

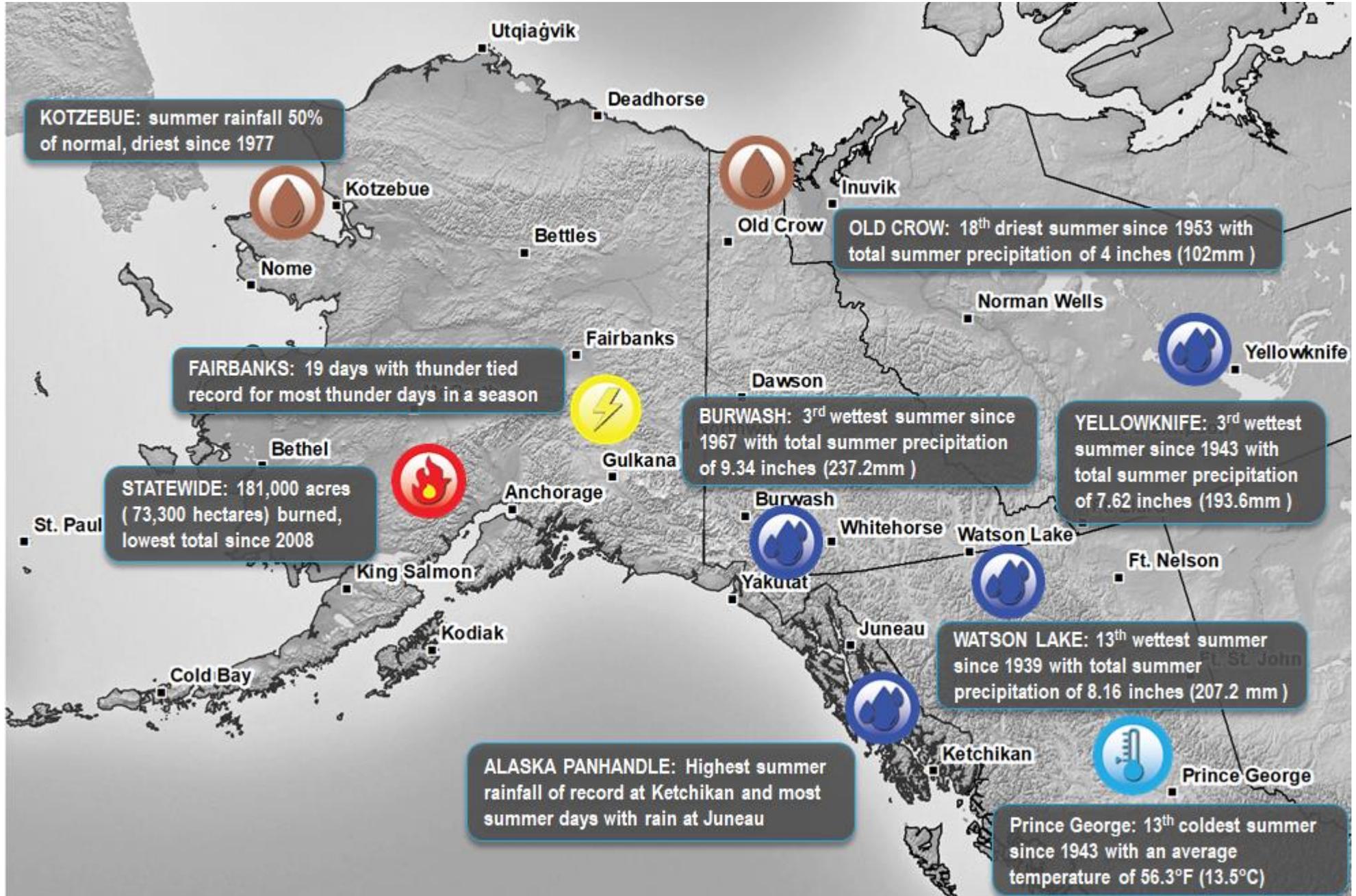
# ALASKA and NORTHWESTERN CANADA

Weather and Climate Highlights and Impacts, June-August 2020; Climate Outlook October-December 2020

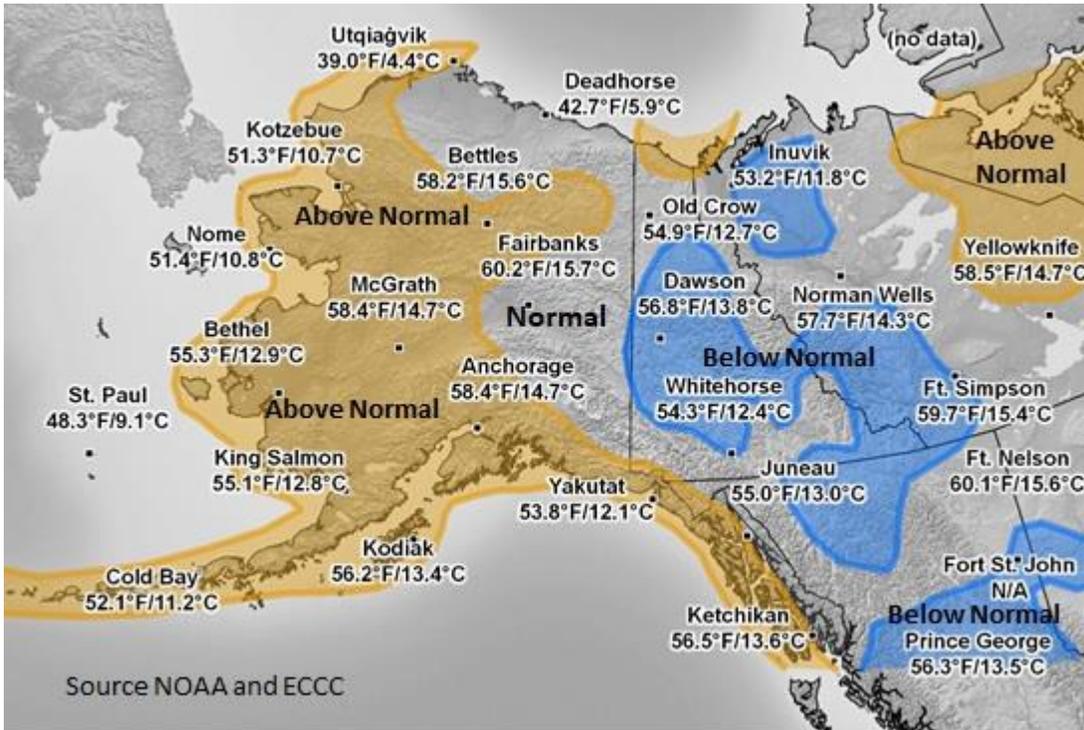


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**June-August 2020 Temperature Averages (°F/°C) & Anomalies- Below / .Above / Normal.**



**A record quiet wildfire season in most of northwest North America**

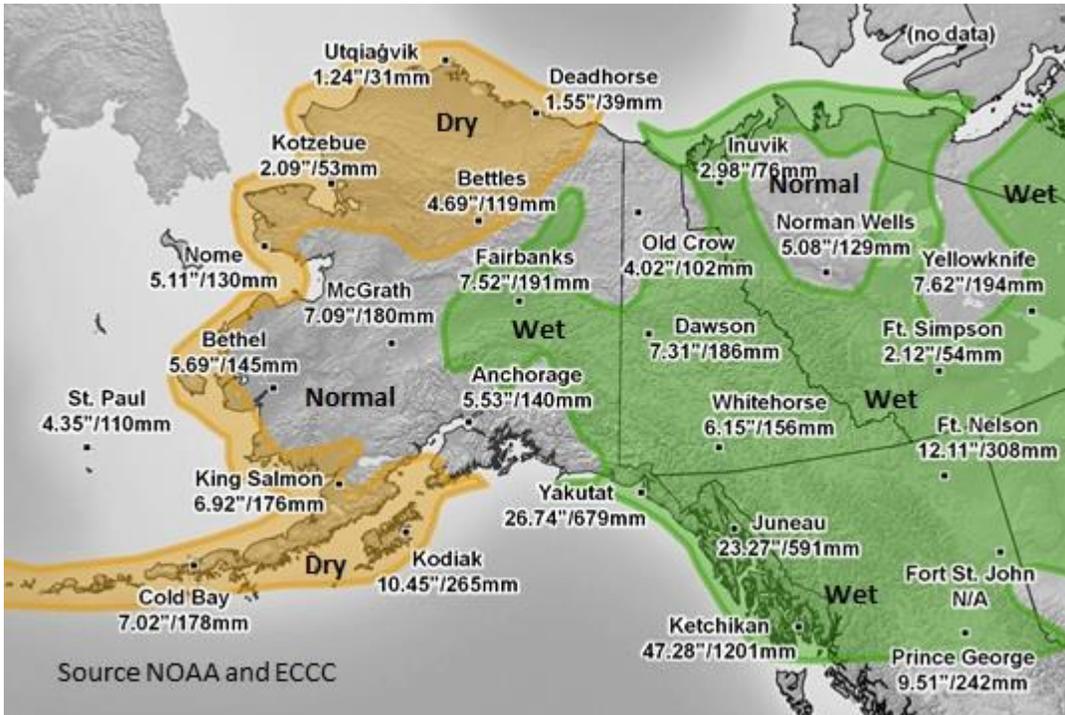
While wildfires burned across Siberia, Alaska and the Canadian North experienced very little wildfire activity.

Wildfires in Yukon and Northwest Territories burned a combined 32,600 hectares, their lowest seasonal total since 1988. Alaska had the lowest area burned since 2002. Several factors contributed to this quiet season. The same upper-level atmospheric pattern that allowed for early snowmelt and sustained high temperatures in northern Asia also led to later than average snowmelt in northwest North America. As a result, the drying of the landscape was delayed. Furthermore, in many areas west of the Mackenzie River, the month of June was unusually wet, which coincides with the time when, historically, many fires start.

In July, most of northwest Canada had significantly more rain than normal, while the northern Yukon and northeast Interior Alaska were exceptionally cool.

August was generally milder than normal, but by then it was too late for significant fires to develop due to the shortening daylight, and in some areas continued wet weather.

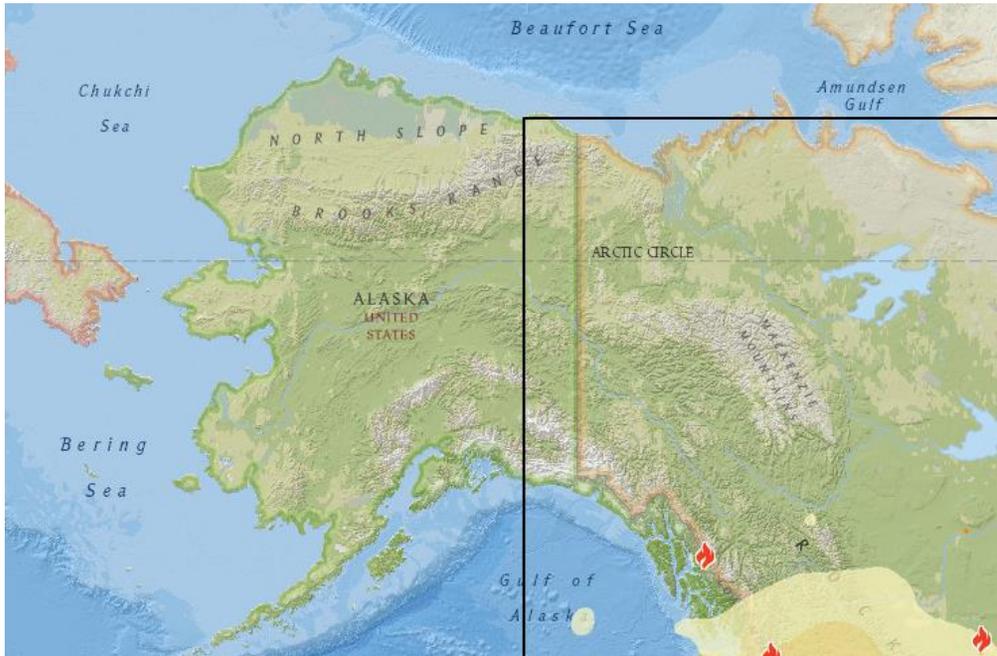
**June-August 2020 Precipitation Totals (inches/mm) & Anomalies- Dry / Wet / Normal.**



**Ingakslugwat Hills Fire, Alaska Summer 2020**



## Wildfire Smoke Map Late Summer 2020 (Source: Firesmoke.ca)



Map showing that ground level particulate levels were largely confined to southern BC during summer 2020

Summer was cloudy and wetter than normal over eastern Alaska, Yukon, Northwest Territories and Northern BC. Prince Rupert reported its wettest ever summer since 1909, with a total of about 31.46 inches (800 mm) of rain (206% of normal summer precipitation) in what is normally a dry season. This wetness in North America was largely due to a persistent ridge of high pressure west of California that diverted the storm tracks northward.

In the Yukon, Burwash and Mayo both experienced their third wettest summers on record. The Mayo record starts in 1926 and the Burwash record in 1967. Almost all locations in Northwest Territories and Yukon were wetter than normal by about 30% or more. Old Crow was the only Yukon location with conditions somewhat drier than normal, with 79% of normal precipitation.

Temperatures were generally colder than normal or close to normal in Yukon, Northwest Territories and northern BC. Most of these locations were 0.9-1.8°F (0.5 to 1.0°C) colder than normal. Terrace BC had its 4th coldest summer since 1913 with a summer average of 39.78°F (14°C), which is 3.24°F (1.7°C) below normal.

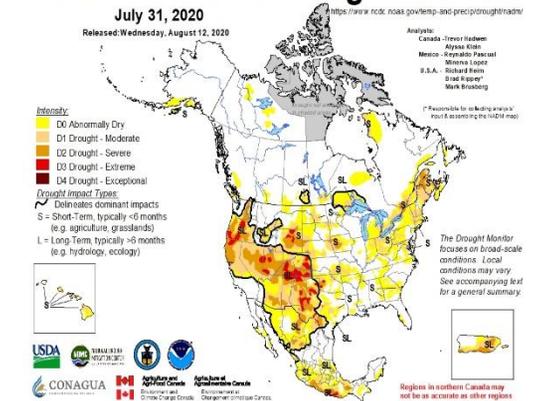
## Lou Lake Wildfire Summer 2020



Aerial Photo of the Lou Lake Alaska Wildfire Late summer 2020

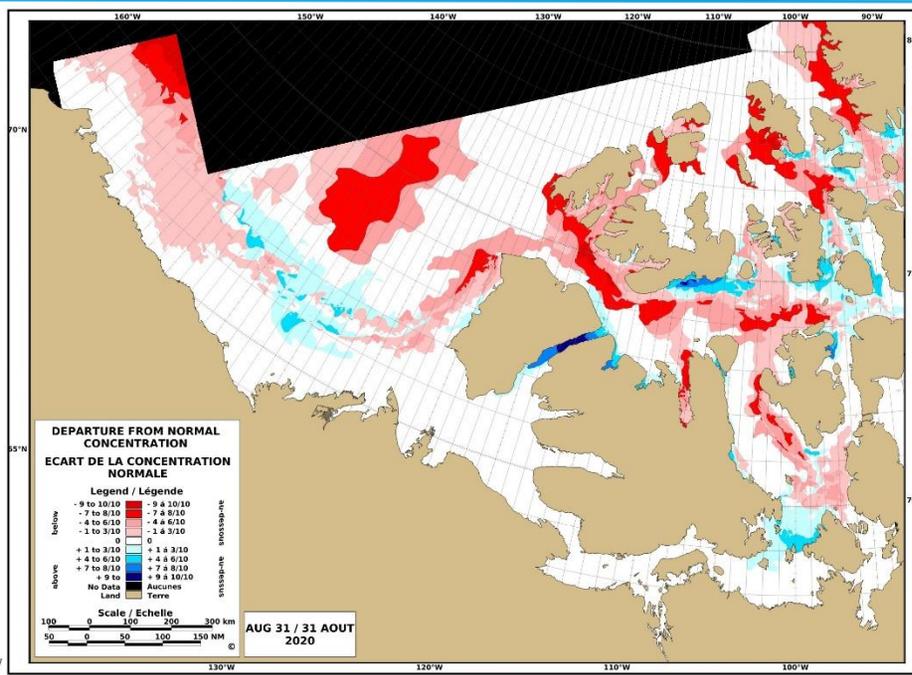
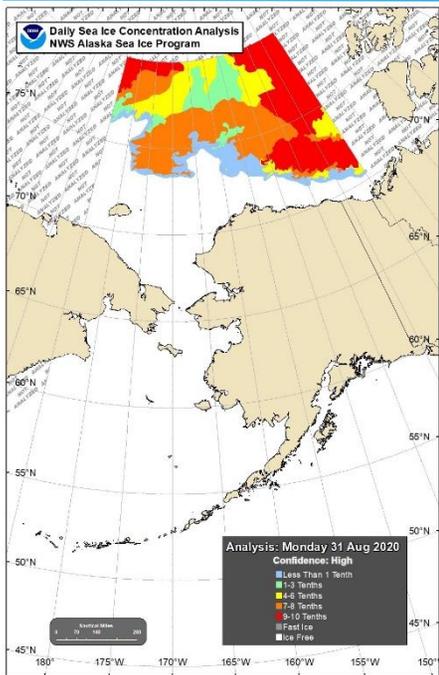
The 2020 wildfire season saw the lowest total acreage burned in Alaska in twelve years. However, unusual early season lightning sparked a number of tundra fires northwest of Bethel in the Kuskokwim delta region that wound up burning more than 101,700 acres (41,200 hectares). This was more than half the area burned in Alaska in 2020 and included the 12,000 acres Manokinak River Fire, about 25 miles (40km) north of Newtok/Mertarvik. This is evidently the closest large wildfire to the Bering Sea coast in this part of Alaska since reliable records began in the 1940s.

### North American Drought Monitor



Map of North American drought areas showing the small area of drought in Alaska and NW- Canada. This pattern is representative of the 2020 summer conditions.

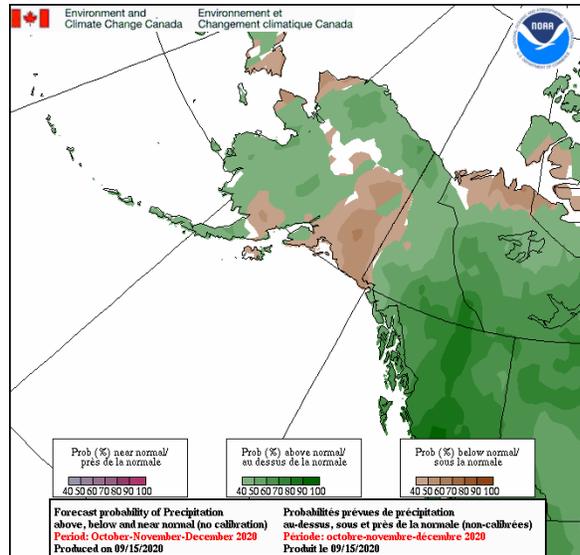
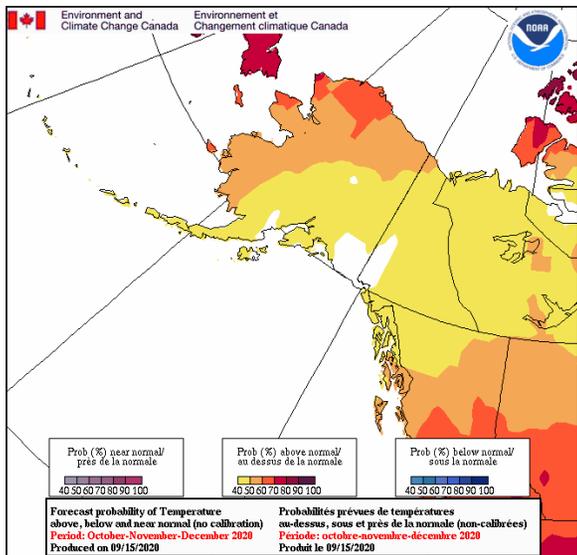
# Sea Ice Concentration Conditions & Departure from Normal Conditions 31 August 2020 in the Chukchi and Beaufort Seas



Sea ice melt in the oceans around Alaska and NW-Canada was slower this summer than in the record early melt of 2019. Some ice persisted in the northeast Bering through the first week of June, and in the Gulf of Anadyr into the second half of June. Sea ice was gone in the open Chukchi Sea south of Point Hope by mid-month but persisted into late June in southern Kotzebue Sound. The Chukchi coast was completely open to Pt. Barrow by mid-July. The strongest high Arctic storm since the 2012 Arctic hurricane affected the northern Chukchi and northwest Beaufort Seas at the end of July, and the second half of August saw rapid expansion of open water in the Chukchi Sea, as the ice that had been broken into smaller bits during the storm melted away. Near-shore ice on the Alaska Beaufort Sea coast was much slower to melt than in 2019 but became sea ice free from Pt. Barrow to Demarcation Point by the second week of August. Thereafter Beaufort Sea ice continued to slowly melt, and at the end of August the closest sea ice to the Alaska coast was about 75 nautical miles north of Kaktovik. Ice covered about one third of the Beaufort Sea in late August.

## Temperature Outlook: Oct-Dec 2020

## Precipitation Outlook: Oct-Dec 2020



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

The temperature outlook map shows that all of Alaska, Yukon, Northwest Territories, British Columbia and most of Alberta has a 40 to 70% chance of above average temperatures (yellow-orange areas). The highest probabilities are expected in northern Alaska and the Canadian Arctic Islands.

The precipitation outlook map shows that most of Alaska, British Columbia, Yukon and most of Northwest Territories have a 40 to 80% chance of above normal precipitation (green areas). Some areas of southwestern coastal and central eastern southeastern Alaska, as well as coastal Northwest Territories, 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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