

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/Summer 2020

Weather & Climate Summary Denali National Park & Preserve Spring/Summer 2020

A summer vista from Polychrome Pass, Denali National Park and Preserve. NPS Photo.

Denali Spring/Summer Weather 2020

Spring

Overall, spring was slightly cooler and much snowier than normal. The average temperature was 27.6°F, just -0.4°F below the 1981-2010 normal. It was the 3rd snowiest spring season at Denali Park HQ with a total of 42.5 inches. March snowfall accounted for 92% of the spring total. Total spring precipitation (melted snow and rain) was 3.96 inches, 239% of normal.

It was a cold and snowy March. The average monthly temperature was 4°F colder than normal and an incredible 38.9 inches of snow fell during the month. April temperatures started out cooler than normal and then warmed a bit toward the end of the month. The average temperature for April came in right at normal at 27.9°F. An additional 3.6 inches of snow fell during the month. May was warmer than normal and a bit drier than normal. There were only 5 days with measurable precipitation in May, and more than half of the monthly total of 0.72 inches fell on May 26th with 0.44 inches. The melt-out date at park headquarters was May 12, right at normal.

Table 1. Temperature: Spring/Summer 2020 average monthly temperatures compared to the 1981-2010 normal.

Spring/Summer 2020	Average Monthly Temp (°F)	1981-2010 Normal (°F)	Departure from Normal (°F)
March	9.4	13.4	-4.0
April	27.9	27.9	0.0
May	45.5	42.8	+2.7
June	51.6	52.8	-1.2
July	54.8	55.6	-0.8
August	52.1	50.6	+1.5

Spring Temperature Departure from normal: -0.4°F

Summer Temperature Departure from normal: -0.2°F

Summer

The average summer temperature was just below normal at 52.8°F and the summer rainfall total was just above normal at 10.01 inches.

June was chilly and wet. More than twice as much rain as normal fell during June; it was the 6th wettest June on record with 4.69 inches. Three days of 'solstice rains' added 1.91 inches between June 21-23. The average monthly temperature was 1.2°F cooler than normal with no daily temperature >70°F. July was cooler than normal and was (also) lacking in very warm days. The highest temperature for July was 73°F, one of the lowest on record (the 8th lowest maximum in 92 years). August was warmer than normal and slightly drier than normal. Interestingly, the highest temperatures of the 2020 'summer' season (75°F) occurred in both May and August, usually it would be in June or July. See Table 1 and 2; Figure 1 and 2.

Table 2. Precipitation: Spring/Summer 2020 monthly precipitation totals compared to normal.

Spring/Summer 2020	Total Monthly Precip. (in.)	1981-2010 Normal (in.)	Departure from Normal (in.)
March	2.72	0.39	+2.33
April	0.52	0.40	+0.12
May	0.72	0.87	-0.15
June	4.69	2.15	+2.54
July	2.81	3.22	-0.41
August	2.51	2.71	-0.20

Spring Precipitation Departure from normal: +2.30 in. (239%)

Summer Precipitation Departure from normal: +1.93 in. (124%)

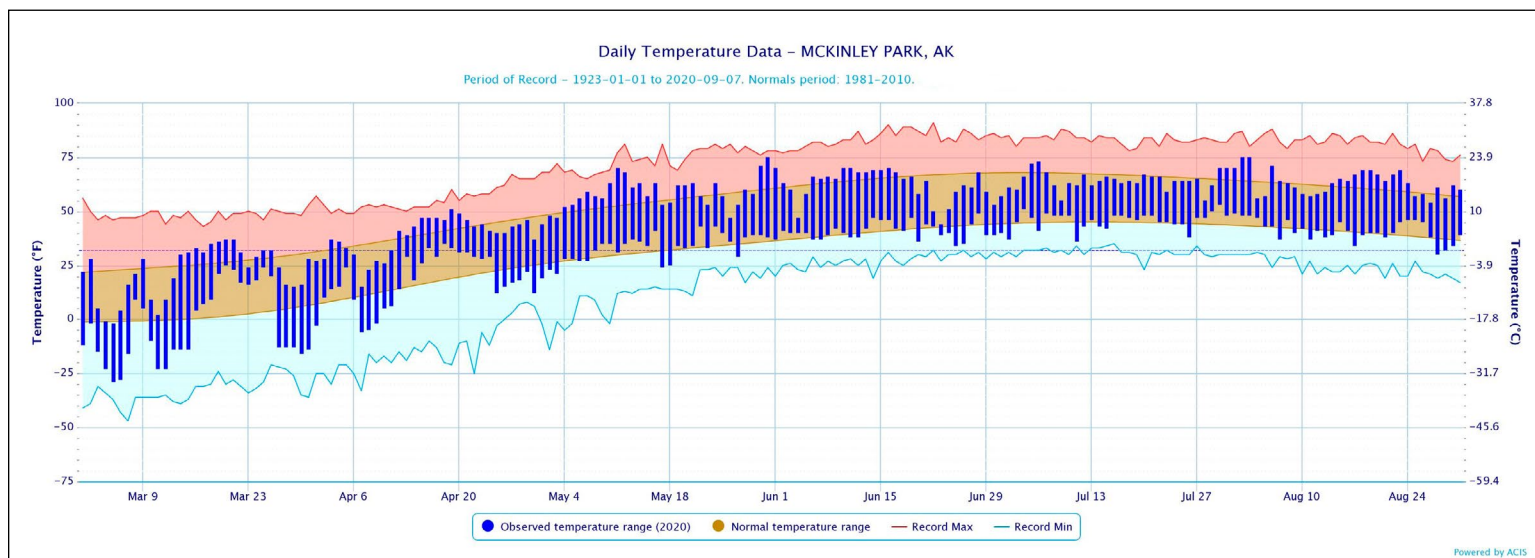


Figure 1. Spring/Summer 2020 daily temperatures at Denali showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

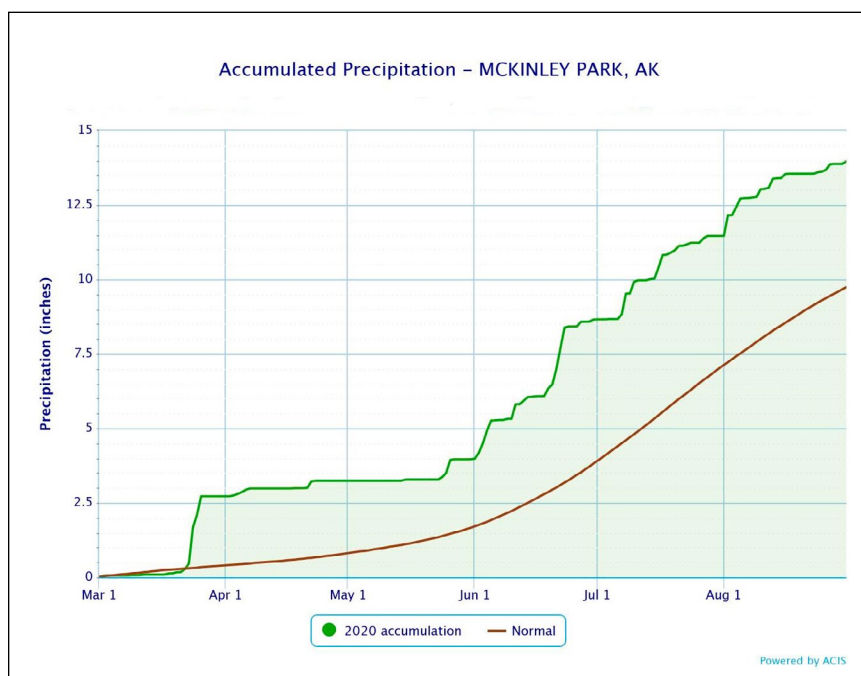


Figure 2. Spring/Summer 2020 accumulated precipitation at Denali Park HQ (green) compared to normal (brown line).



Enjoying the trails at Eielson Visitor Center. NPS Photo.

Abundant March Snowfall

March 2020 ranked as the 2nd snowiest March on record with 32 inches more snow than normal (Figure 3). Spring 2020 ended with a total of 42.5 inches after another 3.6 inches of snow fell in April making it the 3rd snowiest spring on record. Overall, the cumulative snowfall for the season (July 1 through June 30) was 104.3 inches, the 14th snowiest season at Denali Park headquarters with records dating back to 1926.

Top 3 snowiest March months on record:

- 41.2 inches in 1967
- 38.9 inches in 2020
- 36.9 inches in 1962



Figure 3. The snow piles up at park headquarters in March 2020. NPS photo courtesy of Erika Jostad.

Record Rainfall in Western Denali

Figure 4 shows the summer (June through August) total precipitation percent of 1981-2010 normal across Alaska, the blue dots indicate wetter locations. Interior Alaska and Southeast Alaska were wetter than normal with some of the wettest spots in Denali, while the north and west coast was dry. The conditions seemed favorable for blueberries in the interior (Figure 5).

An incredible 5.35 inches of rain fell over a 24-hour period on August 2 at the McKinley River remote automated weather station (RAWS) ~25 miles northwest of Wonder Lake. This is the highest reliable 24-hour rainfall total north of the Alaska Range ever! The previous record was 4.58 inches at Clear in 1967. That same day in 1967 McKinley Park headquarters had 3.28 inches. The 1967 rain event was more widespread and was responsible for the great interior flood that caused significant damage in Fairbanks and other interior communities.

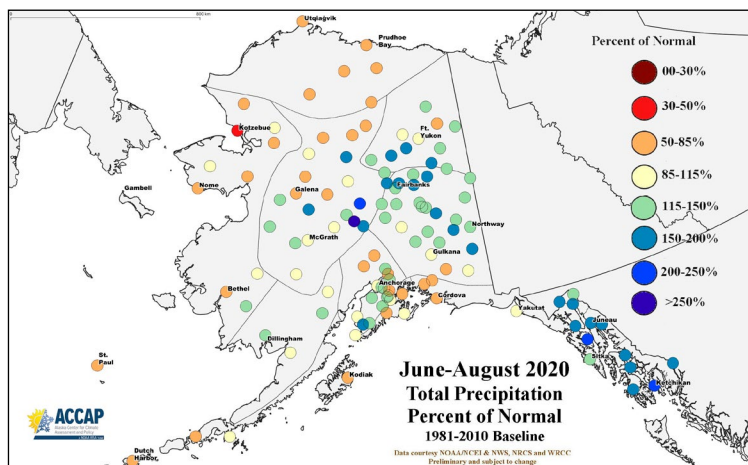


Figure 4. Summer 2020 precipitation across Alaska. Graph courtesy of ACCAP <https://uaf-accap.org/>.



Figure 5. Wonder Lake blueberries.



View near Eielson Visitor Center. NPS Photo.

Cooler Summer Temperatures

The average summer temperature at Eielson Visitor Center was 48.0°F, almost a degree cooler than the 15-year average (2006-2020) and the coolest it has been since 2012. Chilly in comparison to last year when the summer season was 4°F warmer (Figure 6).

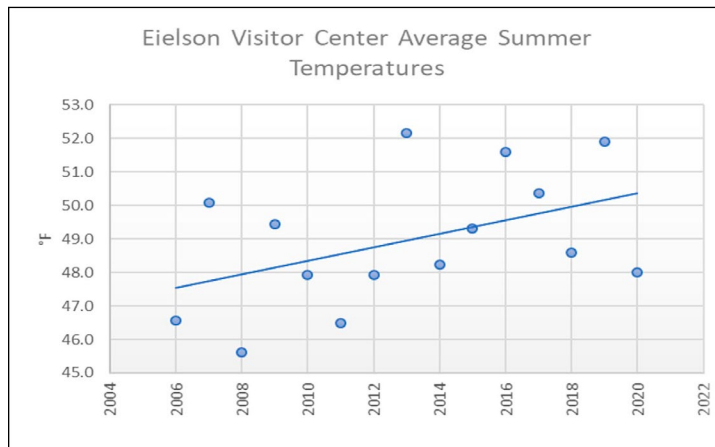
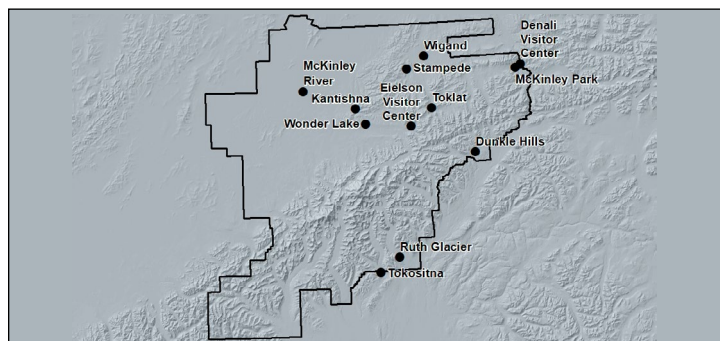


Figure 6. Average summer temperatures for Eielson Visitor Center 2006-2020.



Climate stations in Denali NP&Pres.

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Current Weather in Denali

<https://www.nps.gov/im/cakn/climate.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](#)