

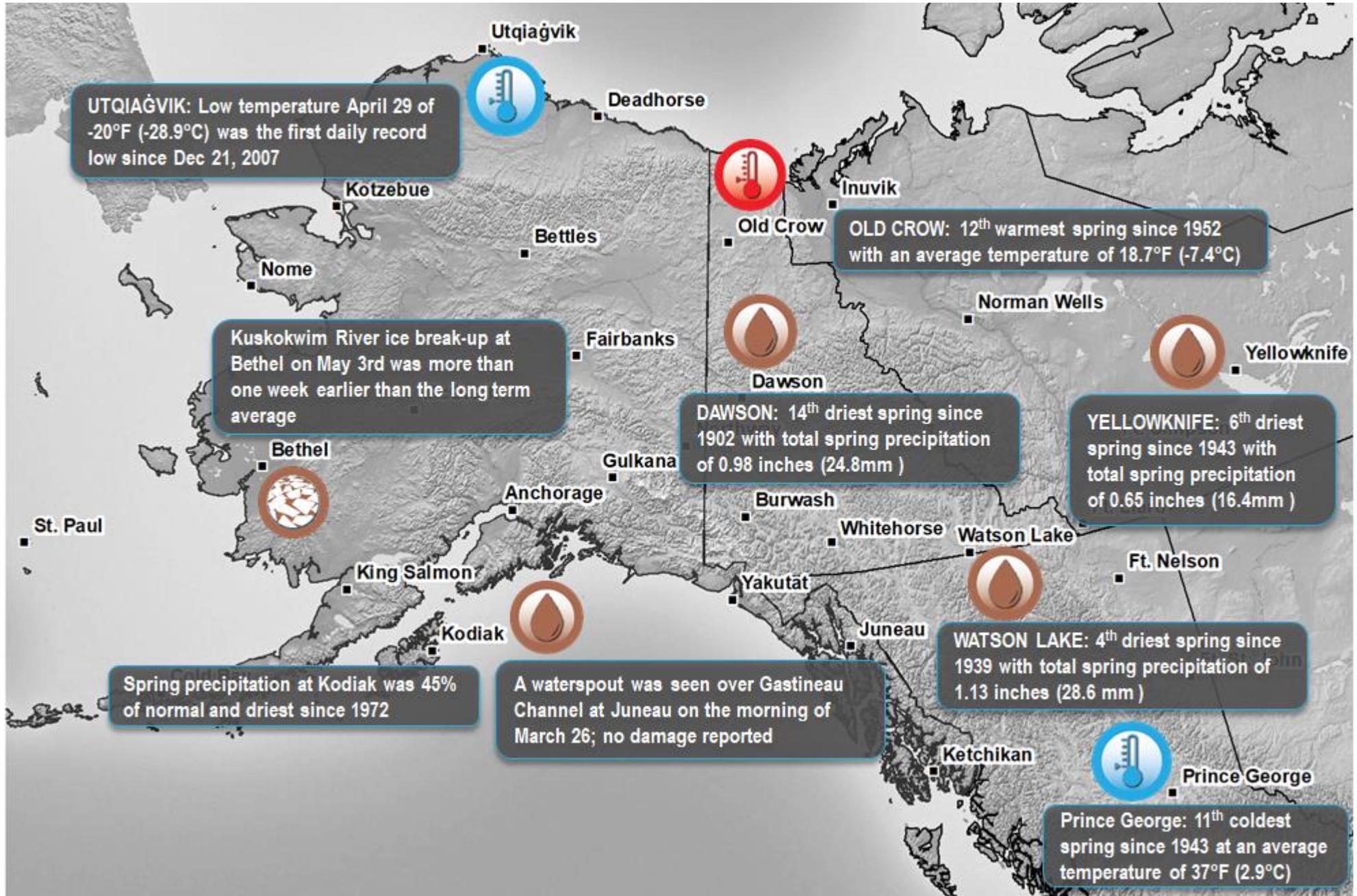
ALASKA and NORTHWESTERN CANADA

Weather, Climate Highlights & Impacts, March to May 2020; Climate Outlook July to September 2020

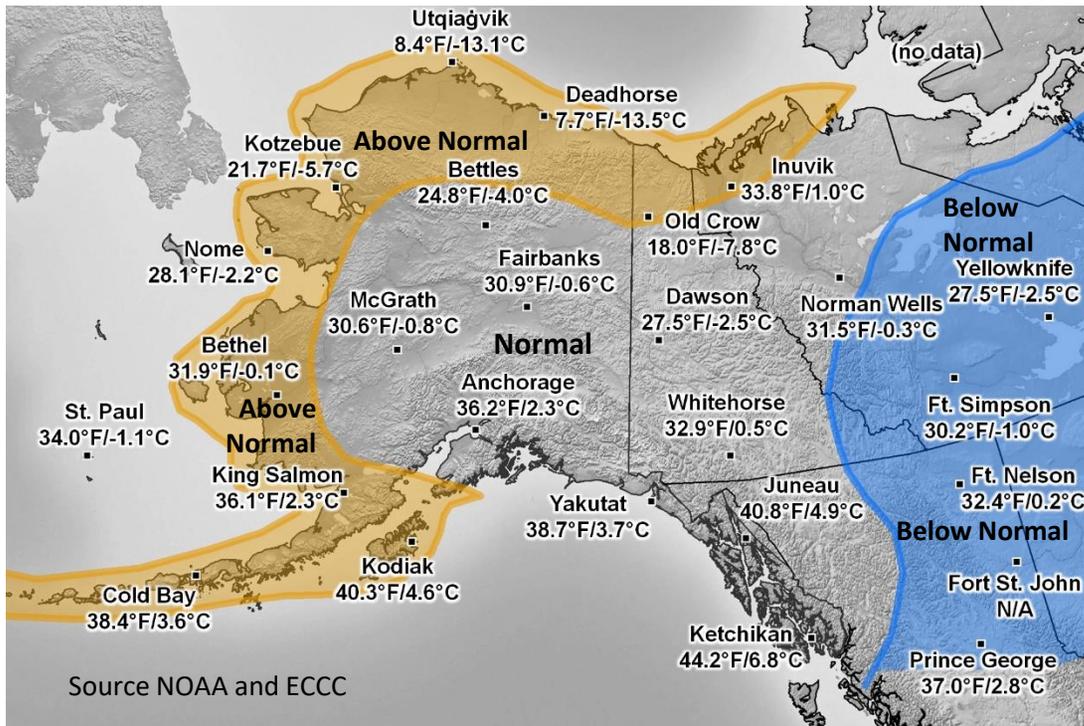


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March-May 2020 Temperature Averages (°F/°C) & Anomalies- **Below** / **Above** / Normal.



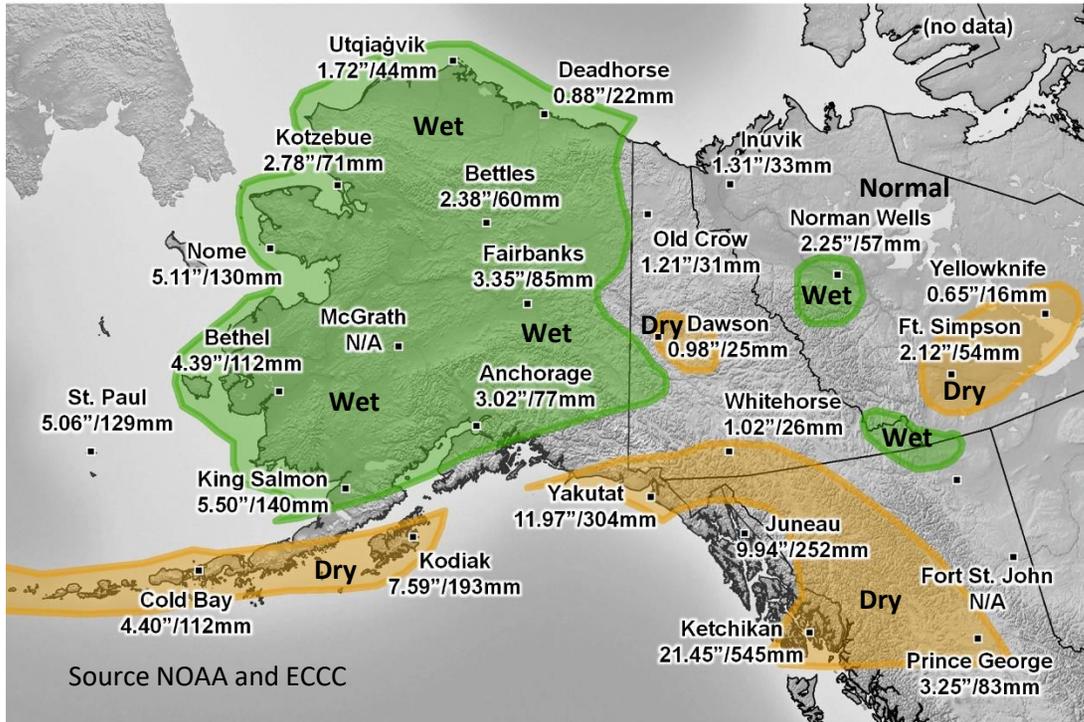
Mixed Spring Weather Conditions with some extreme days

Spring is typically the driest season of the year over most of mainland Alaska, but this year precipitation was unusually high, thanks to a wetter than normal March and April. It was a different story along the Gulf of Alaska coast, where Kodiak had the driest spring since 1972.

The seasonal snowpack by late March was above to much above normal in most places, except for the Kenai Mountains southeast of Anchorage. The deep snowpack set the stage for an eventful river ice break-up in April and May, but more cloudiness than normal maintained temperatures cooler. This resulted in a gradual melt and an uneventful break-up, though many places saw high water once the ice went out. May was exceptionally mild across western Alaska, with Nome recording the highest average temperature in 113 years of observations, while Bethel saw the second mildest May on record.

In Canada, spring 2020 average temperatures were warm in the extreme northwest, normal in central Alaska and Yukon and below normal in central and eastern Northwest Territories and northeast British Columbia. Precipitation was normal at most Canadian locations. Fort Liard in the extreme southwest of Northwest Territories experienced a drier than normal spring until a heavy precipitation event occurred on May 31st.

March-May 2020 Precipitation Totals (inches/mm) & Anomalies- **Dry** / **Wet** / Normal.



Chena River Ice breakup April 2020, near Fairbanks Alaska by J. Stricker



Fraser River ice Prince George, BC



Photo of Fraser River Near Prince George, BC, By V. Foord, BC MoF. 19 April 2020

With the cool spring, many of the Nechako and Fraser river banks still had ice built up along the edges by the beginning of April. Note the many ice blocks in the above photo which made their way down the Fraser River after ice breakup in mid April.

In the Prince George area, March and April, were colder than normal, and Prince George Airport recorded the driest April on record since 1912. The upper Fraser Basin had an above normal snowpack this year, which increased the risk of floods. However a dry cool spring prevented this from happening, although in the north the potential still exists. In contrast, there has been significant flooding in the Quesnel, Williams Lake and Cache Creek river basins. A number of old landslides in the Quesnel area have reactivated this year (cause unknown), but a deep frost layer from a cold winter might be partly responsible.

The wildfire outlook for north central BC and most of the north is potentially elevated due to forecasted hot dry conditions for most of the bulletin area. Many parts of the north, including Fort Liard, have seen some improvements due to precipitation in late May to early June. Much of the north has not received much precipitation since April, causing soils to rapidly dry out and the fire risk to rise. This elevated potential for wildfire is most significant in Central and Northern Yukon and adjacent parts of Northwest Territories. Fort Liard, was very dry this spring until it received a record one day precipitation of 1.6 inches (40.5mm) on May 31st.

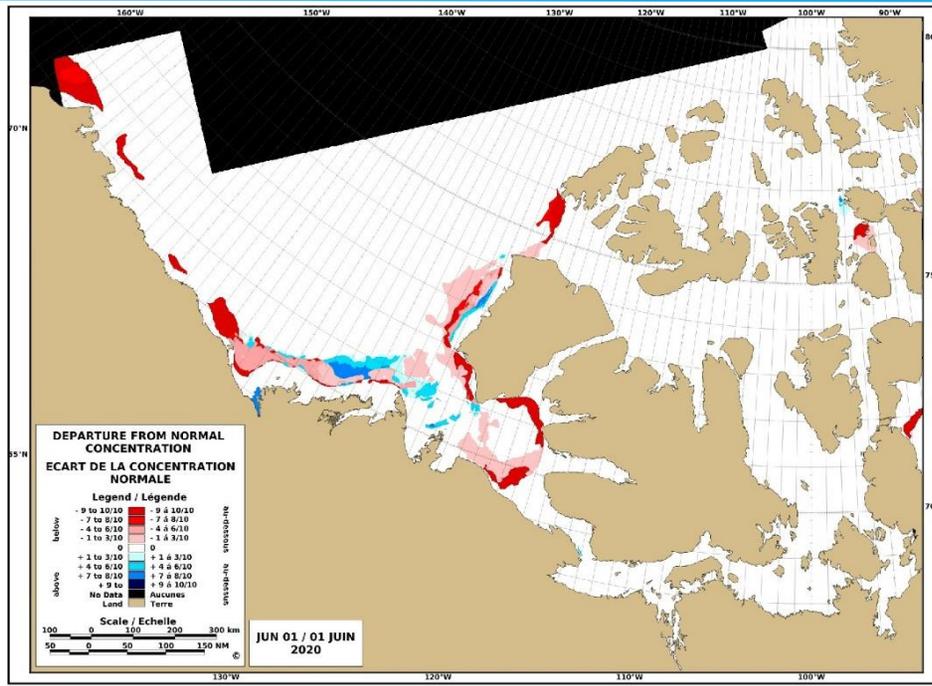
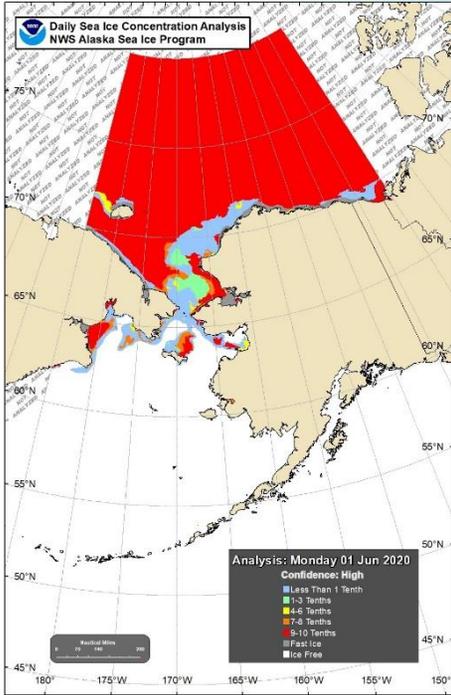
Iditarod Sled Dog Race, Alaska, Spring 2020



The 48th annual Iditarod Sled Dog Race, the premier international sporting event in Alaska, started in Anchorage on March 7. Trail conditions were quite different than in recent years. There was deep to very deep snow to contend with from Willow to McGrath, and a couple of mornings saw temperatures drop well into the minus 30s. However, a dramatic change in the weather pattern starting on March 12 brought much milder weather, including temperatures above freezing, and some teams even had to deal with rain along the Seward Peninsula coast. During the race, three mushers were trapped by a flooded trail near Safety, east of Nome on Friday, March 20. A week of persistent south winds had cracked shore-fast ice and elevated ocean water levels, causing water to ooze out through the cracks and flood the sea ice. The teams were rescued by the Alaska Army National Guard based in Nome. COVID-19 also impacted the race, with many communities beyond McGrath keeping race checkpoints outside of villages, and all end of race events in Nome were cancelled. Because of travel restrictions, race winner Thomas Waerner of Norway was stuck in Alaska for nearly three months until he and his dog team were able to return to Norway the first week in June. Iditarod photos credit, Nome Nugget Newspaper.

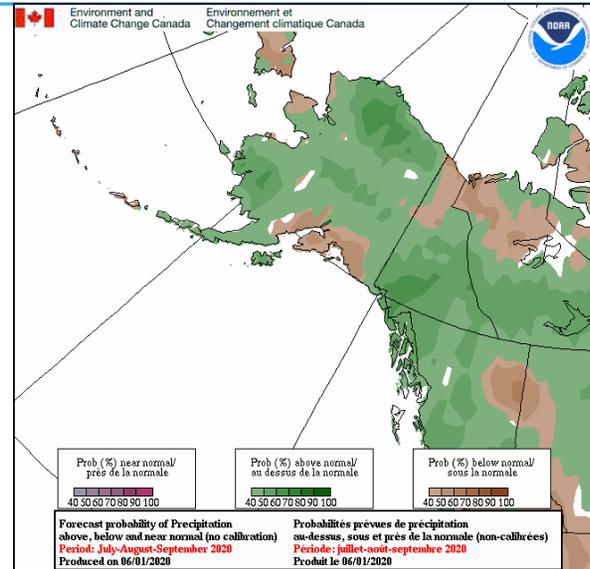
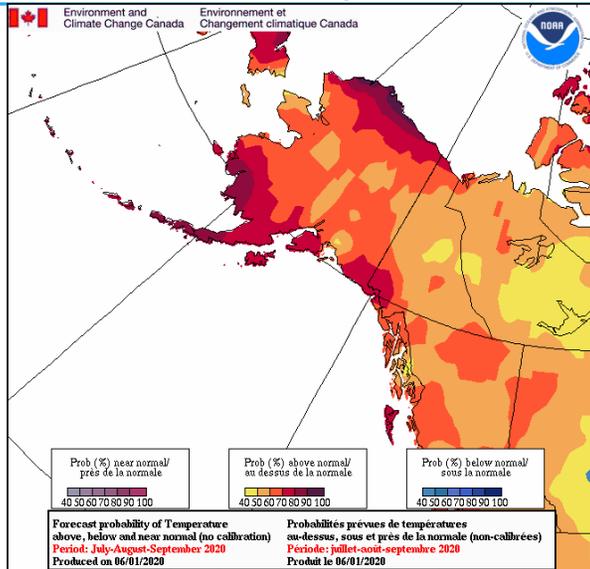


Sea Ice Concentration Conditions & Departure from Normal Conditions June 1, 2020 in the Chukchi and Beaufort Seas



Sea extent reached its seasonal maximum on March 12, which is near the long-term average. However, a change in the weather pattern in the second half of March caused a record rapid loss of ice. Thereafter the remaining ice slowly melted. At the end of May, ice extent was the highest since 2013 but still well below the long-term average. Sea ice melting began in earnest in the Chukchi in May, both from melt in the south and from the seasonally typical easterly winds in the north. The extent of the open water area at the end of May was less than in the past three years but close to the post-2000 average. Temperatures during the period were above normal, particularly over the western side of the Beaufort Sea, hence the ice thicknesses were generally below normal. By the beginning of June, lower ice concentrations to open water leads began to develop in the southeastern part of the Beaufort Sea and into the Amundsen Gulf area. At the same time, the leading edge of the old ice pack was further south than normal and was located about 45 to 60 nautical miles (83 to 111km) from the Yukon and northern Alaskan coasts.

Temperature Outlook: July-September 2020 Precipitation Outlook: July-September 2020



A combined Canada - USA forecast model is used to provide a temperature and a precipitation outlook for June to August 2020.

The temperature outlook map shows that all of Alaska, Yukon, Northwest Territories, British Columbia and most of Alberta has a 40 to 90% chance of above normal temperatures (yellow-orange-red areas). The highest probabilities are for the northern slope and southwestern parts of Alaska, the Aleutian Islands and southwestern and northwestern Yukon and northwest Northwest Territories.

The precipitation outlook map for July to September shows that the majority of Alaska, British Columbia and central and southern Yukon, central, southern, and northeastern coastal Northwest Territories have a 40 to 70% chance of above normal precipitation (green areas). Some areas of northwestern coastal and central southern Alaska and most of northern Northwest Territories and northeastern British Columbia will likely have below normal precipitation (40 to 70% chance, brown areas).

Content and graphics prepared in partnership with the Alaska Center for Climate Assessment and Policy and Environment and Climate Change Canada.

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ALASKA CENTER FOR CLIMATE ASSESSMENT AND POLICY CONTACTS:

RICK THOMAN
rthoman@alaska.edu

BRIAN BRETTSCHEIDER:
brbrettschneider@alaska.edu

ENVIRONMENT AND CLIMATE CHANGE CANADA WESTERN CONTACT

MARK BARTON
mark.barton@canada.ca