

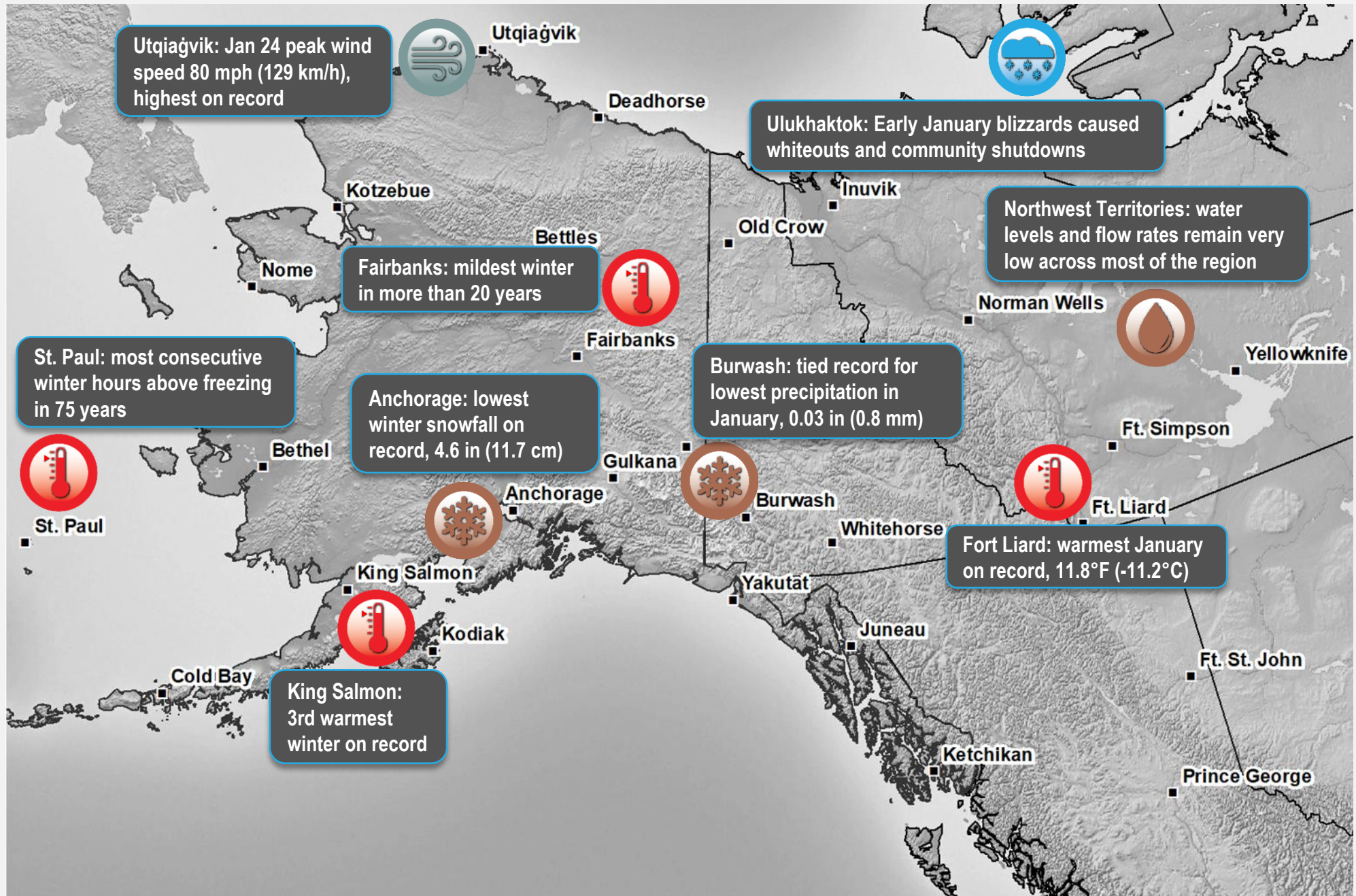
ALASKA and NORTHWESTERN CANADA

Weather and Climate Highlights and Impacts, December 2024 to February 2025
Climate Outlook, April 2025 to June 2025

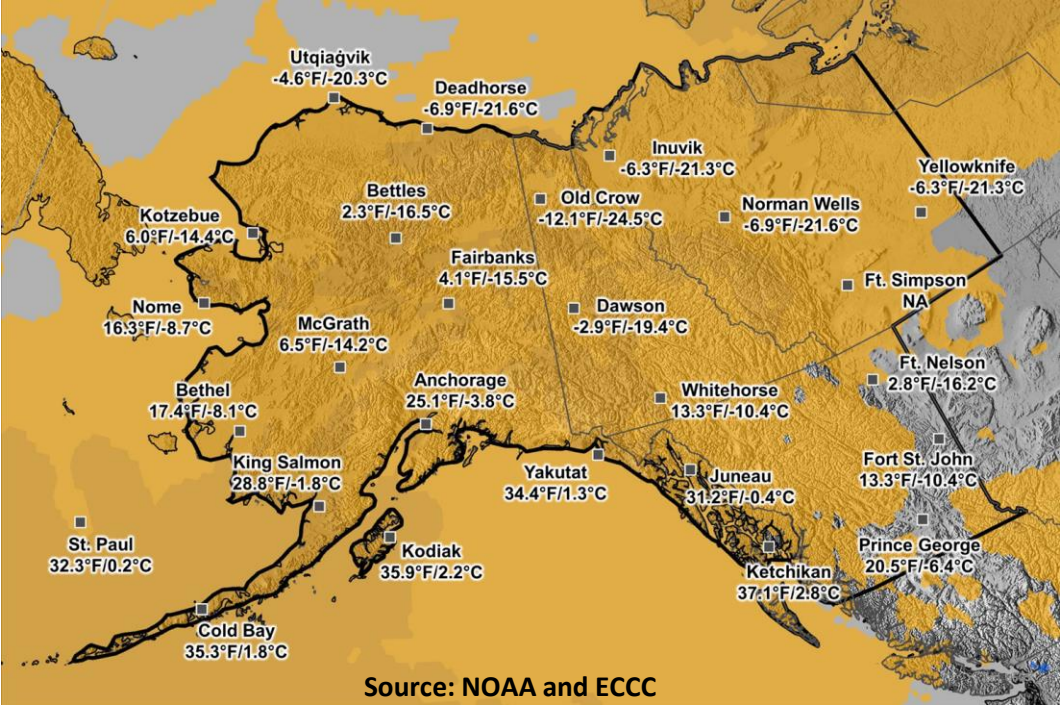


Environment and
Climate Change Canada

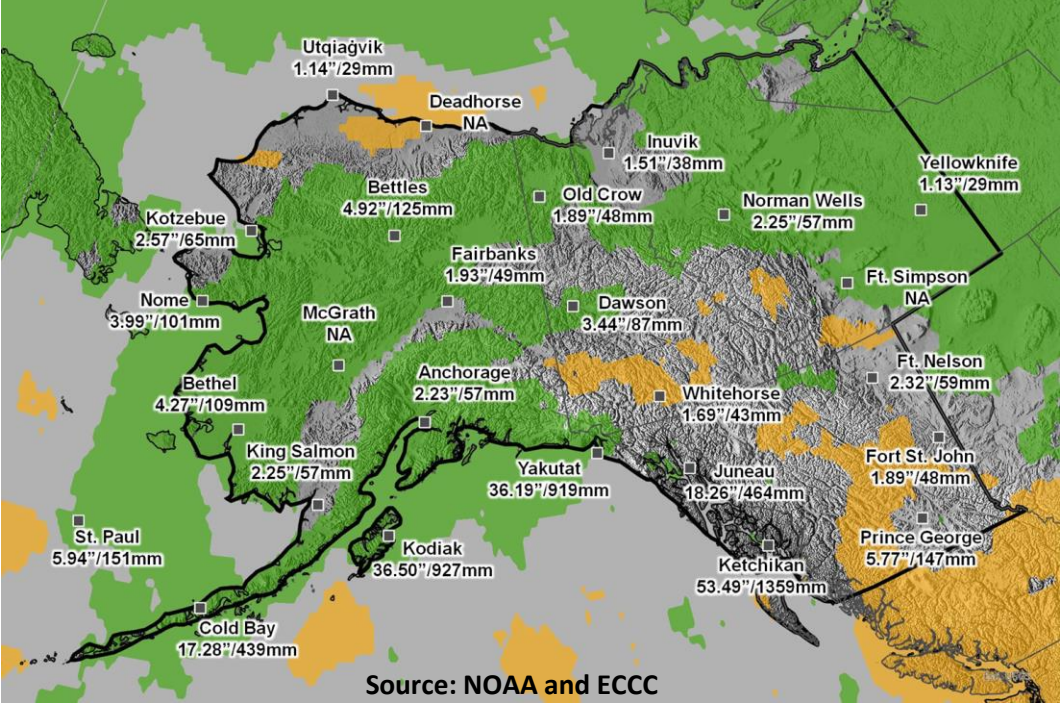
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Dec 2024 to Feb 2025 Temp Averages (°F/°C) & Anomalies **Below** / **Above** / Normal



Dec 2024 to Feb 2025 Precip Totals (inches/mm) & Anomalies - **Dry** / **Wet** / Normal



January Rainfall Impacts Alaska



Photo: Airplane at the Talkeetna airport February 5, 2025, encased in frozen wet snow. Photo credit: Katie Writer

A slow-moving atmospheric river system set up during the fourth week in January between high pressure west of British Columbia and low pressure south of the eastern Aleutian Islands. This resulted in extremely heavy mid-winter precipitation in a wide swath from the southwest mainland into Southcentral Alaska and north into the Interior. More than 1.5 inches (38 mm) of rain fell at McGrath from January 24 to 25, with temperatures below freezing, resulting in power outages in the community. In the Talkeetna area, rain and mixed rain and snow fell from January 23 to 25, with precipitation totals of 3 – 5 inches (76 – 127 mm). The resulting waterlogged snowpack damaged Alaska Department of Transportation snow removal equipment and brought general aviation at Talkeetna Airport to a standstill, as it took a week to free aircraft from concrete-like snow. Rain from this event fell as far north as the northwest North Slope. Fairbanks schools and business closed on January 24 due to very icy conditions, resulting from the highest January rainfall in more than a decade.

Warm January in Northwestern Canada



Photo: Partial ice coverage on Bennett Lake, Yukon, on January 12, 2025.
Photo credit: Benoit Turcotte

January was uncharacteristically warm across much of northwest Canada, impacting transportation, hunting, and ice cover. The entire region saw monthly mean temperatures of at least 5°C (9°F) warmer than normal, with some locations experiencing periods that reached 30°C (54°F) warmer than usual. In the Northwest Territories, Fort Liard had their warmest January on record, and many other locations had their second warmest January on record. Fort Good Hope, Gameti, and Old Crow set records for their highest temperatures ever recorded in January. Yellowknife notably hit over 2°C (35.6°F) on January 26, marking the first time in over 20 years that temperatures breached 0°C (32°F) in the month of January.

The Mackenzie Valley Winter Road was expected to see double the traffic this year to compensate for consecutive cancelled barging seasons due to the low water levels in the Mackenzie River. While the road was functional this season, the warm weather in January damaged some sections, leading to dangerous driving conditions, long delays, and financial consequences. Weight limits on some access roads were significantly cut, further delaying resupply activities to remote communities. Furthermore, temperature fluctuations in the Dehcho Region of the Northwest Territories impacted hunting and trapping, as varying snow and temperatures can change the behaviour of large game. In the Yukon, lakes Altin and Bennett did not freeze over until February. One person died after a vehicle drove into open water on Lake Laberge on January 25.

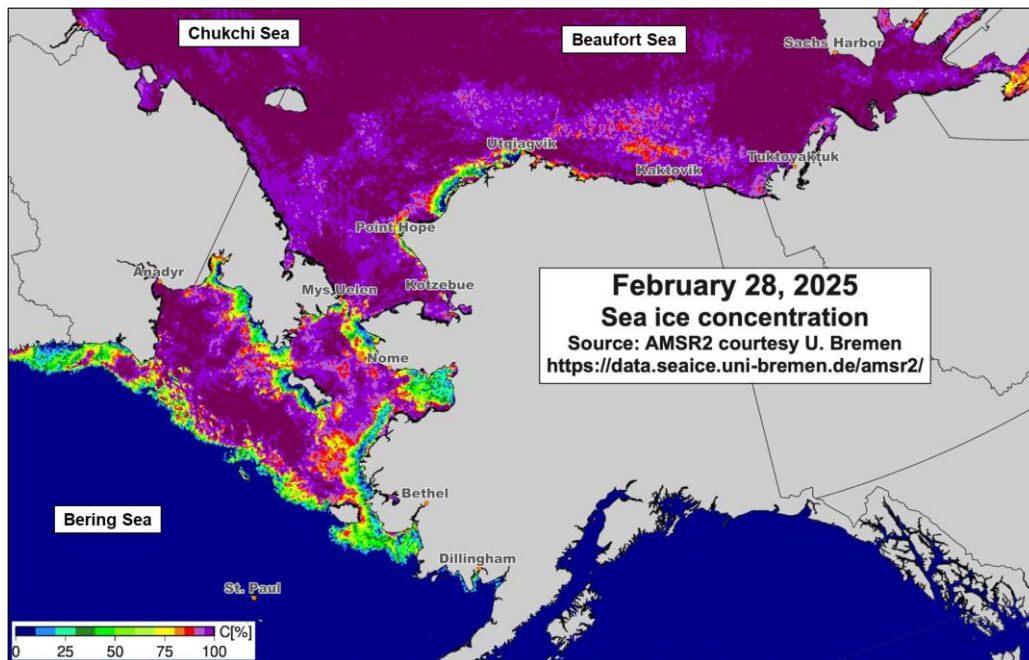
Anchorage Record Low Snow



Photo: Bare ground in Anchorage, Alaska, during late January 2025.
Photo credit: Brian Brettschneider

Snow is a constant presence in Alaska during the cold season. Only in the Alaska panhandle is a lack of snow cover during mid-winter an occasional fact of life. For all other locations, most years have continuous snow cover from November into April. In October 2024, Anchorage, Alaska, experienced near record snowfall and achieved record snow depth. Snow fell a few times through the first half of November but after November 16, the snowfall essentially stopped. December 2024 saw a snow fall of 1.9 inches (48 mm) – the second lowest on record. January 2025 saw 2.4 inches (61 mm) – the 6th lowest snowfall on record. February 2025 saw 0.3 inches (8 mm) – the lowest on record. Altogether, the three-month winter period saw a total of 4.6 inches (117 mm) – easily the lowest snowfall on record – corresponding to 10.5% of normal amounts. A large fraction of Anchorage's winter precipitation fell in the form of rain. Precipitation amounts from December to February were close to normal amounts, totaling 2.23 inches (57 mm) or 80% of the climatological average. An extended warm, windy, and rainy period from mid to late January completely eroded the snow cover, and the last 33 days of winter had zero or trace snow depth. This was the longest period on record without snow during the core part of the winter season.

Sea Ice Concentration Conditions on February 28, 2025, in the Bering, Chukchi, and Beaufort Seas



Despite ice growth being near normal across the region at the beginning of the season, the ice conditions for the three seas varied this winter.

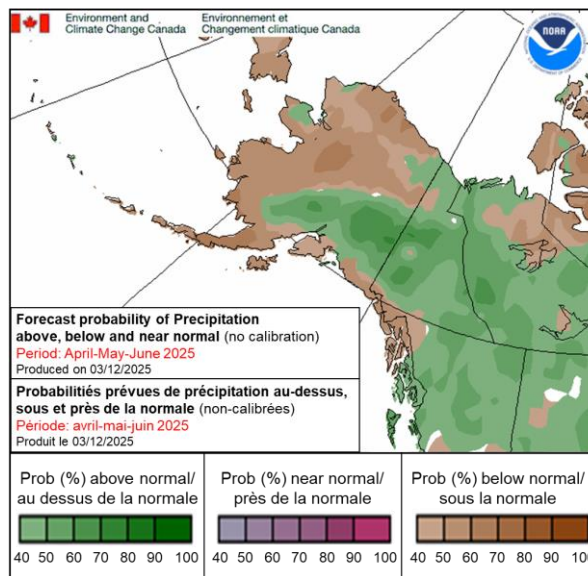
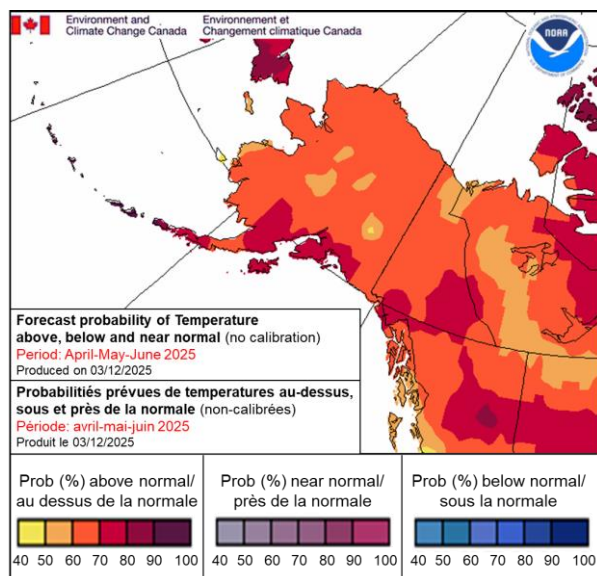
Ice concentrations in the Beaufort Sea were near normal for much of the season, however there was significantly less old ice than usual, particularly in the northwest portion of the sea. Thinner than usual ice was the general trend, with thin first-year ice where medium first-year ice is usually present, and medium first-year ice where old ice usually dominates. Additionally, the leading edge of the old ice was farther south and southeast than usual, due to persistent northwesterly atmospheric circulation.

The Chukchi freeze-up was relatively early and was largely complete by the first week of December. This is the second earliest freeze-up in the past decade, though it is still considered delayed by late 20th century standards.

Ice in the Bering Sea, however, was slow to develop this season and was significantly lower than average from December to February. There was almost no ice in Bristol Bay this winter, and the edge of the pack ice only reached St. Matthew Island at the end of February. At Nome, the nearshore ice broke away on February 11, an apparently unprecedented occurrence this early in the year.

Temperature Outlook: Apr to Jun 2025

Precipitation Outlook: Apr to Jun 2025



The temperature outlook map shows that all of Alaska and northwest Canada have a 40% to 90% chance of above average temperatures in the coming months, April through June. Southern Alaska, southern Yukon, and northeastern British Columbia have the highest probabilities of above average temperatures (over 70% chance), while those for much of the Northwest Territories, northern Yukon, and parts of Alaska are more uncertain.

The precipitation outlook shows probabilities of above normal precipitation in the east and below normal precipitation farther west. Almost all of northwest Canada and southern interior Alaska has a 40-80% chance of above normal precipitation. Western and northern Alaska, as well as the south Alaskan coast, have a 40-70% chance of below normal precipitation.

Content and graphics prepared by NOAA's National Weather Service and National Center for Environmental Information; the Alaska Center for Climate Assessment and Policy at the University of Alaska; and Environment and Climate Change Canada, as well as our regional partners: Alaska Climate Research Center, Alaska Climate Science Center, National Snow and Ice Data Center, and Scenarios Network for Alaska + Arctic Planning.

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