

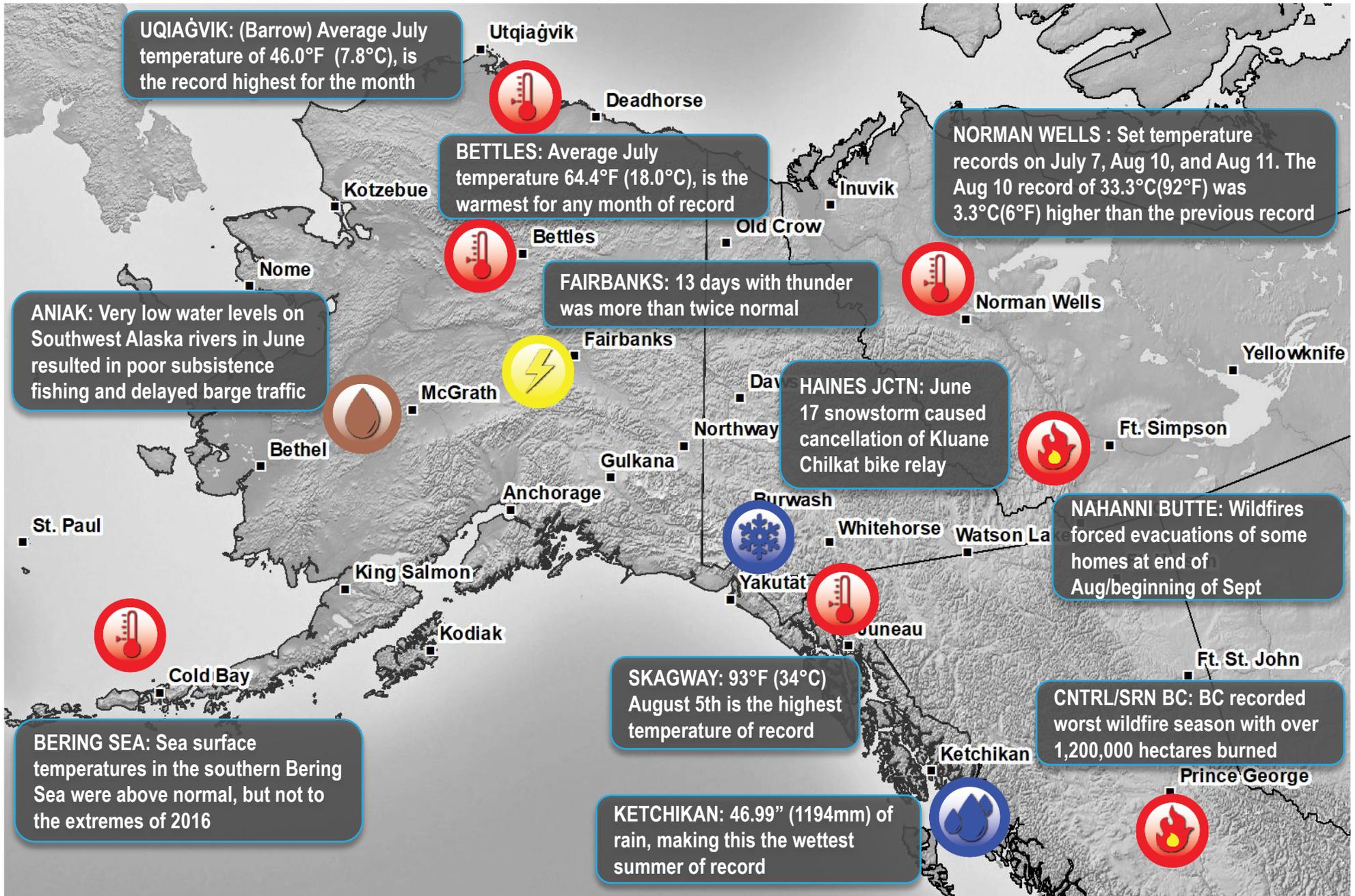
# ALASKA and NORTHWESTERN CANADA

Weather and Climate Highlights and Impacts, June - August 2017; Climate Outlook Oct. 2017 - Dec 2017

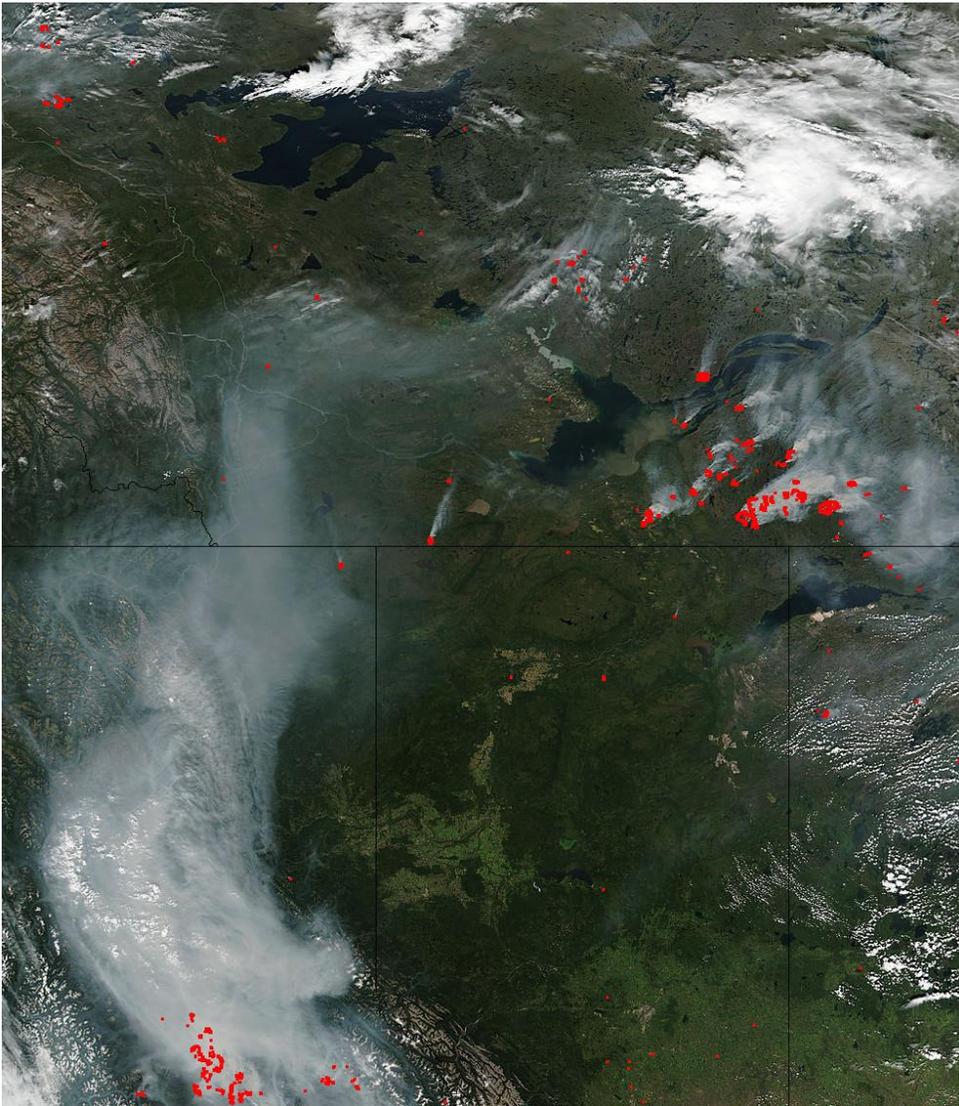


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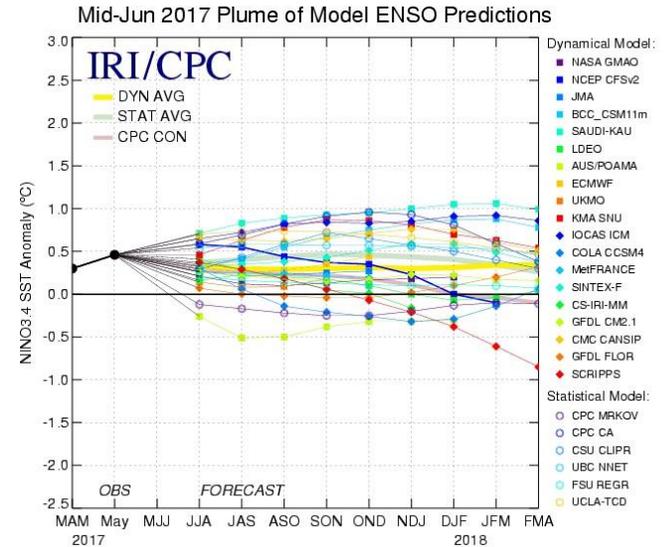






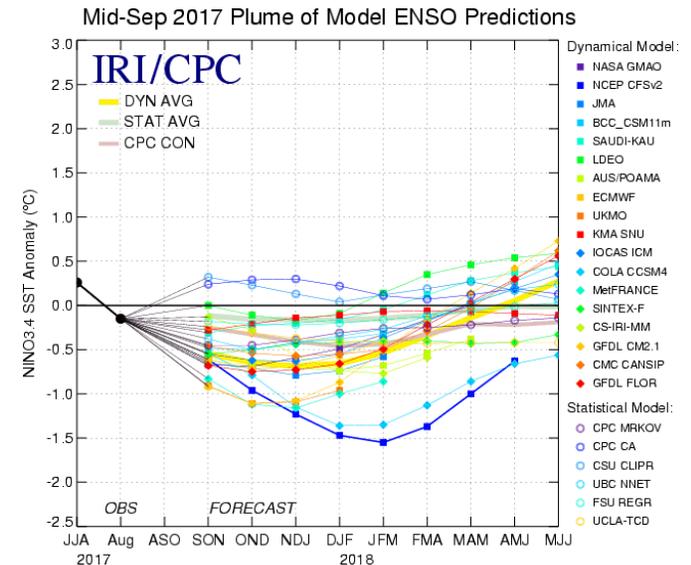
Date : August 12,2017 Source: NASA

It was an extraordinary fire season in Western Canada with the exception of Yukon (Alaska was relatively quiet too). The satellite image above (courtesy of NASA) shows fires in Northwest Territories and central British Columbia on August 12, 2017 . Thick smoke from the fires (indicated by hotspots in red) was being pushed northward by the winds. It was a record breaking fire season for British Columbia (mostly the southern and central sections) with over one half billion dollars spent on fire response and over 1.2 million hectares (3.0 million acres) burned. That is about equivalent to a square of 110 km (70 miles) on each side. Many people in the West were impacted in some way. Some were forced to evacuate with some loss of property and as this image shows, many areas, even those remote from the fires, were affected by the thick smoke.



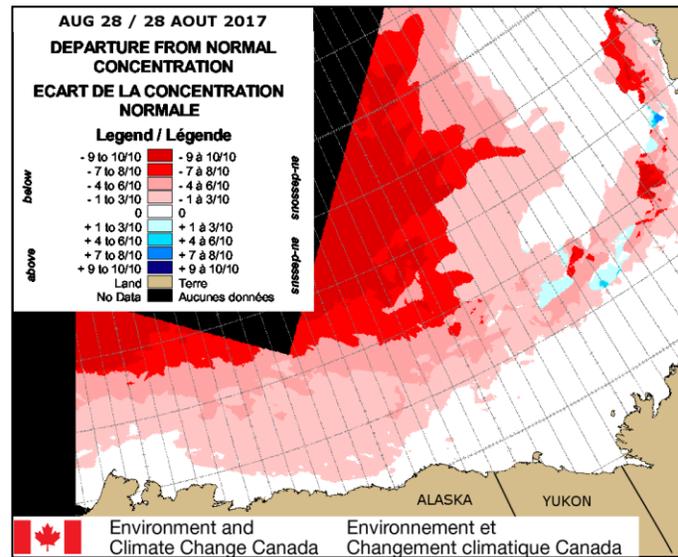
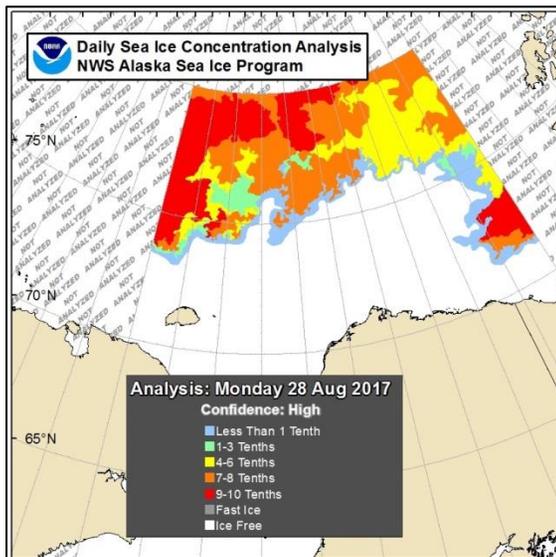
Mid-June ENSO composite forecast Source: Climate Prediction Center

Comparing the graph above from June and the one below from September it is evident that the outlook for the El Niño-Southern Oscillation (ENSO) has changed noticeably as central equatorial Pacific sea surface temperatures have cooled significantly relative to normal. Additionally, the average temperature of the upper 300 meters of the ocean is also now below normal close to the equator in the central and eastern Pacific. These developments have significantly increased the chances of La Niña this coming winter. During La Niña, tropical thunderstorms tend to remain over the far western Pacific, which in turn tends to keep the jet stream back toward to Asia. The impacts for northwest North America include an increased probability of colder than normal temperatures, and in parts of the area less precipitation than normal. The most consistent impacts tend to be during the second half of winter.



Mid-September ENSO composite forecast Source: Climate Prediction Center

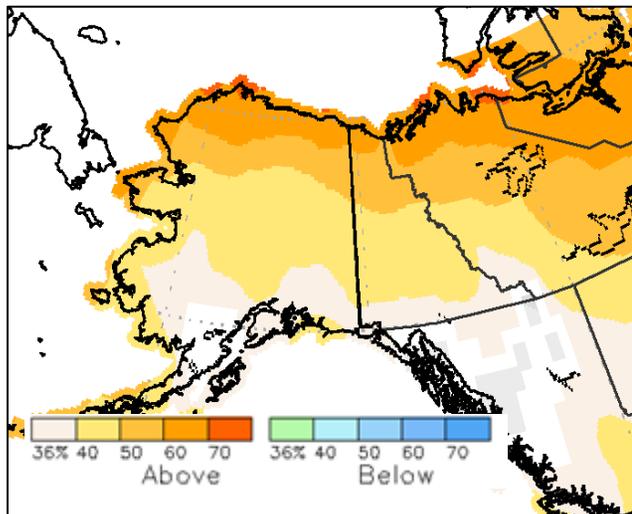
# Sea Ice Conditions at the end of August 2017 in the Beaufort and Chukchi Seas



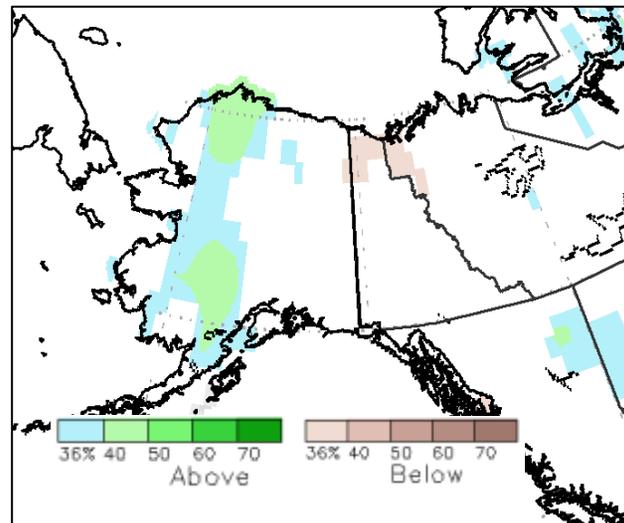
Sea ice cleared unusually early this summer in the Chukchi Sea, with open waters in the Chukchi Sea to Point Barrow by mid-July. By the end of the July the only ice that remained in Alaskan navigational waters was scattered to broken first year ice offshore of the Prudhoe Bay area, which melted out by mid-August.

Nearing the yearly minimum ice extent, a significant area of open water was observed in most of the Beaufort Sea with many large open areas that would normally have had ice (indicated in shades of red). These ice conditions reflect the lack of old ice extent that has existed since the spring. A more rapid melting of first-year ice occurred due to the lack of old ice in the area. Though the summer 2017 was another season of significant ice melt, this year will not establish a record minimum.

## Temperature Outlook: Oct - Dec 2017



## Precipitation Outlook: Oct - Dec 2017



The seasonal forecast from the North American Multi-Model Ensemble (NMME) depicts the most likely of three possible categories (significantly above normal, near normal, and significantly below normal) for precipitation and temperature. The map on the far left shows that for the October through December 2017 period, most of Alaska and northern Canada have a 40-60% chance of above normal temperatures. There are two exceptions: the extreme northern Alaska has a 70-80% chance of above normal temperatures, while northern BC has a slight chance of neutral conditions.

The precipitation outlook (map to left) for October through December 2017 shows most of the region depicted in white, meaning there is no indication of above, below, or neutral conditions (i.e. an equal chance). The exception is for a 36-50% likelihood of above normal precipitation across western Alaska, and for a slight chance of below normal precipitation in the northern Yukon.

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

ALASKA REGION PARTNERS: Western Region Climate Center, Alaska Climate Research Center, Alaska Climate Science Center, Cryosphere Today, NOAA / NWS Weather Forecast Offices, NOAA / NESDIS / NCEI, Scenarios Network for Alaska + Arctic Planning.

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