



Bering Land Bridge N Pres. • Cape Krusenstern NM
Gates of the Arctic NP & Pres. • Kobuk Valley NP • Noatak N Pres.

Summer 2019

Weather & Climate Summary Gates of the Arctic National Park & Preserve Summer 2019



Climate station maintenance. NPS photo, Seth Adams.

Bettles Summer Weather 2019

Summer 2019 was the 6th warmest summer in Bettles since records began in 1949. June and July were both much warmer than normal, whereas August was just below average. The average temperature for the summer season was 59.1°F, which is 2.2°F above normal. Total summer precipitation was 5.90 inches, 92% of normal. July was dry (48% of normal) and August was wet (135% of normal) (Figures 1 and 2; Tables 1 and 2).

June was warmer than normal nearly every day of the month. The high temperature for the month was 86°F on June 28th, a record for that day. High temperatures in the 80s are rare, but this occurred on five separate days in June. Overall, it was the 3rd warmest June on record. June saw 1.22 inches of rainfall, compared to a normal total of 1.40 inches. On June 5 a total of 0.56 inches of rain was recorded, the wettest day of the month. Measureable rainfall occurred on 10 days in June, which is about normal.

The average temperature for July was 63.7°F, which is +4.0°F warmer than normal and the 3rd warmest July on record. For the first time since 1999, Bettles reached the 90°F mark on July 10. Daily records were broken each day for July 7-10. Total precipitation for July was 1.13 inches, only 48% of normal and the driest July of the decade.

August was cooler and wetter than normal for the third consecutive year. However, unlike the last two years which had persistent August rain, this year almost all of the rain came during the first half of the month. Overall, August precipitation was 135% of normal. The average temperature for August was 52.1°F just below the normal monthly temperature of 52.5°F.

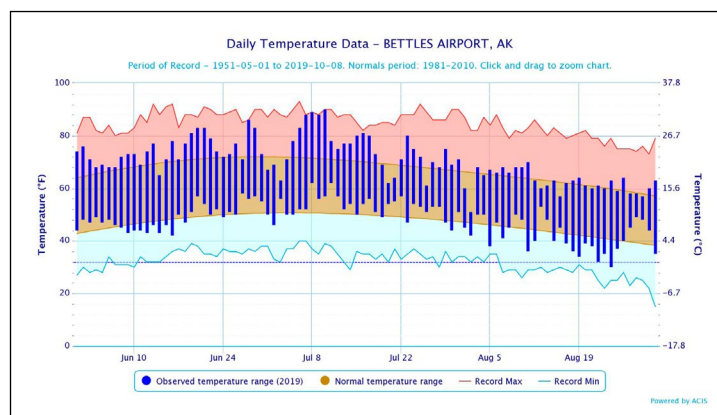


Figure 1. Summer 2019 daily temperatures at Bettles showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

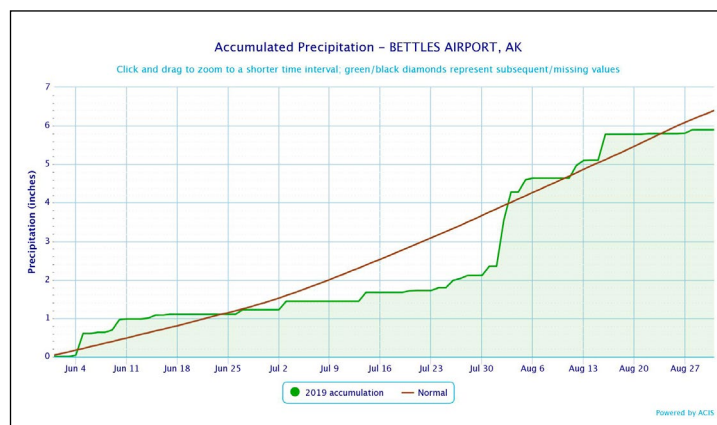


Figure 2. Summer 2019 accumulated precipitation (green) at Bettles compared to normal (brown line).

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

Summer 2019	Average Monthly Temp (°F)	1981-2010 Normal (°F)	Departure from Normal (°F)	Monthly High (°F / Date)	Monthly Low (°F / Date)
June	61.5	58.5	+3.0	86* / June 28	42 / June 16
July	63.7	59.7	+4.0	90* / July 10	44 / July 30
August	52.1	52.5	-0.4	70 / Aug. 11	30 / Aug. 24

Summer Season Temperature Departure from Normal: +2.2°F. *Daily record temperature.

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

Summer 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
June	1.22	1.40	-0.18	0.56 / June 5	10
July	1.14	2.36	-1.23	0.25 / July 31	8
August	3.55	2.64	+0.91	1.20* / Aug. 2	11

Summer Season Precipitation Departure from Normal: -0.50 inches (92% of normal). *Daily record high.

Summer Temperatures in GAAR and Across the State

The four climate stations in GAAR have been running continuously since 2013. Among the stations, Pamichtuk Lake (3135 feet) is typically the warmest in summer, followed by Chimney Lake (3692 feet), Ram Creek (4107 feet), and Killik Pass (4360 feet) (Figure 3). For this short record, 2018 was the coolest summer at most sites. The largest change in the last 7 years has occurred at Killik Pass, where the average summer temperature has varied from as low as 36.8°F in 2013 to as high as 44.9°F in 2019.

For the state of Alaska as a whole, 2019 was the second warmest summer on record since 1925. It was the warmest July on record for the state. The warming trend is strongest for the North Slope, where July temperatures have increased 3.8°F since 1969 (Figure 4).

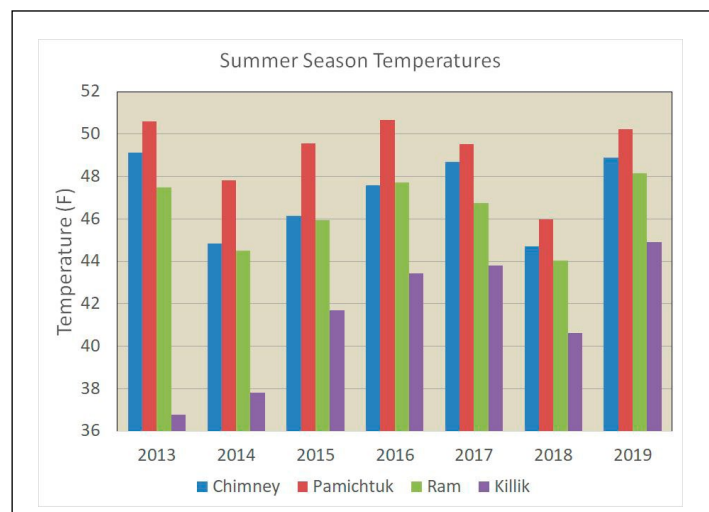


Figure 3. Summer temperatures at NPS climate stations in GAAR 2013-2019.

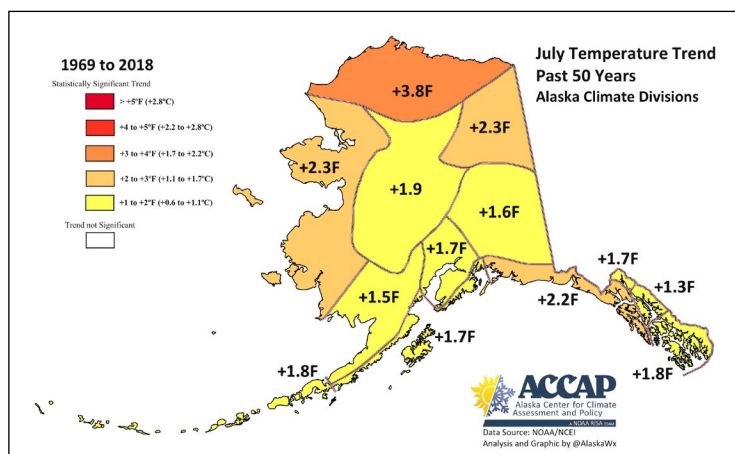


Figure 4. July temperature trends in Alaska 1969-2018. Graphic courtesy of ACCAP.

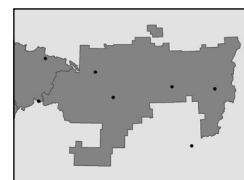
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[Current Weather in Gates of the Arctic](#)

<https://www.nps.gov/im/arcn/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 CANK climate stations are available at [NPS Data Store](#)