

Central Alaska Network

National Park Service
U.S. Department of the Interior

Alaska Region
Inventory & Monitoring Program



Denali NP & PRES • Wrangell-St. Elias NP & PRES • Yukon-Charley Rivers N PRES

Spring 2019

Weather & Climate Summary Yukon-Charley Rivers National Preserve Spring 2019

Yukon River in March. NPS photo.

Eagle Spring Weather 2019

It was a warm, dry spring. Spring 2019 was the warmest spring on record in Eagle, with a record warm March coming in ~18°F warmer than normal! The average spring temperature at Eagle was 36.4°F, which is +9.0°F above the 1981-2010 normal.

Total precipitation between March 1 and May 31 was only 1.06 inches, which is 61% of normal. None of that fell as snow, **only trace amounts of snow were recorded for the entire spring season in Eagle**. It was the lowest amount of spring snowfall in Eagle with almost 70 years of data!

The cumulative snowfall from July 1, 2018 through June 30, 2019 was 46 inches, normal is 63 inches (Figures 1 and 2; Table 1, 2, and 3).

March: It was the warmest March on record at Eagle and statewide. Three new daily record high temperatures were set during the last few weeks of March. There was only a trace amount of snow recorded for the month. On March 28th, 0.22 inches of precipitation was recorded and the high temperature for the day was 44°F, which implies that the precipitation that fell was rain rather than snow.

April: The average temperature for April was almost 4°F warmer than normal. The 52°F high temperature on April 2 was a new daily record. Only a trace amount of snow was recorded for April and the total precipitation (rain and melted snow) was 0.32 inches, just above normal. The snow melted out at Eagle on April 16, about two weeks earlier than normal.

May: May was also warmer than normal at 51.0°F. Precipitation was only 30% of normal with a total of 0.32 inches for all of May.

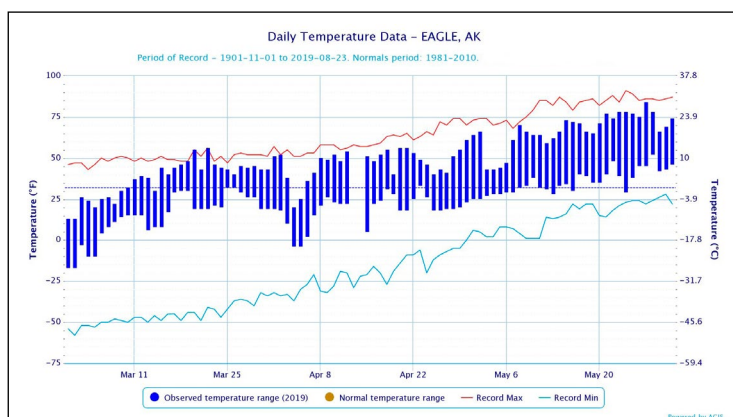


Figure 1. Spring 2019 daily temperatures at Eagle showing record maximum (red), record minimum (blue) and observed range (blue bars).

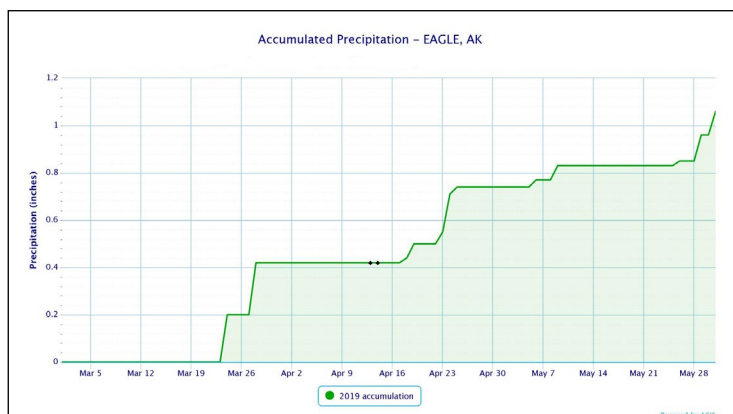


Figure 2. Spring 2019 accumulated precipitation at Eagle (green).

Table 1. Temperature: Spring 2019 average monthly temperatures compared to the 1981-2010 normal.

Spring* 2019	Average Monthly Temp (°F)	1981-2010 Normal (°F)	Departure from Normal (°F)	Monthly High (°F / Date)	Monthly Low (°F / Date)
March**	25.5	7.2	+18.3	***56 / Mar 22	-17 / Mar 1, 2
April	32.7	28.9	+3.8	61 / Apr 30	-4 / Apr 4, 5
May	51	46.1	+4.9	84 / May 27	25 / May 1,2

Spring Season Temperature Departure from Normal: +9.0°F; *Warmest spring on record; **Warmest March on record; ***Record daily high.

Table 2. Precipitation: Spring 2019 monthly precipitation totals compared to normal.

Spring 2019	Total Monthly Precip. (in.)	1981-2010 Normal (in.)	Departure from Normal (in.)	Greatest 24 -hr. total (in. / Date)	# Days with >=0.01 in. water
March	0.42	0.38	+0.04	0.22 / Mar 28	2
April	0.32	0.26	+0.06	0.16 / Apr 24	5
May	0.32	1.10	-0.78	0.11 / May 29	5

Spring Season Precipitation Departure from Normal: -0.68 inches (61% of normal).

Table 3. Snowfall: Spring 2019 monthly snowfall totals compared to normal.

Spring 2019	Total Monthly Snowfall (in.)	1981-2010 Normal (in.)	Departure from Normal (in.)	Greatest 24-hr snowfall total (in. / Date)	Cumulative snowfall since 1-July in.
March	0.0	6.1	-6.1	T	46.0
April	0.0	3.1	-3.1	T	46.0
May	0.0	1.0	-1.0	T	46.0

State of the Climate - Spring 2019

The recent increase in Alaska temperatures is alarming. Each of the last 5 years is among the warmest (Figure 3). Alaska is breaking temperature records left and right; this spring March 2019 ranked as record warmest over most of the state (Figure 4). A major factor influencing Alaska temperatures is the warmer than normal ocean temperatures off the coast of Alaska. As a result of the warmer waters and persistent southerly storm tracks, sea ice extent around Alaska reached record low extents in spring 2019 (Figure 5).

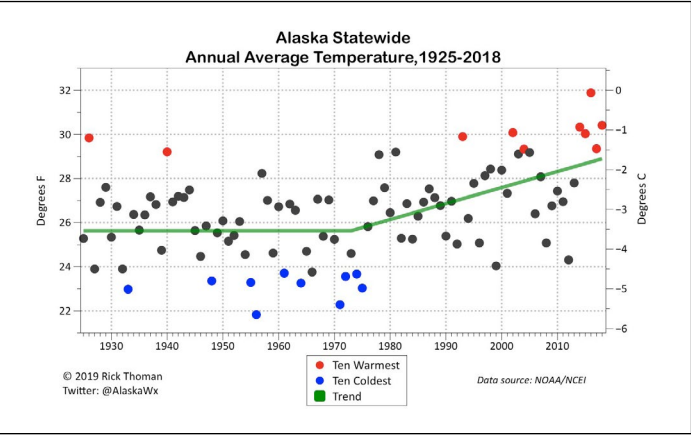


Figure 3. Alaska statewide temperatures. Graph courtesy of Rick Thoman ACCAP (<https://uaf-accap.org/>).

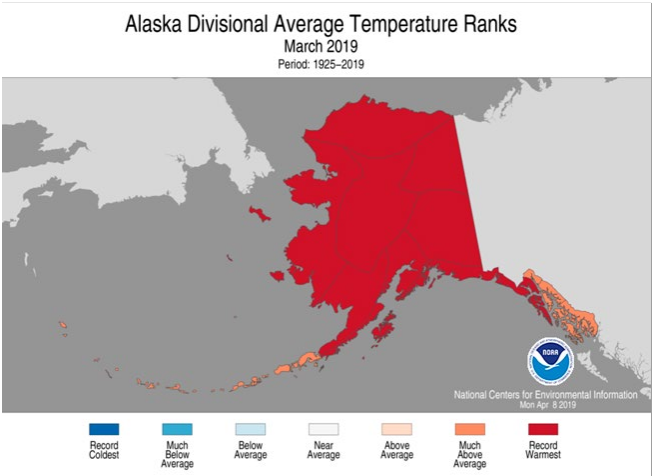


Figure 4. March 2019 ranked as warmest on record for most of Alaska. <https://www.ncdc.noaa.gov/cag/>

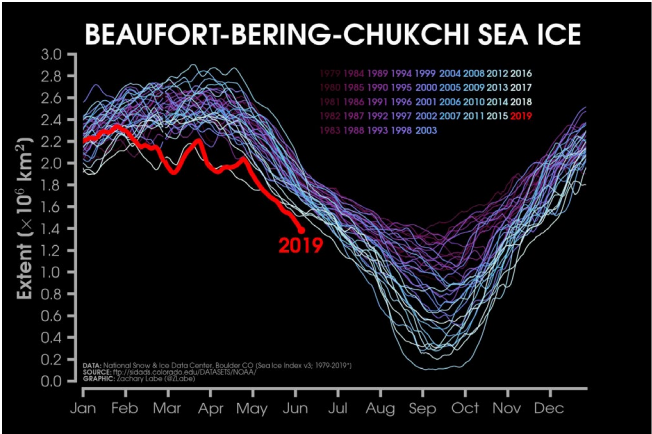


Figure 5. Sea ice extent around Alaska has been at or near record lows for 2019. Graph courtesy of Zach Labe (@ZLabe).

Warm Spring in Yukon-Charley Rivers

Spring temperatures were the warmest on record at the climate stations inside the Preserve. At the Upper Charley site the average spring temperature is normally ~25°F, this spring it was ~32°F (Figure 6).

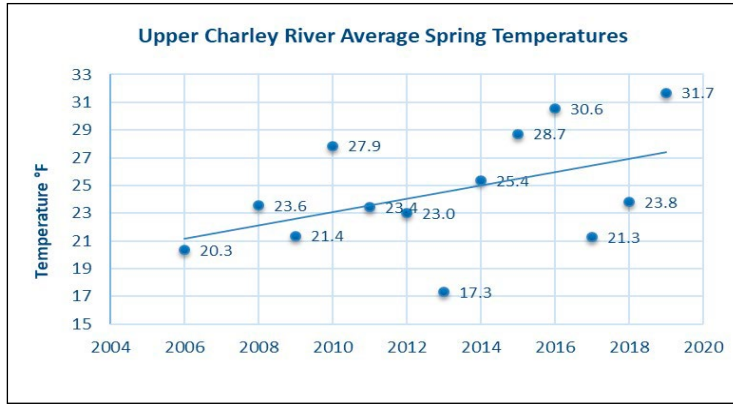


Figure 6. Average spring temperatures at the Upper Charley climate station in Yukon-Charley Rivers National Preserve.

The average March temperature at the Coal Creek site was 25.2°F, by far the warmest March since 2005, and 10°F warmer than the previous warmest March (2016).

The Coal Creek snow course had 10 inches of snow on April 1, the lowest on record for that site (Figure 7). The melt-out date at the climate station nearby was April 19, the earliest since 2005 and about 11 days earlier than the average melt-out date.

The breakup date for the ice on the Yukon River at Eagle was May 1, three days earlier than average (Figure 8).



Figure 7. Snow course near Coal Creek Camp, YUCH. NPS photo.



Figure 8. Yukon River at Eagle on May 2, 2019. NPS photo, Randy Smith.

More Information

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Current Weather in YUCH

<https://www.nps.gov/im/cakn/index.htm>

Data disclaimer: Please note that the near-real time data used to generate these reports is subject to change. QA/QC data from the NPS CAKN climate stations are available at [NPS Data Store](#)

