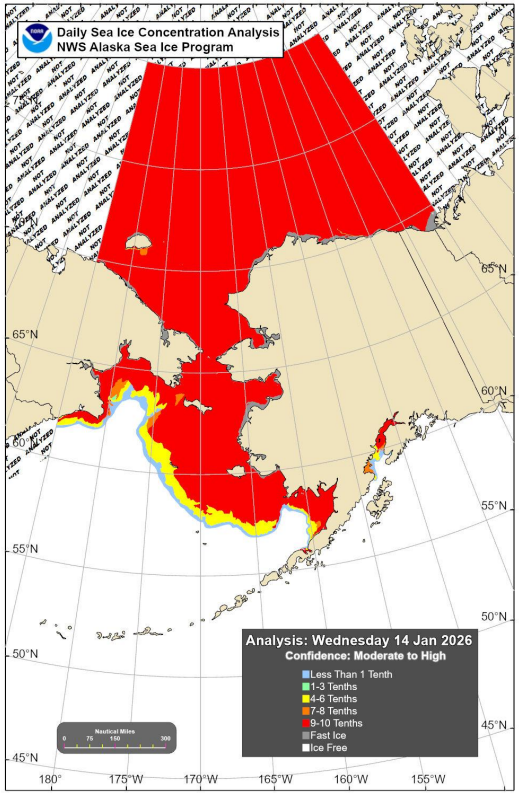
Sources:
Data from U. Wa./PIOMAS data
Graphics by Z. Labe



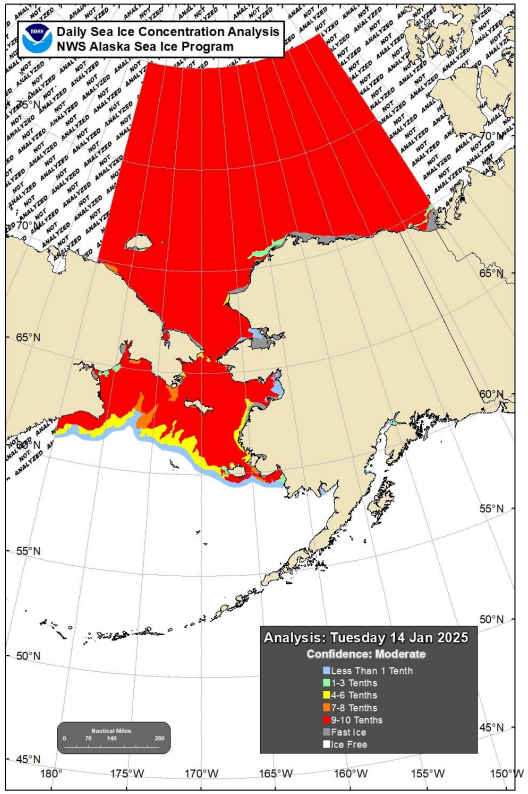
Mid-January sea ice comparison

Source: National Weather Service Alaska Region Sea Ice Program

January 14, 2026

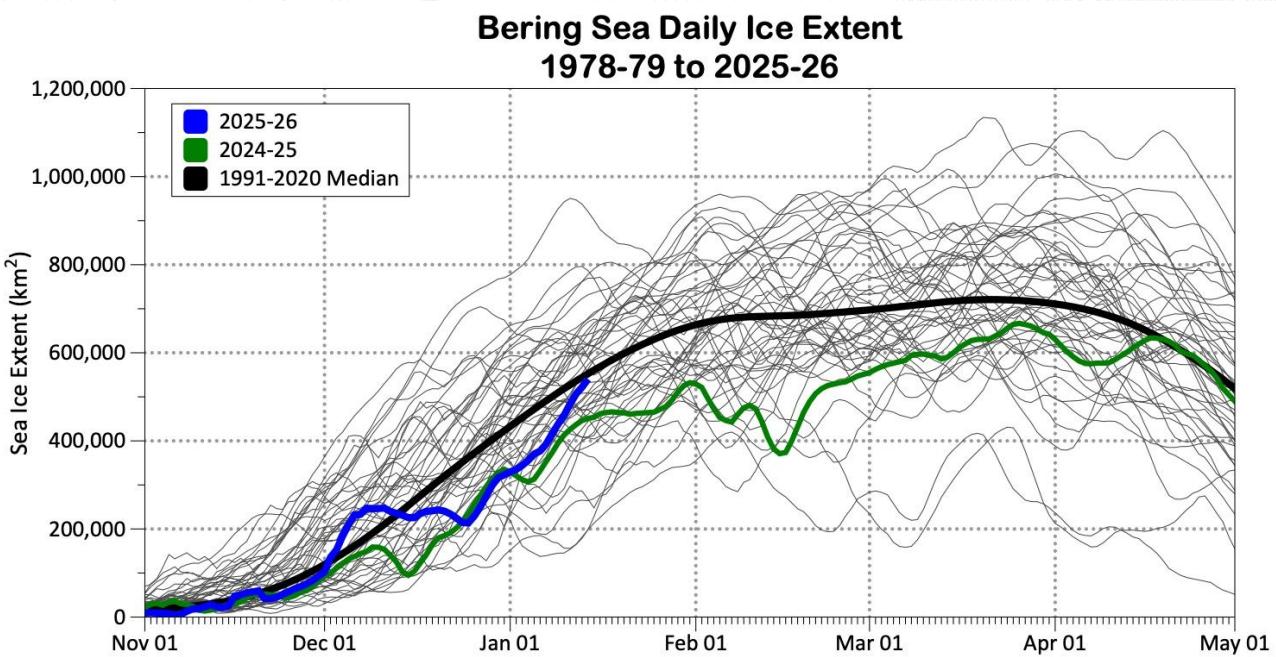


January 14, 2025

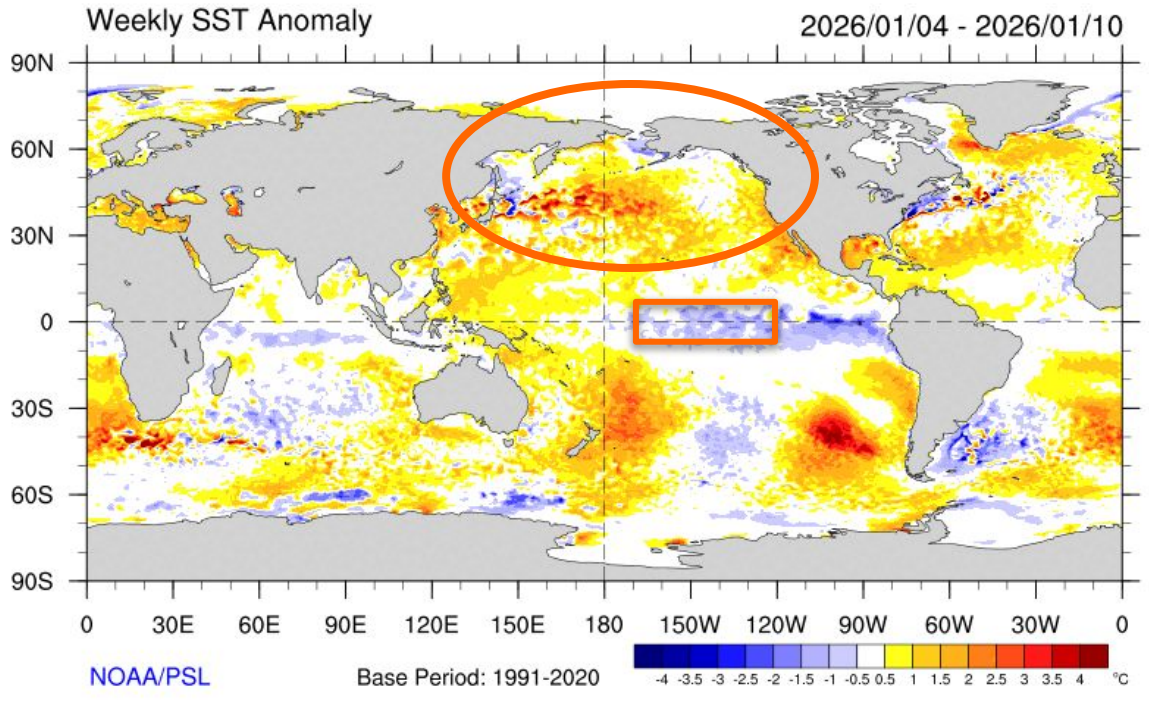


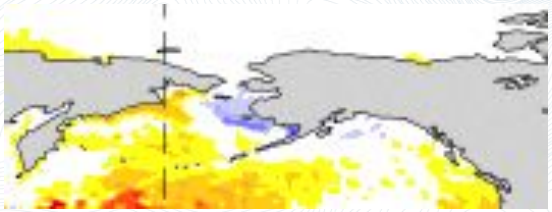
Sea ice extent **through the season**

Sources:
Data NSIDC Sea Ice Index, Version 4.



Global sea surface temperature departure from normal



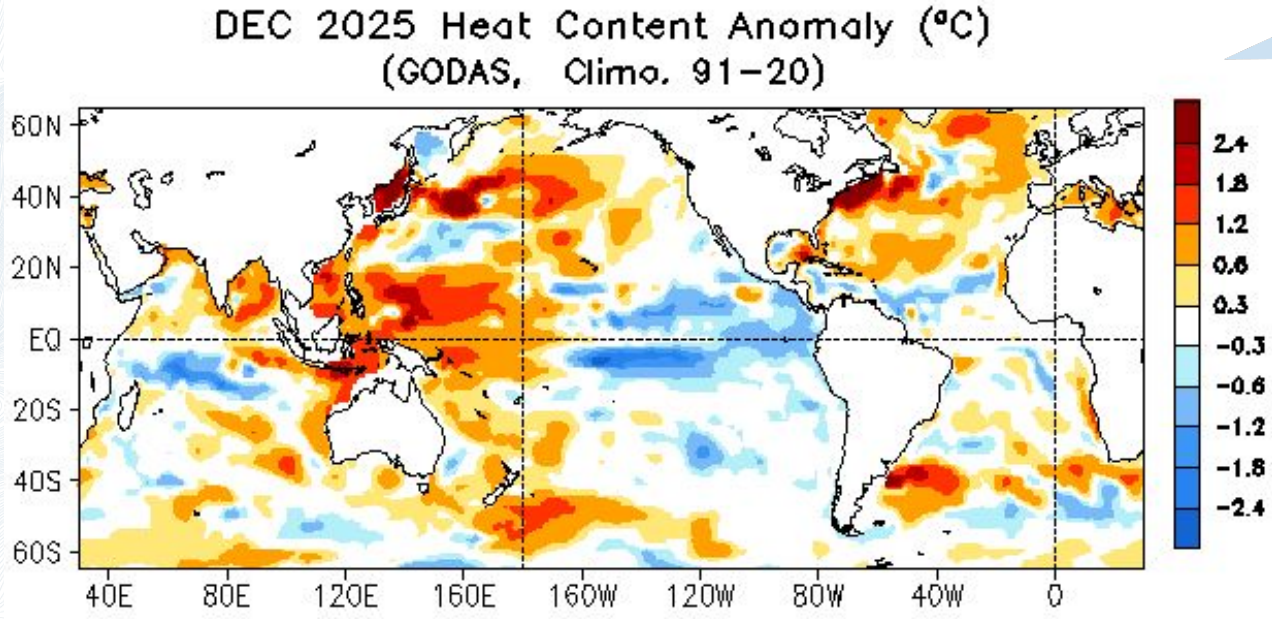


ONI for **Oct-Dec**: -0.5

PDO for **Dec** 2025: -0.5

Sources: ONI from CPC
PDO Index from WCS

Upper **ocean heat** departure from average



Upper 300 meters of the ocean

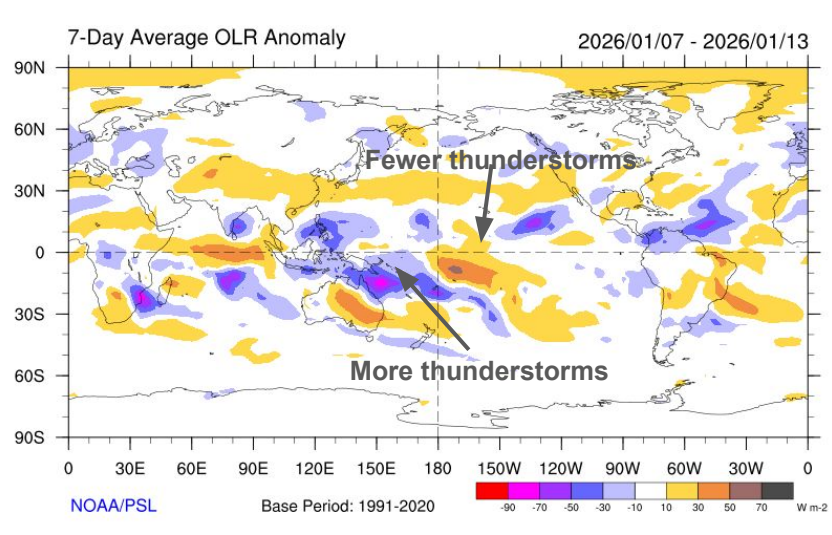
Little change near Alaska

Source: NOAA/CPC

Tropical Pacific atmosphere

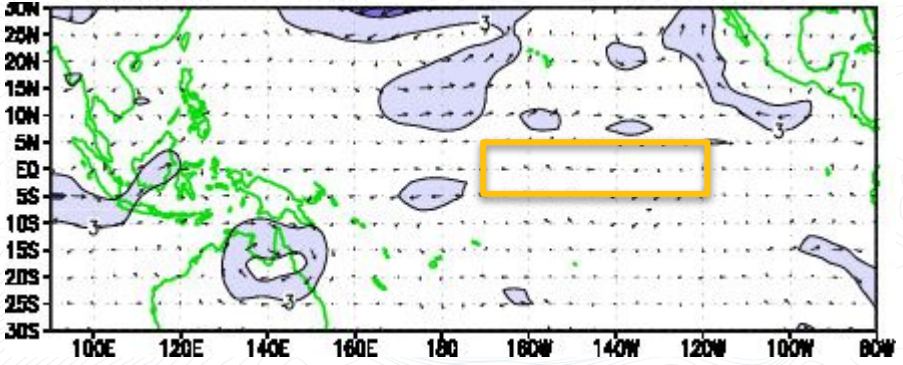
Oct-Dec Oceanic
Niño Index: -0.5

Deep tropical convection
Via “outgoing longwave radiation”

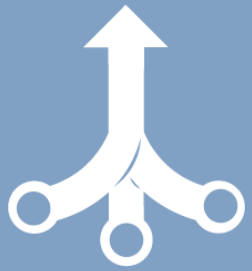


Trade winds close to normal
Niño Region 3.4

Trade winds
850 mb wind difference from average
December 14, 2025-January 12



Behind the climate forecast



El Niño/La Niña (ENSO) ➤ expert evaluation

Statistical models ➤ using the past

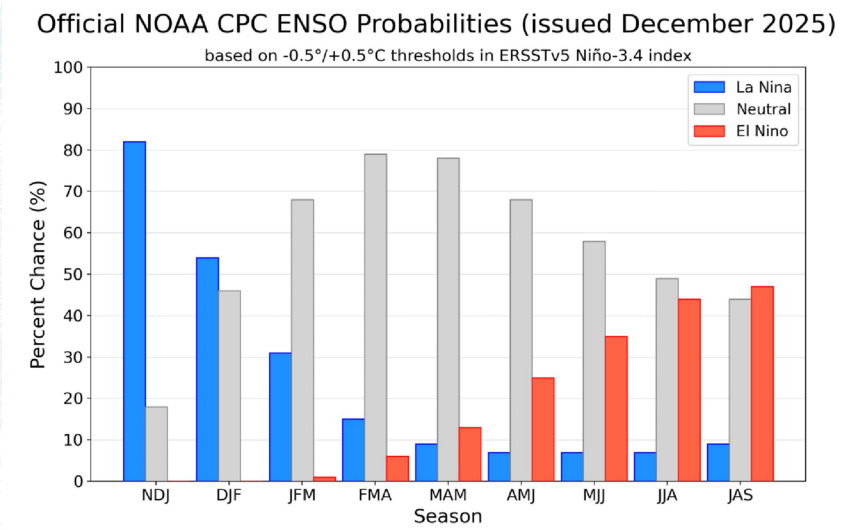
- Temperature and Precipitation

Dynamical models ➤ All physics, all the time

- Sea surface temperatures
- Sea Ice
- Temperature and Precipitation

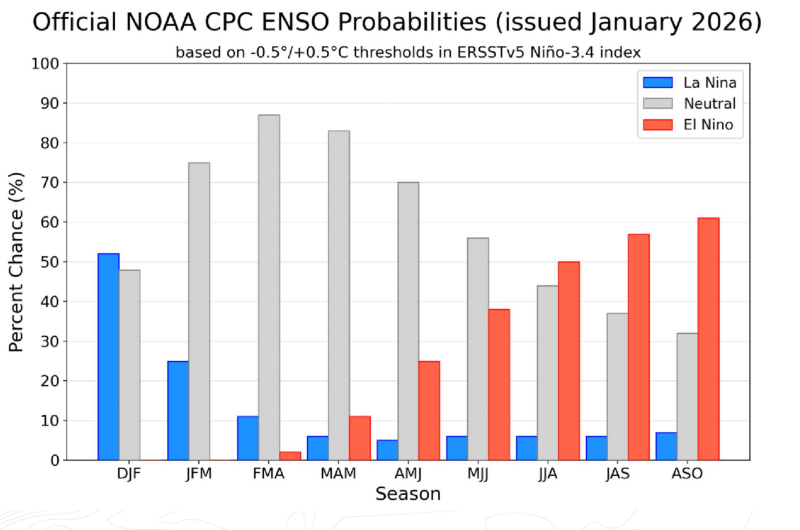
CPC **Niño 3.4 forecasts** ➤ experts

December 2025



January 2026

ENSO Alert System Status:
La Niña Advisory

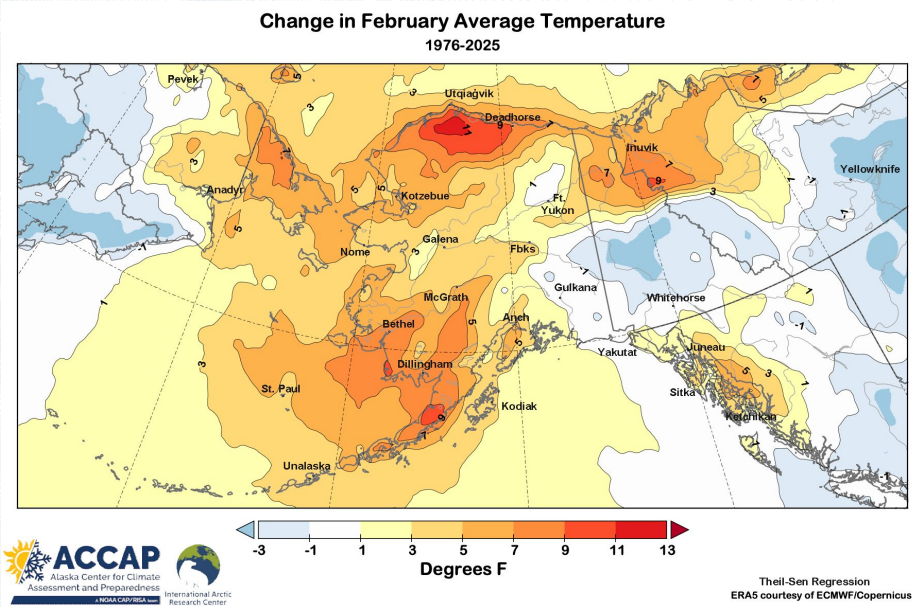


Statistical guidance ➤ using the past to predict the future

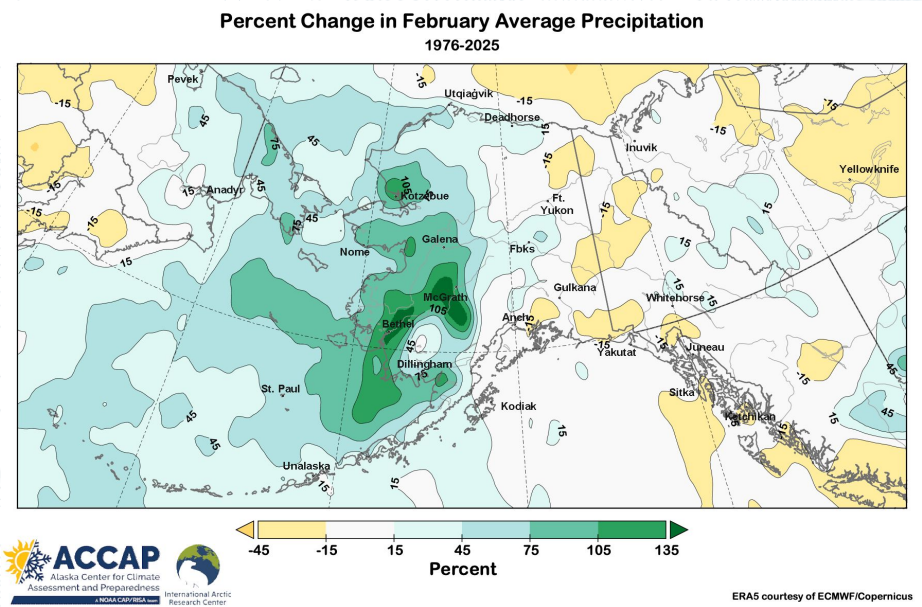
- Long term trends
- Optimum climate normals: Alaska trends the past 15 years
- What happened in past La Niñas

February half century trends

Temperatures



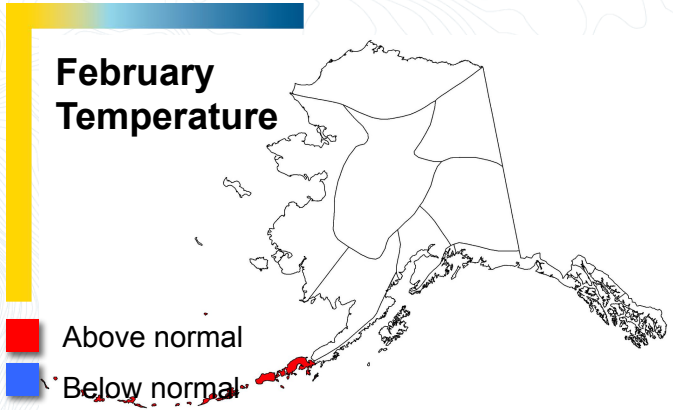
Precipitation

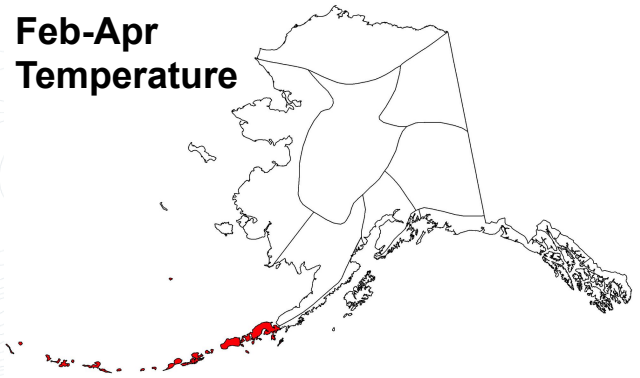


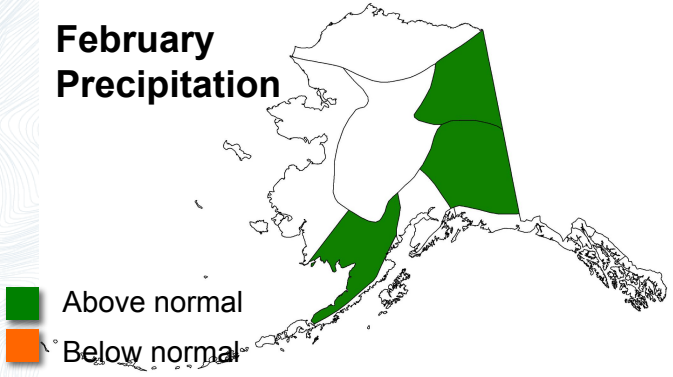
Change in the average over 50 years

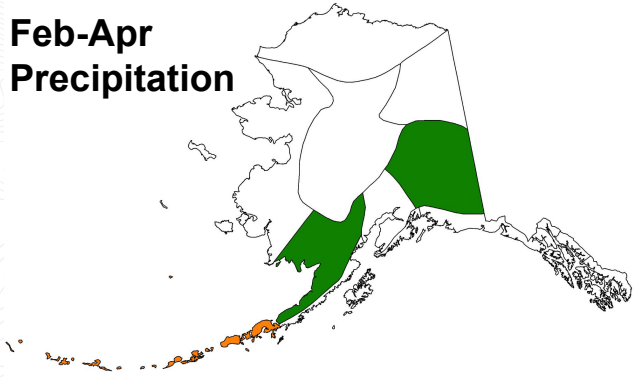
2011 to 2025 **trends**

Past 15 years compared to 1991-2020





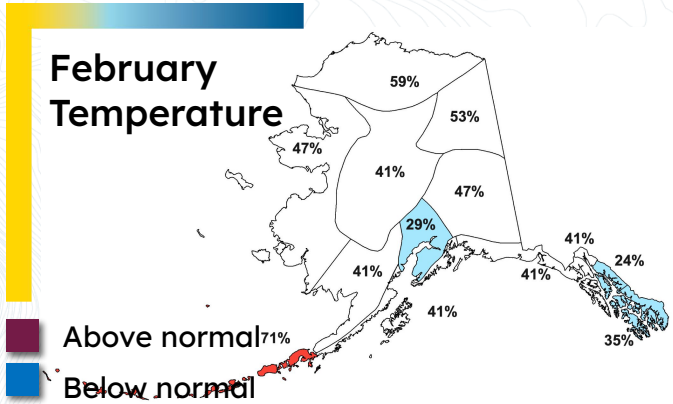


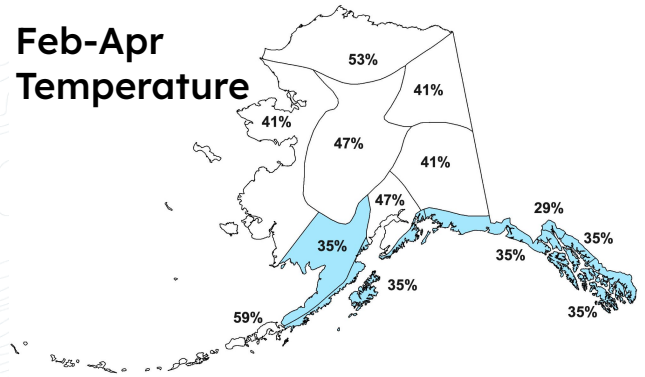


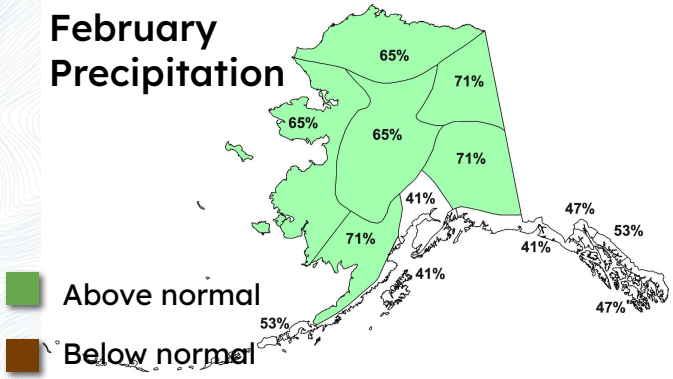
17 La Niña since 1976

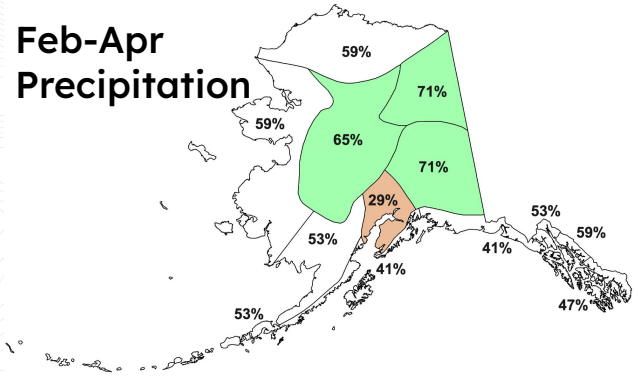
1983, 1984, 1988, 1995, 1998, 1999, 2000, 2005, 2007, 2009, 2010,2011, 2016, 2017, 2020, 2021, 2022 (these are the start years)

Percent years above average









Dynamic model forecasts

Current suite of Dynamic Climate Models

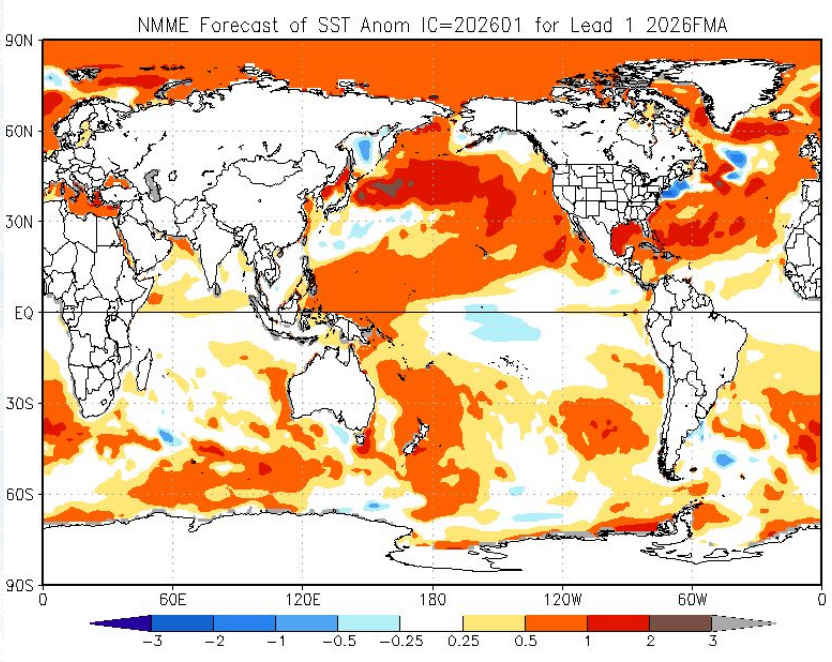
- CPC Experimental Sea Ice Ensemble
- World Climate Service Multi-Model Ensemble
- North American Multi-Model Ensemble (NMME)

What's being forecasted

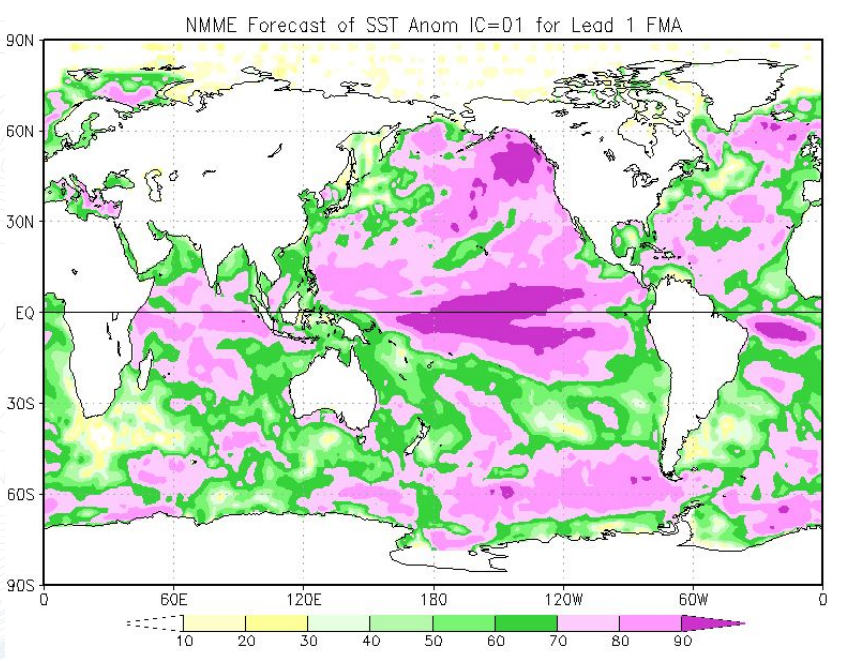
- Sea surface temperatures relative to normal
- Sea ice forecast
- Temperature and precip relative to normal

February-April 2026 **sea surface temperature** ➤ NMME

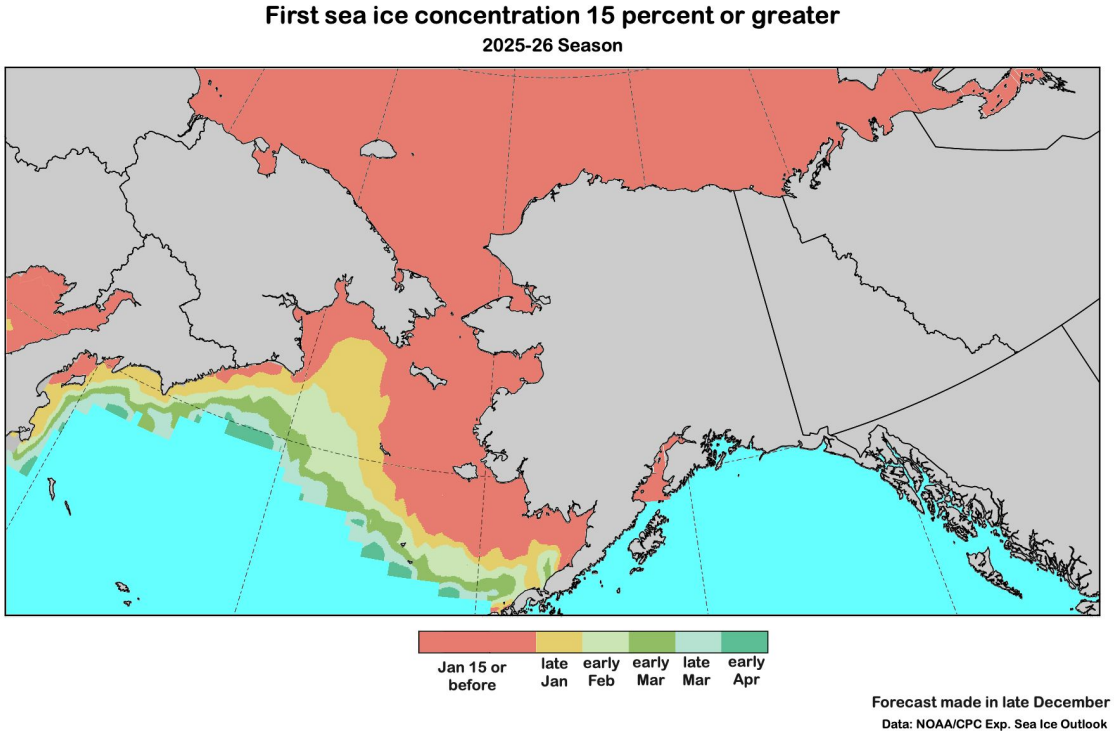
Forecast
departure from normal



Skill
of the forecast



Experimental **sea ice forecast** ➤ CPC



The 20-models average of first date with ice concentration 15 percent or higher

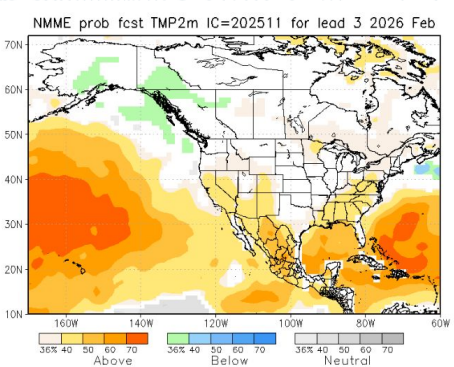
From data though late December

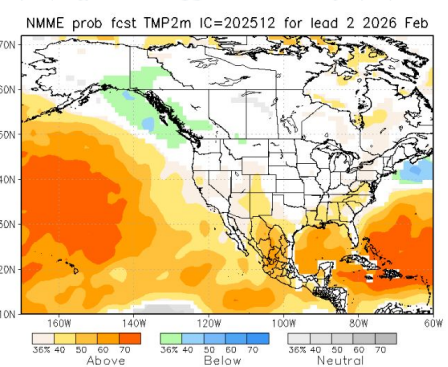
February 2026 calibrated **probability forecast** ➤ NMME

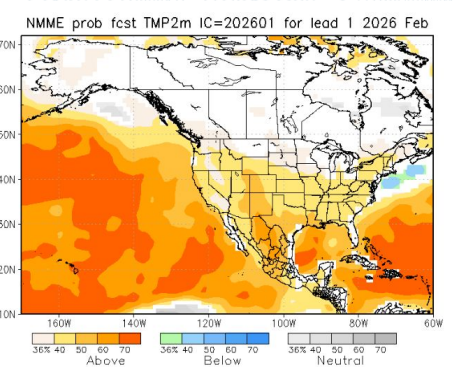
Forecast from →

November | December | January

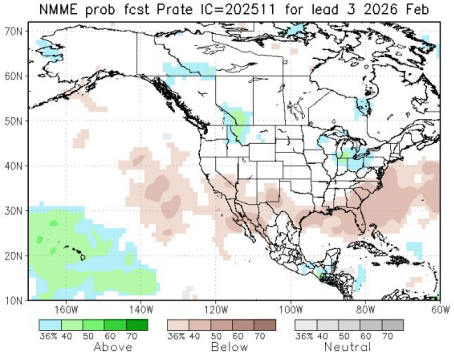
Temperature

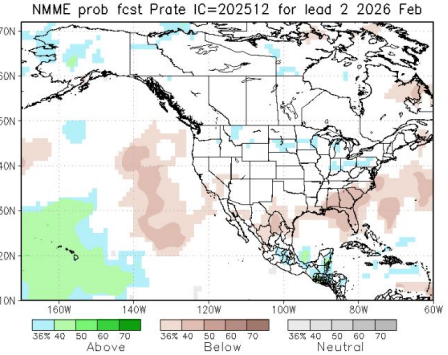


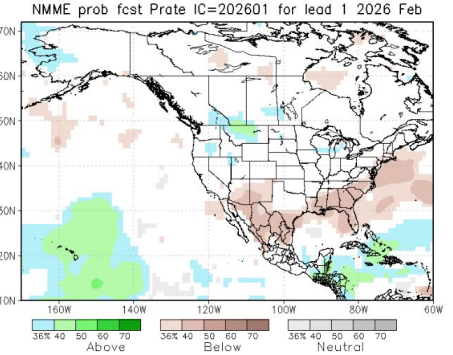




Precipitation

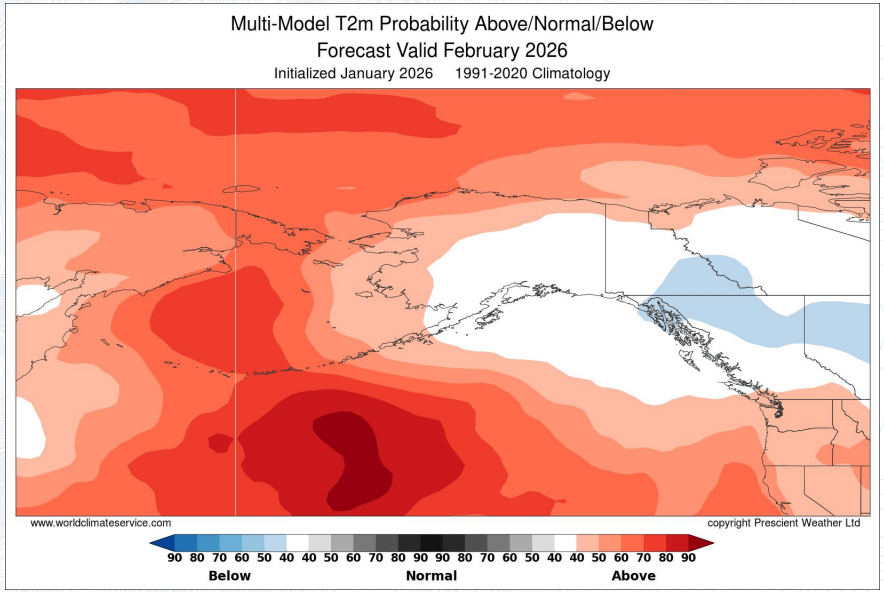




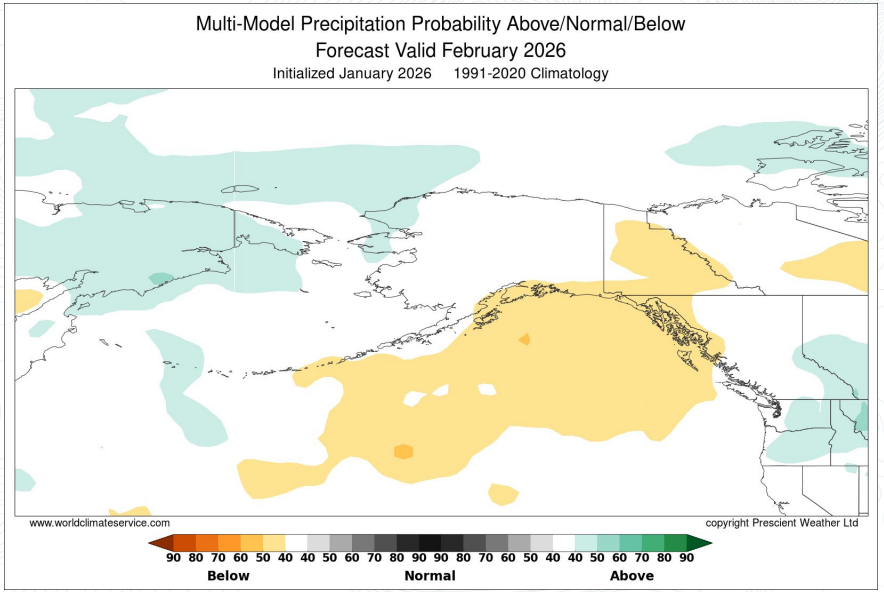


February 2026 outlooks ➤ **World Climate Service**

Temperature



Precipitation



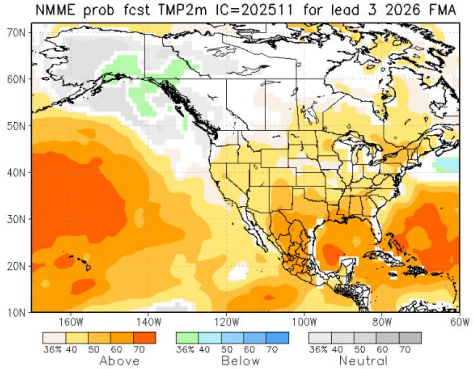
Bias Corrected, Skill Weighted CFS + ECMWF

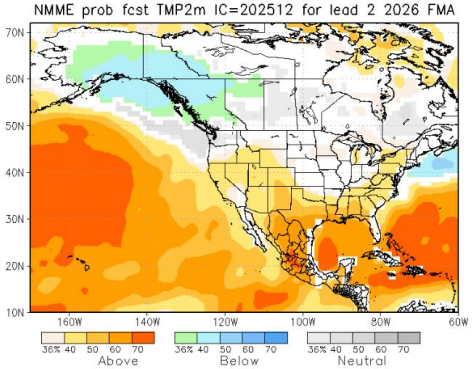
February-April 2026 calibrated **probability forecast** ➤ NMME

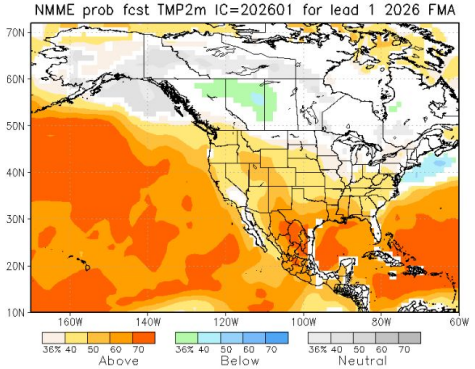
Forecast from →

November | December | January

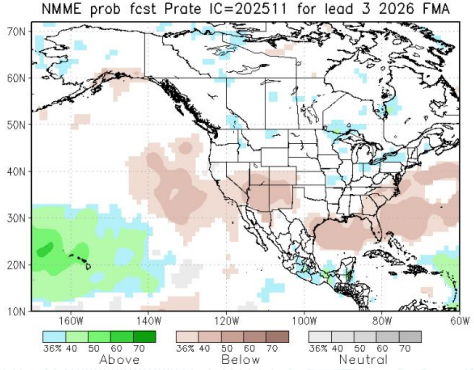
Temperature

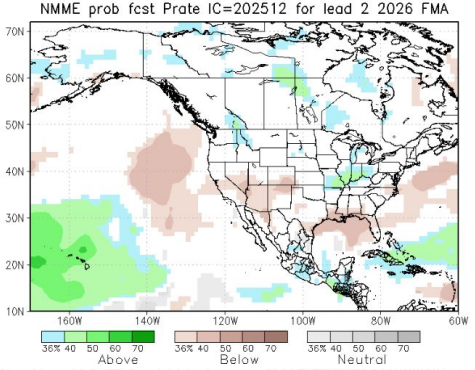


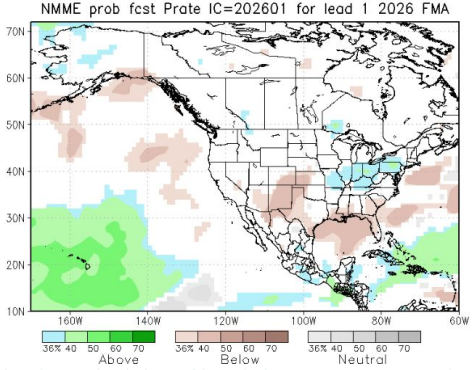




Precipitation

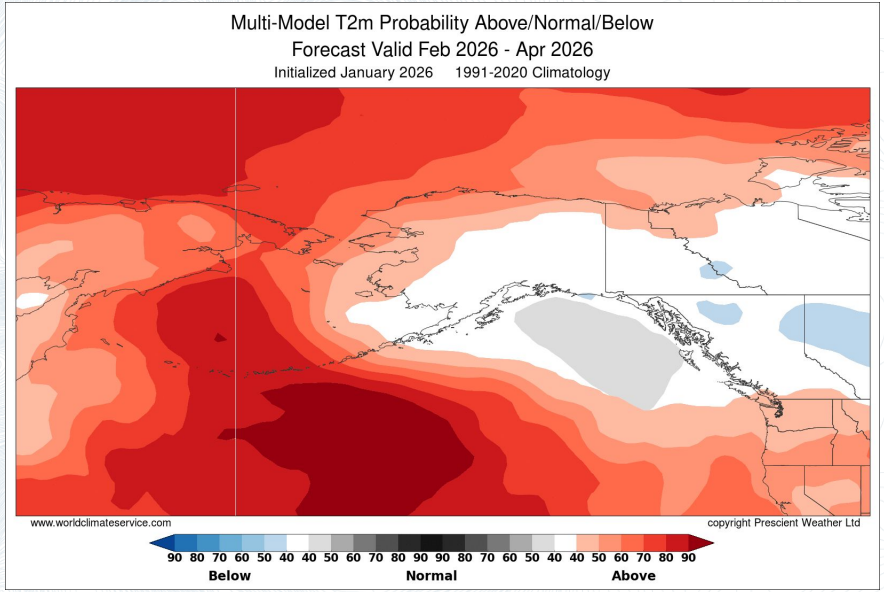




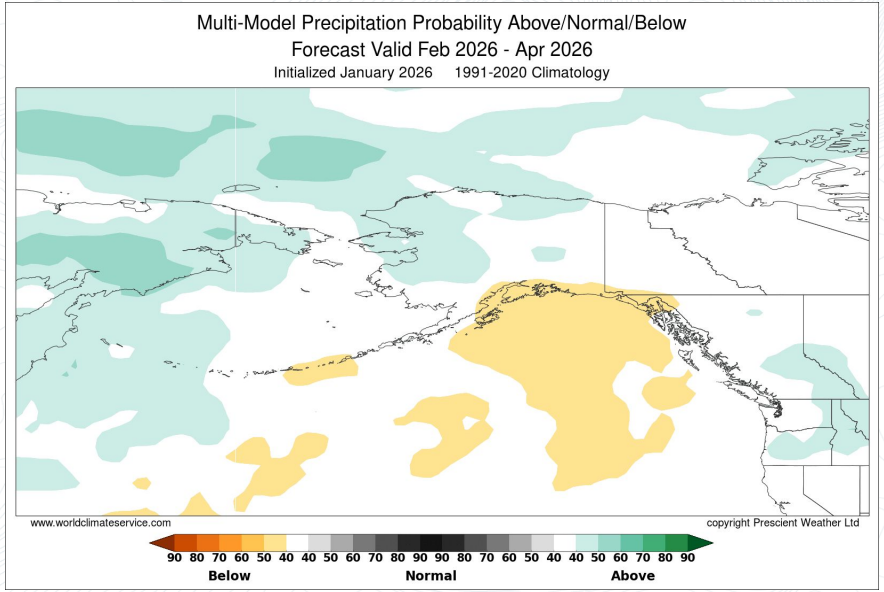


February to April 2026 outlooks ➤ **World Climate Service**

Temperature

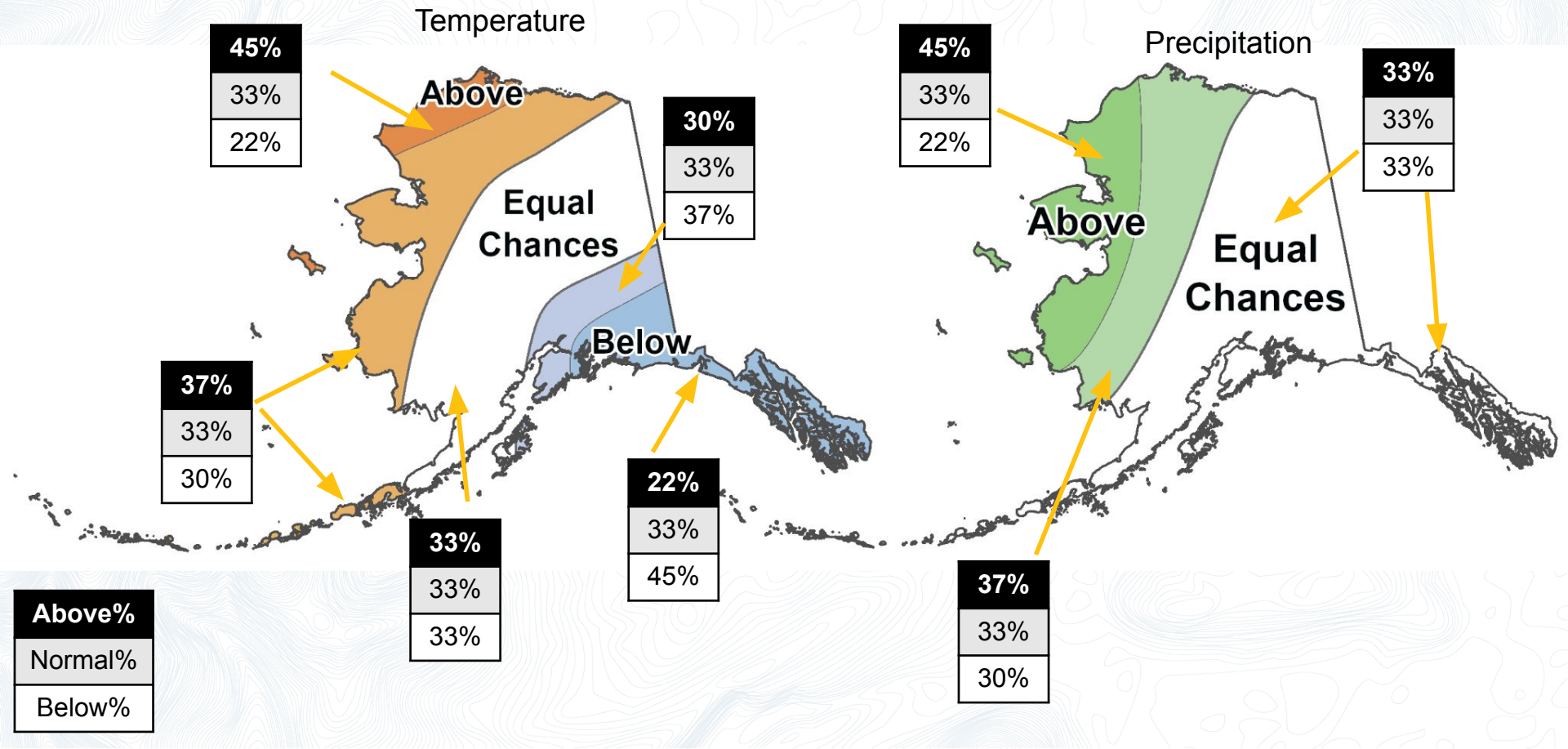


Precipitation



Bias Corrected, Skill Weighted CFS + ECMWF

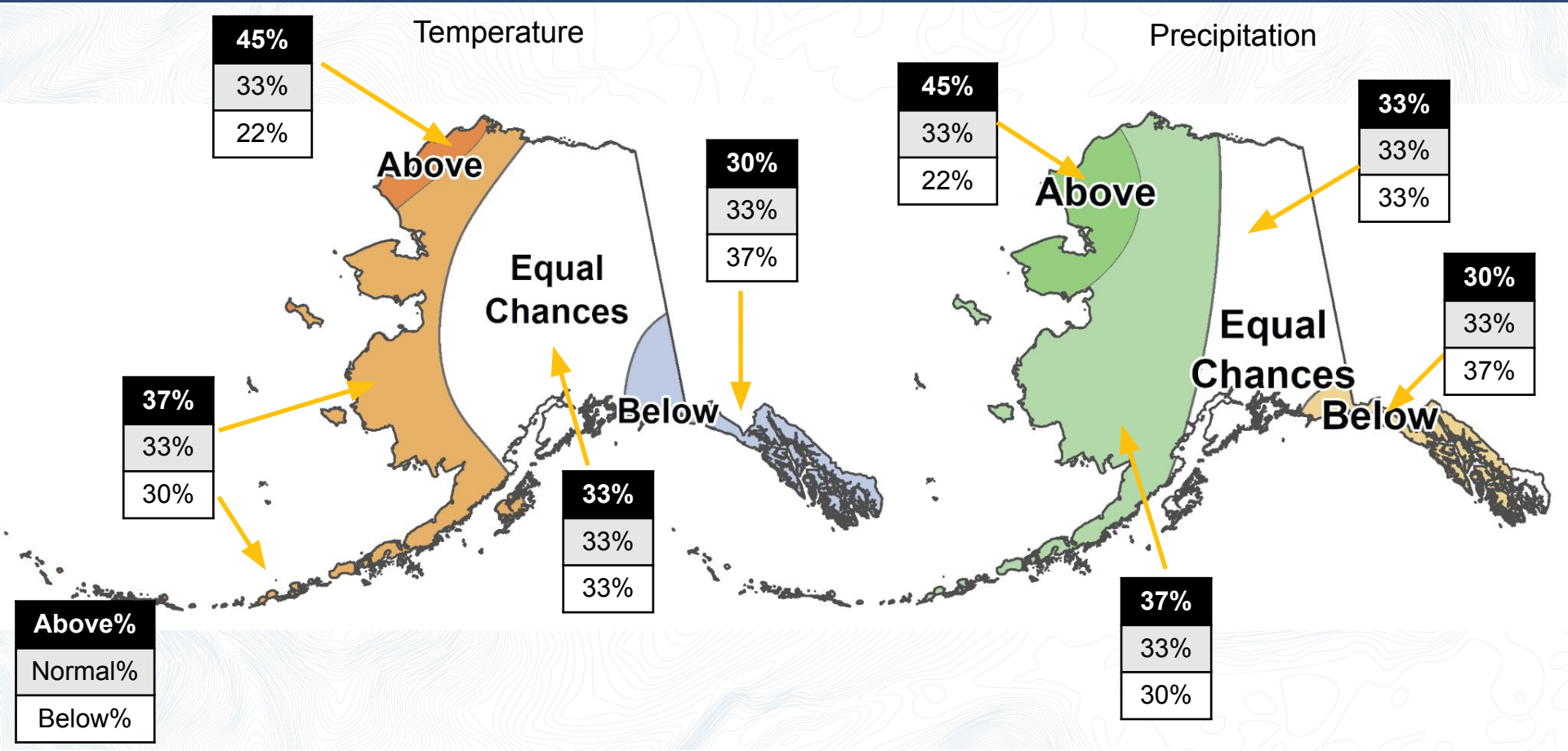
February-April 2026 outlooks from **December**



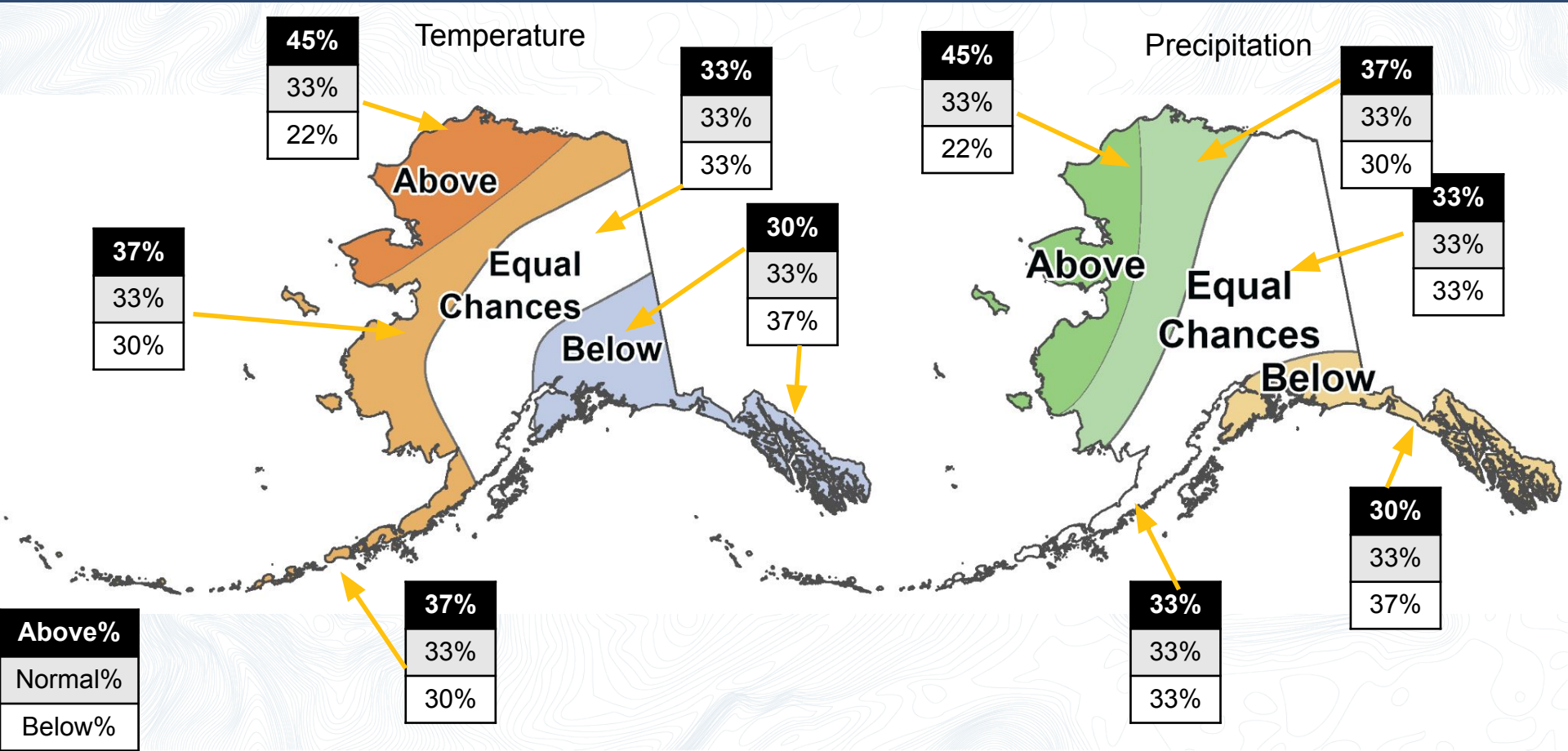
Future outlook

And the answer is...

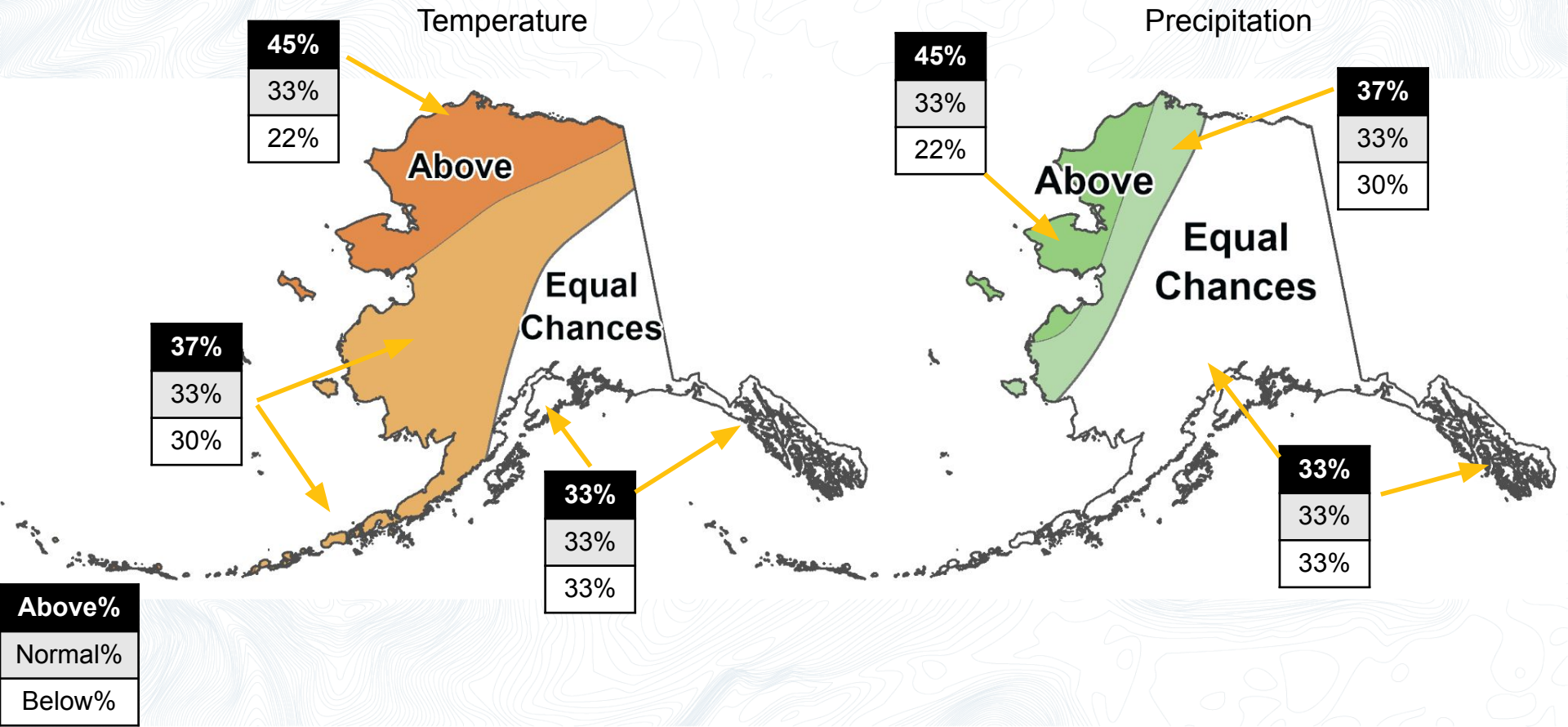
CPC **February 2026 outlooks**



CPC **February-April** 2026 **outlooks**



CPC **Spring 2026 outlook**



Upcoming ACCAP webinars

Upcoming ACCAP webinars accap.uaf.edu/events

- January 21 ▸ A Practical and Scientific Guide to Using Windy.com in Alaska
- January 27 ▸ Arctic Report Card Review
- February 18 ▸ VAWS – Glacier Outburst Flood Hazards from Mendenhall Glacier
- February 19 ▸ Introduction to the AOOS Ocean Data Explorer
- February 24 ▸ LEO Network – Understanding Environmental Vulnerability & Change
- February 27 ▸ February NWS Alaska Climate Outlook Briefing

For more info email Ed Plumb ewplumb@alaska.edu

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Alaska Center for Climate Assessment and Preparedness
A NOAA CAP/RISA team

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