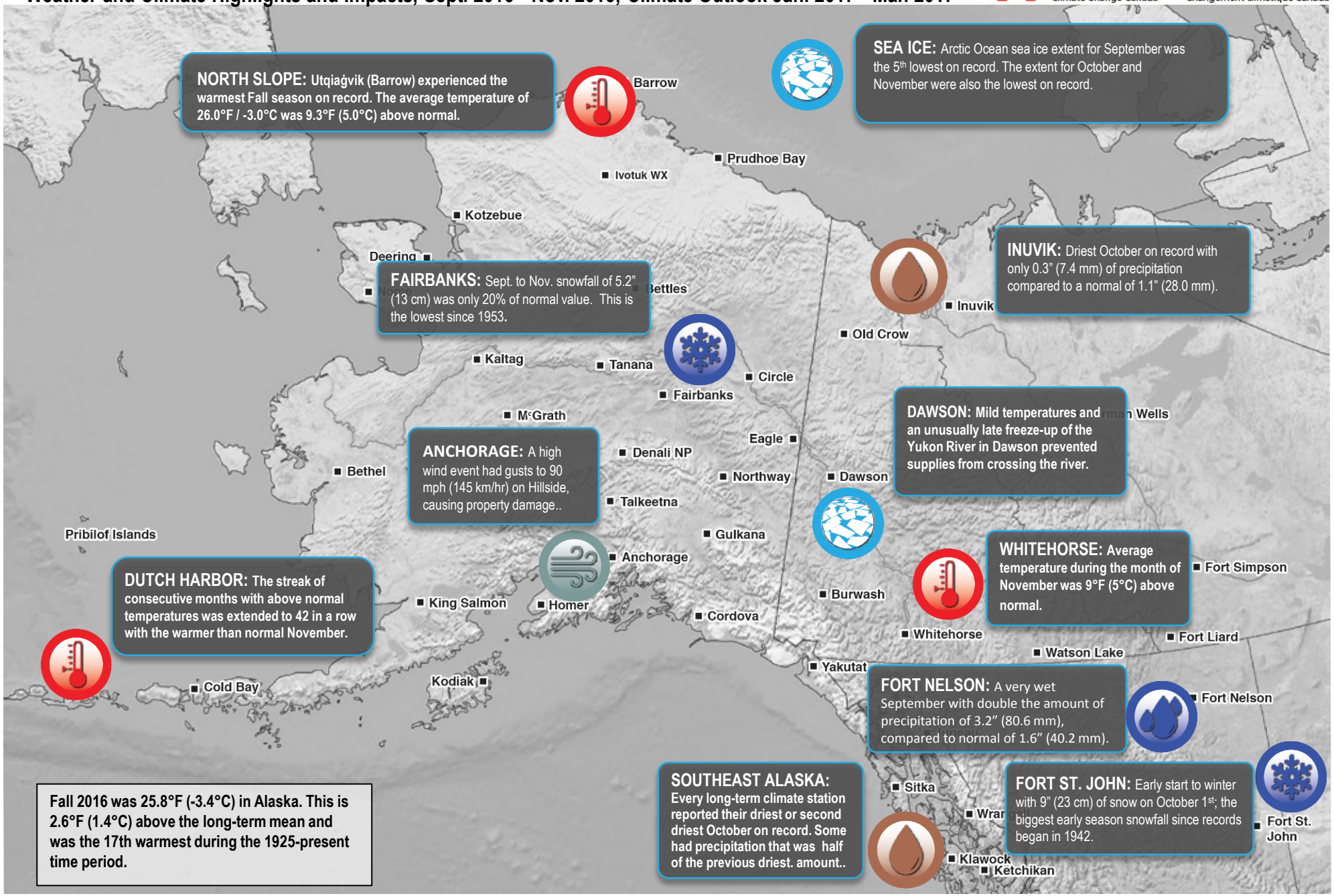
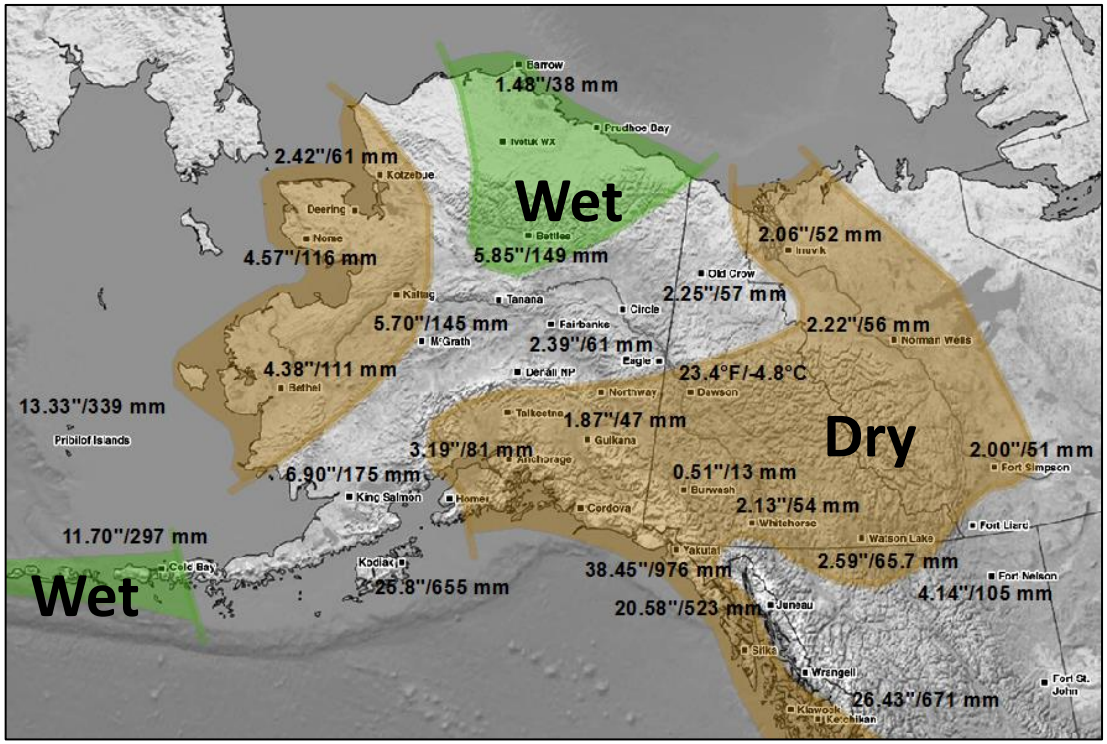
ALASKA and NORTHWESTERN CANADA

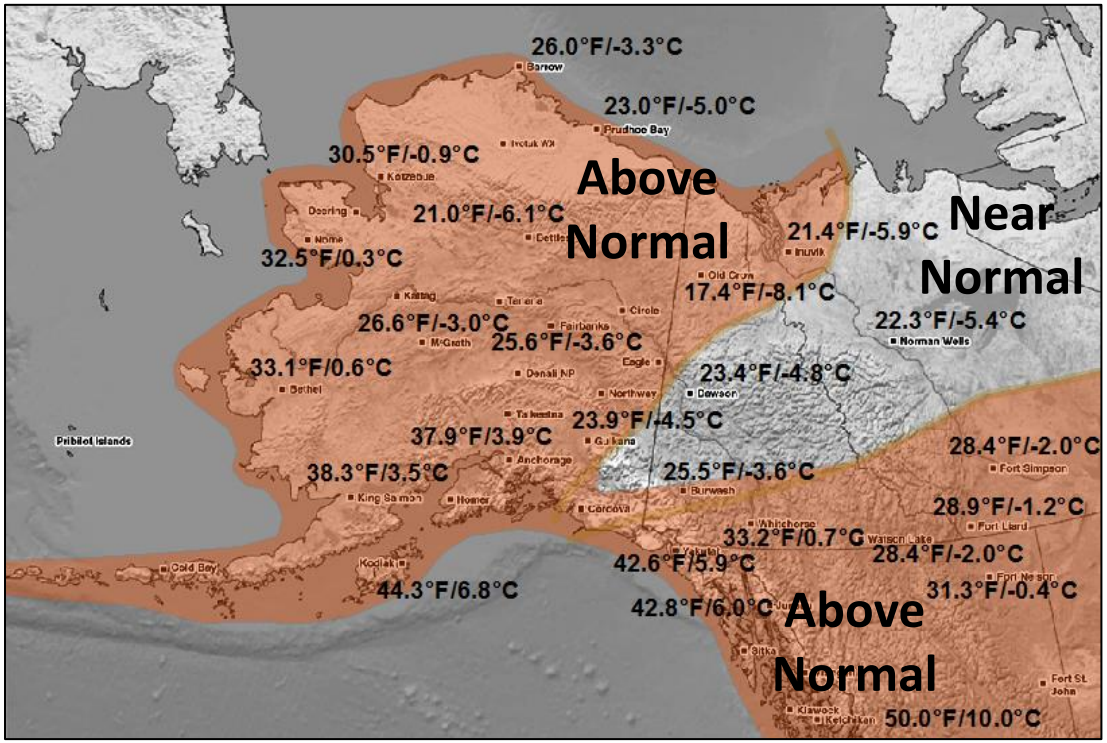
Weather and Climate Highlights and Impacts, Sept. 2016 - Nov. 2016; Climate Outlook Jan. 2017 - Mar. 2017

Environment and Climate Change Canada | Environnement et Changement climatique Canada





Source: NOAA and ECCC



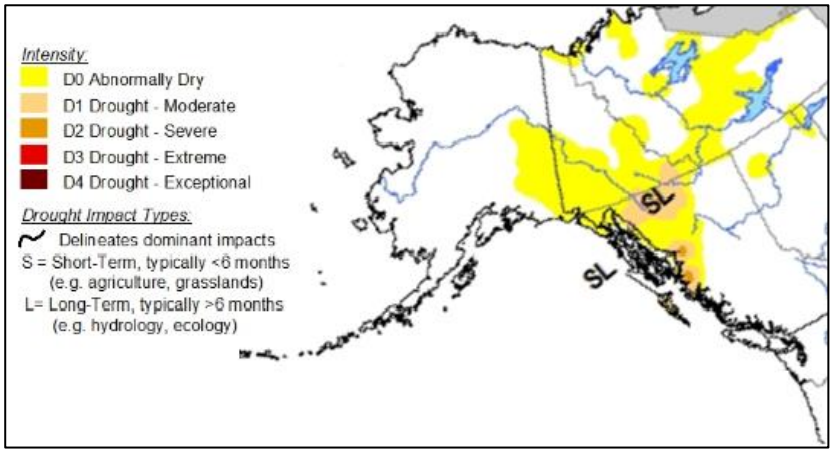
Source: NOAA and ECCC

Temperature & Precipitation, Sept.-Nov. 2016

Fall 2016 saw near normal temperatures in the central Yukon and northern Northwest Territories (NWT). Every other portion of the region was above, or significantly above normal. Most of the areas in the near normal category were actually slightly above normal. Along the Alaska North Slope, Utqiaġvik (formerly Barrow) experienced their warmest fall on record. This is largely a result of record low Arctic Ocean sea ice. Record warm Pacific Ocean waters contributed to the unrelenting warmth of the coastal regions. Precipitation in southeastern Alaska was below normal for the season and at a record low for the month of October. Nearly every station in southeast Alaska had their driest October on record. In northwest Canada, almost all of the Yukon Territory was drier than normal. Most other areas were near normal in Canada. The northern portion of Alaska and the Alaska Peninsula were the only regions with above normal precipitation. This is likely due to warm, ice-free water which provides atmospheric heat and moisture at a time of year when it is typically locked away under ice.

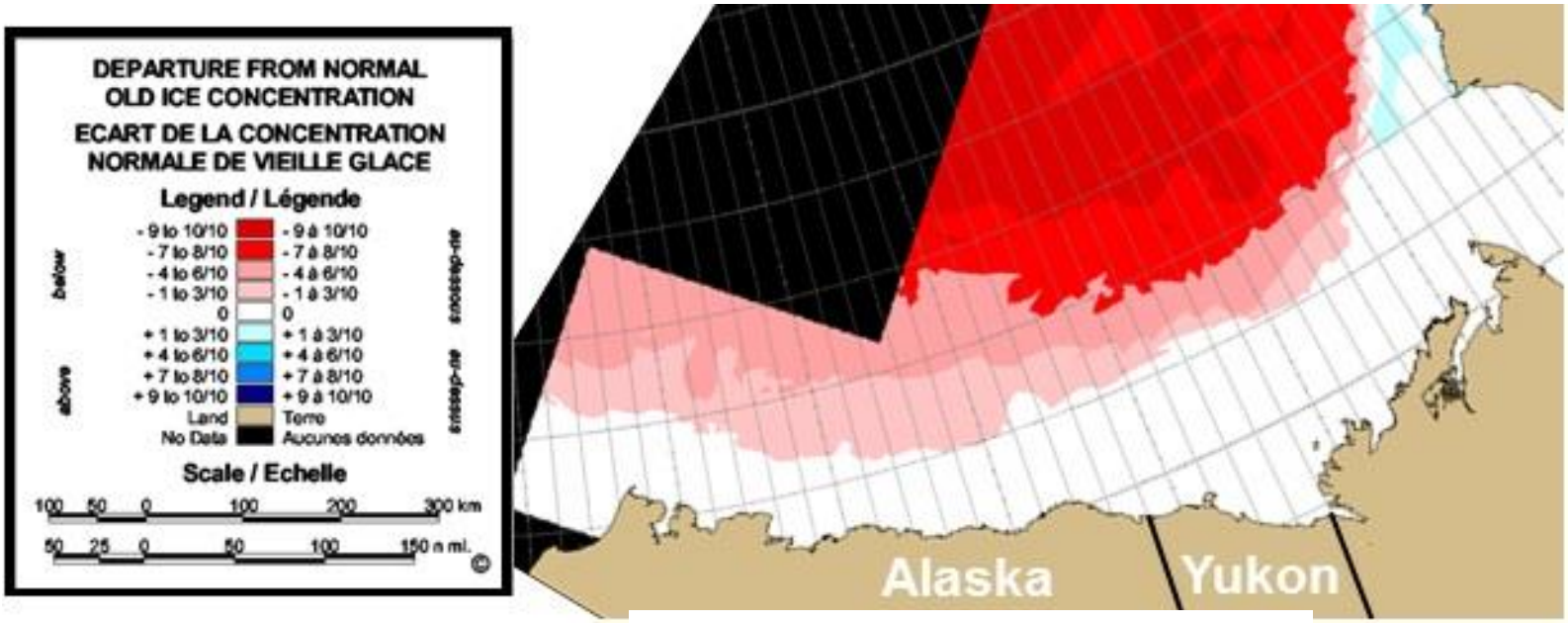
Drought Status

Continued dry conditions in the fall season resulted in increasing drought conditions across northern British Columbia, southeastern and east-central Alaska, southern Yukon Territory, and parts of the Northwest Territories (NWT). The yellow shading on the map below indicates the least severe category of drought; abnormally dry. Portions of north-central British Columbia are classified as having moderate drought conditions. Small areas along the British Columbia coast are also in the severe drought category.



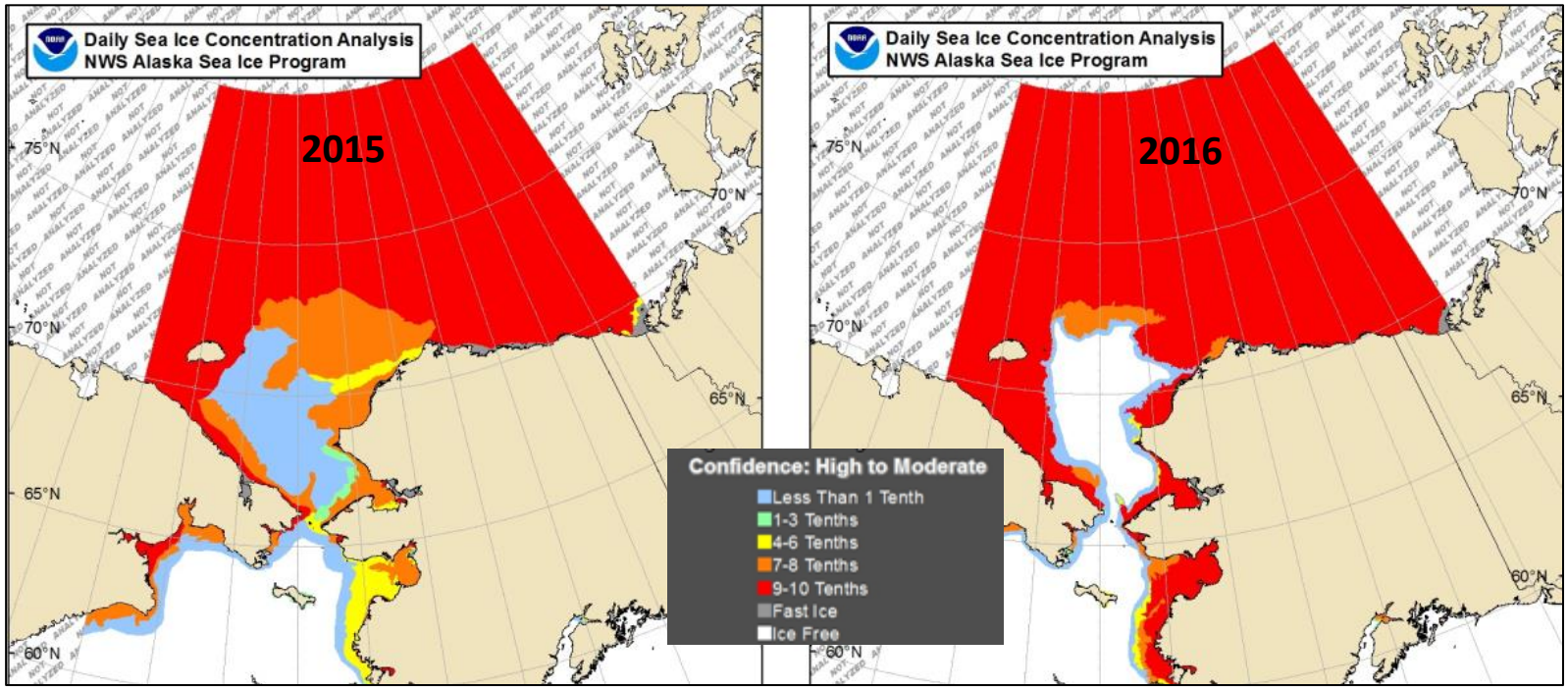
North American Drought Monitor. Drought status as of November 15, 2016.
https://www.ncdc.noaa.gov/temp-and-precip/drought/nadm/maps

Ice Concentration in the Beaufort Sea: November 2016



Source: Canadian Ice Service, Environment and Climate Change Canada

Change in Sea Ice Extent at the End of November in 2015 and 2016



Source: Anchorage National Weather Service Ice Desk

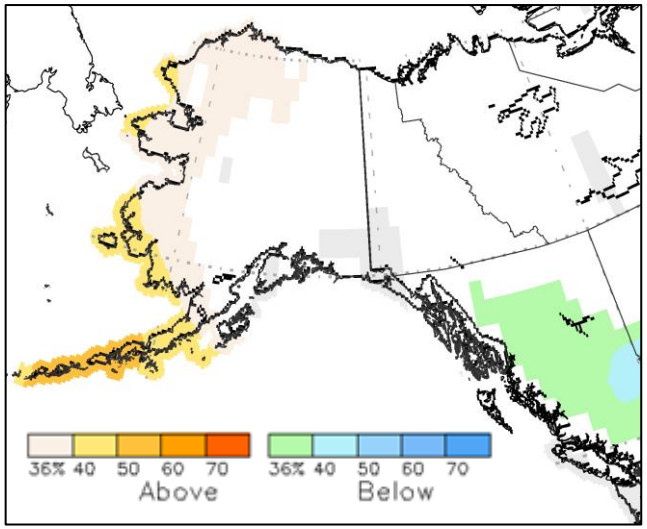
The minimum sea ice coverage in the Beaufort Sea occurred during the second week of September with only 4.9% of the basin ice covered. This is the second lowest recorded minimum ice coverage in the region since 2012. It is also well below the climate median of 40%. At the sea ice minimum, little old ice remained in the Beaufort Sea.

Through September, sea ice remained near 5 % ice cover. The new ice began to develop in early October in the northern section of the Beaufort Sea. In the first two weeks of November ice was still in low concentrations off the Alaskan Coast. This is well behind the usual freeze-up date of ice in the region. By the end of November, the Beaufort Sea was finally fully ice covered; one month behind the median date for this region.

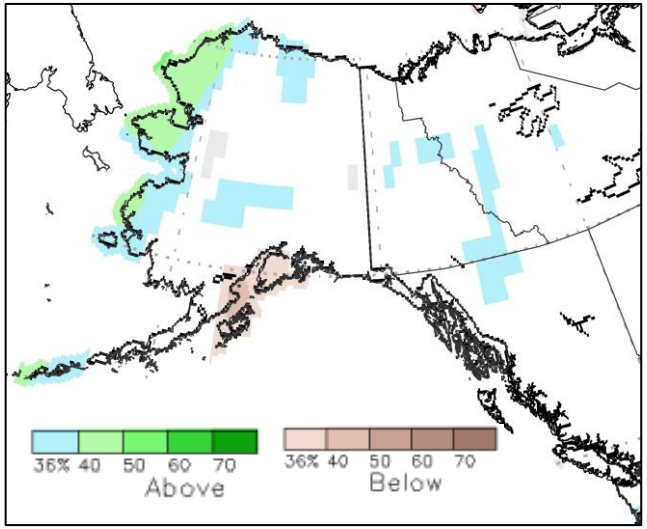
Because of the very low ice coverage in the Beaufort Sea in September, the amount of old ice present over the region at the end of November is well below the climate normal amount. This is similar to the amount seen during the lowest recorded year, 2012.

During November, sea ice filled in across the Beaufort Sea, but coverage remained unusually low in the Chukchi Sea. At the end of the month, much of the offshore Chukchi Sea from 72N south to the Bering Strait remained ice-free. This was a significant change from 2015. In 2015, there was only a little open water remaining north of 70N at the end of the month and ice was already present in the Bering Strait.

Temperature Outlook: Jan-Mar 2017



Precipitation Outlook: Jan-Mar 2017



The graphics above show the most likely of the three possible categories (significantly above normal, near normal and significantly below normal) for the three months January through March, according to the North American Multi-Model Ensemble (NMME) seasonal forecasts. They were issued on December 7, 2016. Unlike previous seasons, there is a distinct lack of above normal temperatures in the top panel. Only the western coast of Alaska is painted in the above normal category. Conversely, a large part of British Columbia is shown in the below normal temperature category. For precipitation, the northwestern coast of Alaska is in the above normal category. A few places here and there are depicted in the lightest blue color – indicating slightly greater chances of above normal precipitation. The vast majority of the region is forecasted to have near normal precipitation.
(http://www.cpc.ncep.noaa.gov/products/NMME/seasanom.shtml)

Photographs Highlighting Late Freeze-Up and Late Snowpack

Photo of an unfrozen Yukon River at Dawson, Yukon on November 23, 2016.

Photo credit: Will Fellers.

Photo of Potter Marsh in Anchorage, Alaska. Snow arrived very late in the season. Photograph taken on November 22, 2016 showing a complete lack of snow cover.

Photo credit: Brian Brettschneider.

Content and graphics prepared in partnership with the Western Region Climate Center, NOAA National Weather Service Alaska Region, and Environment and Climate Change Canada.

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