

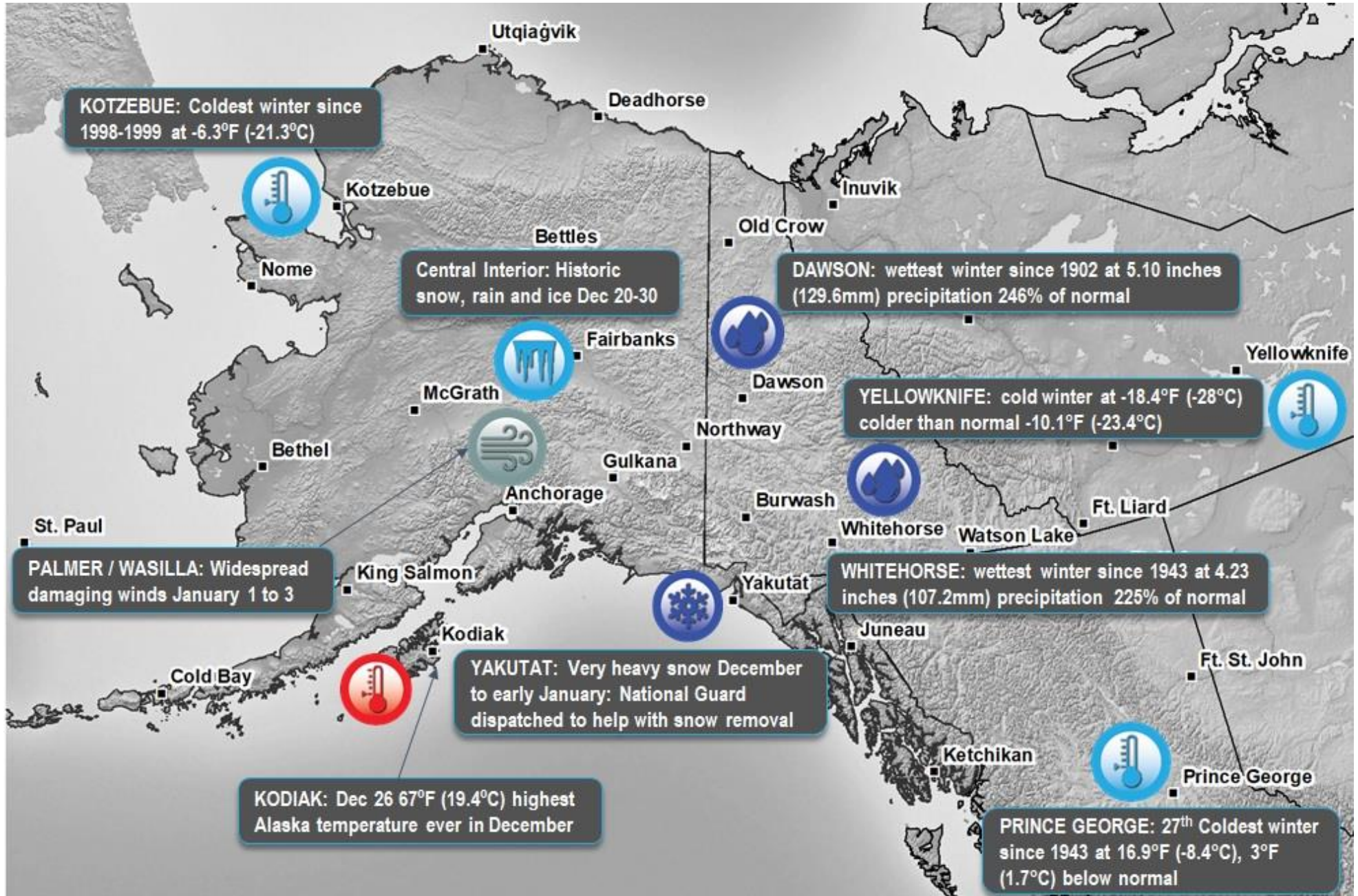
ALASKA and NORTHWESTERN CANADA

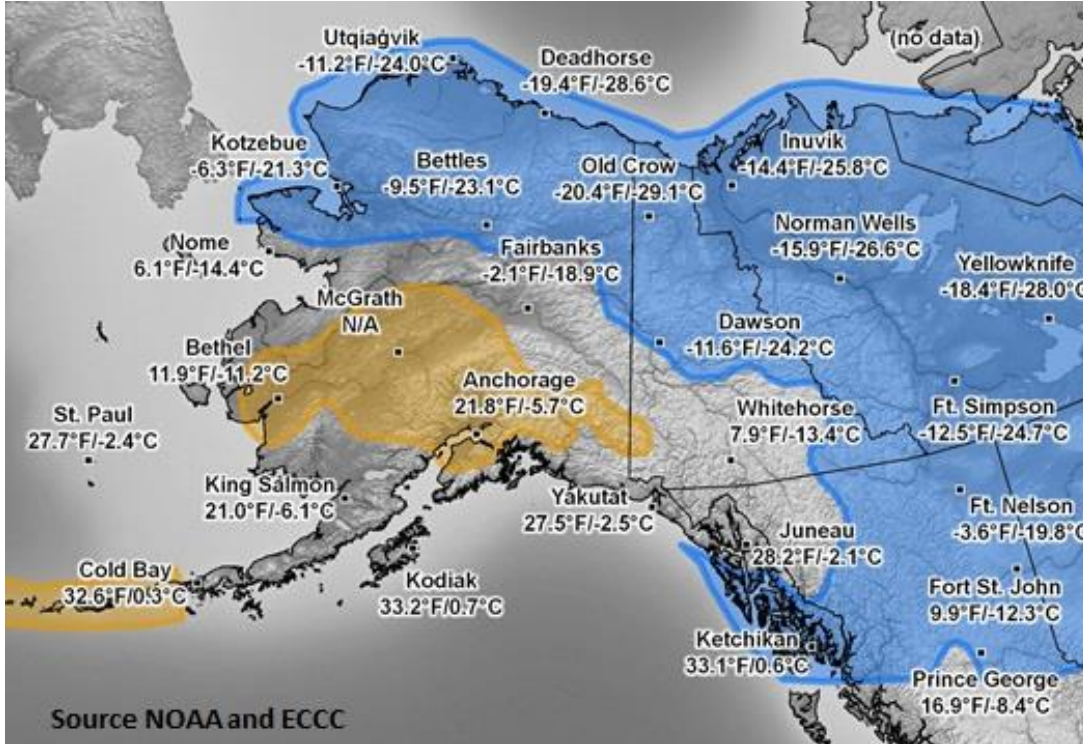
Weather and Climate Highlights and Impacts, December 2021 to February 2022
Climate Outlook, April to June 2022



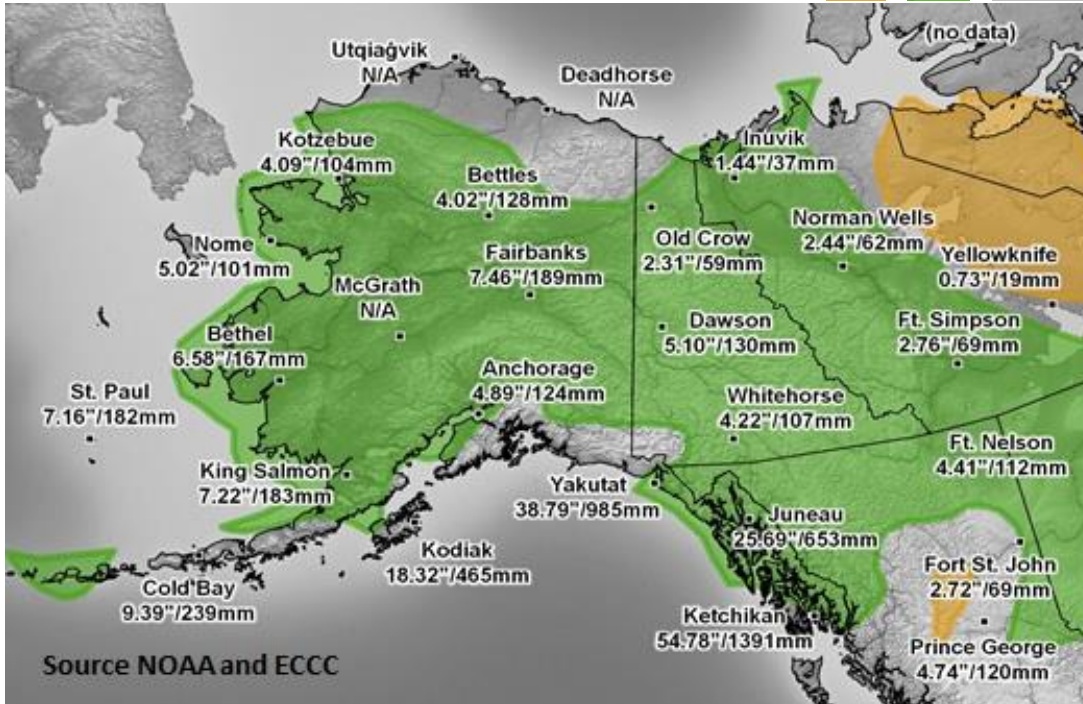
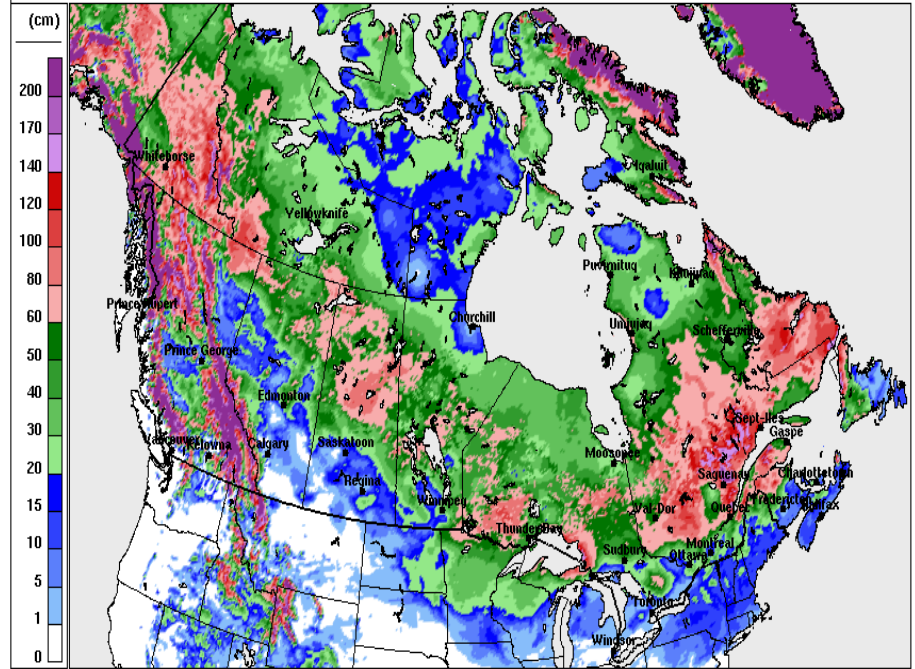
Environment and
Climate Change Canada

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Changement climatique Canada





Snow Depth (end of month): 202202
Neige au sol (fin de mois): 202202



Map showing depth of snow on ground at and near record snow depths across northwest North America (200cm = 78 ¾ inches)

From December 2021 to February 2022, most of Alaska, Yukon, Northwest Territories and northern British Columbia received record to near-record precipitation. The following precipitation amounts are all given as water equivalent depths. That is the depth of water you would have if the snow was melted and added to the rain. Whitehorse (4.22 inches / 107.2mm), Watson Lake (8.94 inches / 227.1mm) and Dawson City (5.10 inches / 129.6mm) all received record high snowfall. Burwash 2.26 inches (57.5mm), Fort Nelson 4.39 inches (111.4mm) and Williams Lake 6.53 inches (165.8mm) all received the third-highest amounts of winter precipitation.

Winter temperatures have been mostly below normal. Whitehorse, Burwash, and Dawson City all came close to the normal average temperature between December 2021 and February 2022. Almost all stations in northern BC were colder than normal. Only Chetwynd (15°F / -9.6°C) and Fort St. John (9.9°F / -12.3°C) had near normal winter temperatures.

Record Snowfall in most of Yukon



Yukon: Twin Creeks Weather Station 23 February 2022

The current snowpack in the Yukon is largely unprecedented, with 26 of 57 sites meeting or exceeding their historical monthly records. Basin-averaged snowpack estimates range from a low of 130% of median in the Alsek River Basin to 201% in the Central Yukon River Basin (Carmacks region). The Central Yukon River Basin, the Lower Yukon River Basin in the Dawson Area (185%) and the Pelly River Basin (177%) have the highest basin snowpack estimates ever recorded.

The highest snowpack for this time of year was observed in the White (171%), Teslin (164%), Peel (155%), and Stewart (148%) river basins, while the Liard River Basin (173%) was near the historical maximum. The Upper Yukon River Basin (Southern Lakes) (147%), Porcupine River Basin (140%), and Alsek River Basin (130%) were above the historical median. Based on historical data, 85% of the annual snowpack is usually on the ground by early March.

Above average spring breakup and snowmelt flood potential are anticipated in most of the territory. (Photo and Text Credit: Yukon Water Resources Branch)

Windstorm in South Central Alaska



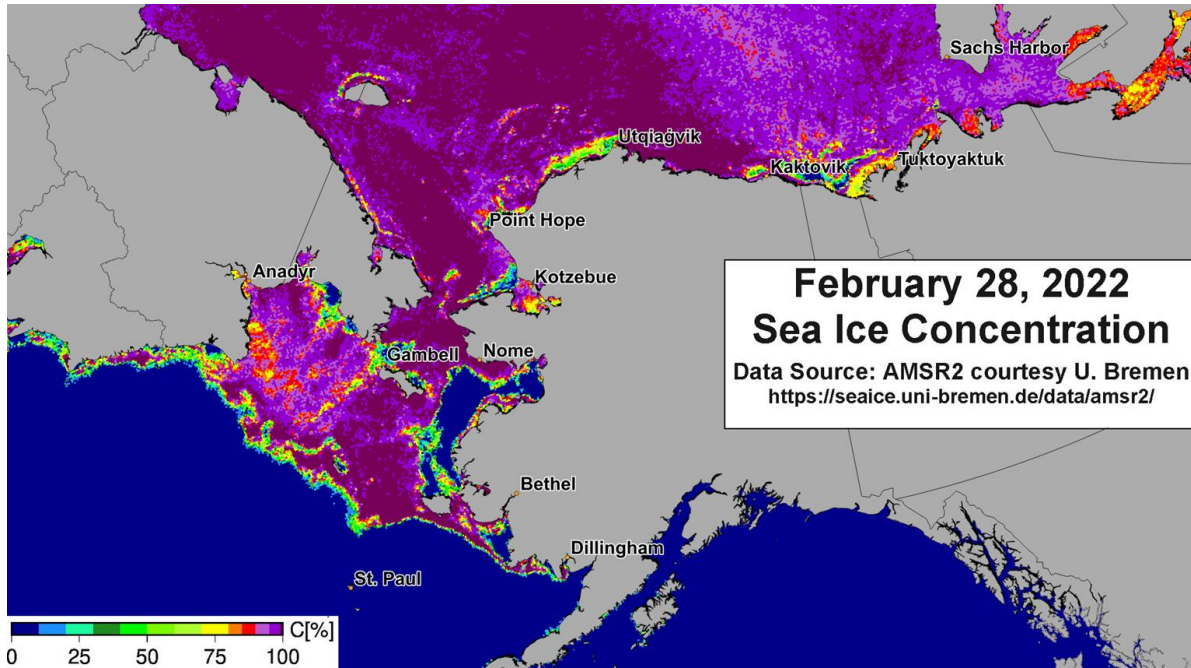
Alaska: Glenn Highway near Palmer, 2 January 2022

The New Year in Southcentral Alaska began with a strong “Bora” wind event. These events typically occur when a strong pressure gradient develops with high pressure in interior Alaska and low pressure in the Gulf of Alaska. When the orientation is just right, a cold northeast wind is channeled through the Matanuska River valley. The outlet of the valley is where Palmer, Wasilla, and Anchorage, Alaska, are located.

Palmer received the brunt of the storm. Wind speeds as high as 95 miles per hour (153 kilometers per hour) were recorded at the Palmer airport, and some estimates were over 100 miles per hour (161 kilometers per hour). Damage to houses, commercial buildings, and vehicles was extensive. State troopers escorted vehicles across the Knik River bridge because visibility was very low due to blowing snow. Even in Anchorage, wind speeds around 50 miles per hour (80 kilometers per hour) were common for several days in the west part of the city. Damage in Anchorage was minimal.

(Photo credit: Alaska Department of Transportation.)

Sea Ice Concentration Conditions End of Winter 2022 in the Bering, Chukchi and Beaufort Seas

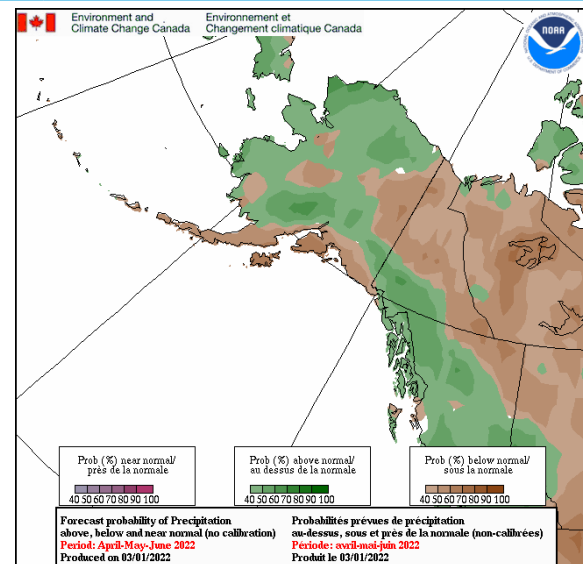
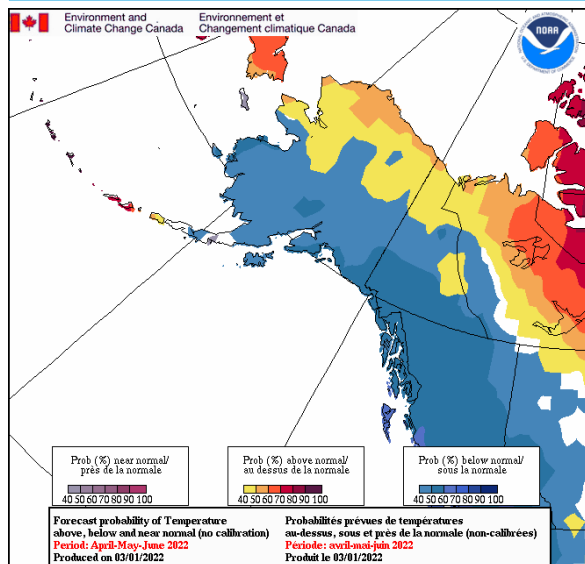


Chukchi Sea: Ice over was complete by early December. However, there were several breakouts of ice at Utqiagvik during the winter just beyond the narrow band of shore-fast ice. Sea ice extent in the Bering Sea was mostly above normal but growth and spread were uneven in December before expanding southward in earnest starting in early January. Sea ice extent by early February was the highest since 2013. The pack ice reached St. Paul Island in the Pribilofs for about a week in February before a change in the weather pattern brought south winds and milder temperatures. This caused the ice edge to retreat northward.

Beaufort Sea: Complete freeze-up of the western Arctic occurred by mid-November 2021, two weeks later than normal. Ice coverage has remained static since then and ice has continued to thicken through the winter, though at a slower rate than normal due to near to above normal temperatures over the region. Large portions of the southern and eastern Beaufort Sea did consolidate in early February; however, this was short-lived as the ice became mobile again by the end of February. The old ice edge in the western Arctic remains further south than normal for this time of year, which is most notable in southeastern Beaufort. Old ice concentrations, in general, are higher than normal for many parts of the Canadian Arctic Archipelago, while they remain slightly below normal in much of the northern Beaufort and the Arctic Ocean.

Temperature Outlook: April - June 2022

Precipitation Outlook: April - June 2022



A combined Canada - USA forecast model is used to provide a temperature and precipitation outlook for April to June 2022.

The temperature outlook map shows that almost all of Alaska (except most of the northern half) and northern coastal Canada have a 40% to 60% chance of below-average temperature (blue colors), with the highest probabilities in southern Yukon and northern British Columbia.

The precipitation outlook map shows that almost all of Alaska (except central eastern and southern coastal areas) and northern coastal and north and central Yukon have a 40% to 70% chance of above-average precipitation (green colors). Most of NW Canada except central and western British Columbia has a 40% to 70% chance of below-normal precipitation.

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