



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

Summer 2024

Weather & Climate Summary Gates of the Arctic National Park & Preserve Summer 2024

Killik River rainbow – Gates of the Arctic National Park and Preserve. NPS photo/Christopher Houlette.

Bettles Summer Weather 2024

Overall, summer was warmer and wetter than normal in Bettles. Weather highlights for the season include a warm June followed by cooler temperatures in July and August. The average temperature for the 2024 summer season was 57.9°F, which is 0.9°F warmer than the 1991-2020 normal. Summer rainfall totaled 10.34 inches, 159% of normal. July and August were much wetter than normal with several record high daily precipitation events (Table 1 and 2, Figures 1 and 2). Overall, it was the 4th wettest summer on record going back to 1951.

June

June was warm and dry. The average temperature for the month was 4.5°F warmer than normal at 63.1°F. It was the second warmest June on record. On June 27 the high temperature reached 86°F a new record for that day. There were 20 days in June with daily high temperatures at or above 75°F – easily a record for all Junes going back to 1951. June was on the dry side. The total precipitation for June was 1.19 inches, 82% of normal. On average, June is the driest month of the summer.

July

July was cooler than normal and much wetter than normal. The average monthly temperature was 1.3°F cooler than normal at 58.5°F. The first few days were warm, but after that it was cool and rainy. Mid-July was much cooler than normal, with daily low temperatures mostly in the 40s and 50s. On July 16 the low temperature was 36°F, 10 degrees cooler than normal and just shy of a record for that day. Temperatures climbed after that with highs reaching above 80°F between July 22-25, with a record daily high of 86°F on July 24. July was wet with 4.39 inches of rain falling during the month, which is 189% of normal. It was the third wettest July on record. On July 27 a total of 1.48 inches was recorded over a 24-hour period, a daily record.

August

August was slightly cooler than normal with continued wetter than normal conditions. The monthly average temperature was -0.6°F cooler than normal at 52.1°F. The first week of the month was warmer than normal with the temperature on August 5 approaching a record high. After that the temperatures moderated and remained in the near normal to slightly below normal range for the rest of the month. August is the wettest month of the year in Bettles with a normal monthly total of 2.71 inches. This August 4.76 inches of rain fell during the month, which is 176% of normal and the 5th wettest August on record. There were two days that broke records for 24-hour rainfall totals: August 16 with 0.94 inches and August 18 with 1.37 inches.

Table 1. Bettles summer 2024 average monthly temperatures compared to the 1991-2020 normal.

Summer 2024	Average Monthly Temp (°F)	1991-2020 Normal (°F)	Departure from Normal (°F)
June	63.1	58.6	+4.5
July	58.5	59.8	-1.3
August	52.1	52.7	-0.6

Summer temperature departure from normal: +0.9°F

Table 2. Bettles summer 2024 monthly precipitation totals compared to normal

Summer 2024	Total Monthly Precip. (in.)	1991-2020 Normal (in.)	Departure from Normal (in.)
June	1.19	1.46	-0.27
July	4.39	2.32	+2.07
August	4.76	2.71	+2.05

Summer precipitation departure from normal: +3.85 in. (159% of normal).

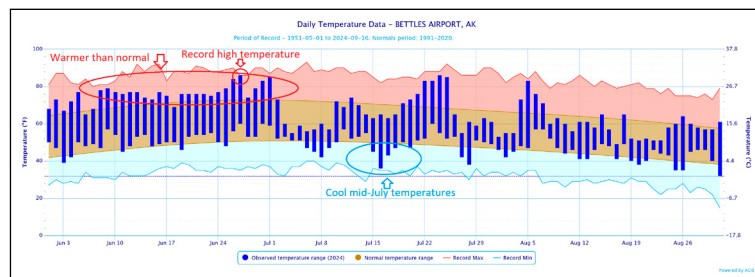


Figure 1. Summer 2024 daily temperatures at Bettles showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars). Data from: <http://xmacis.rcc-acis.org/>

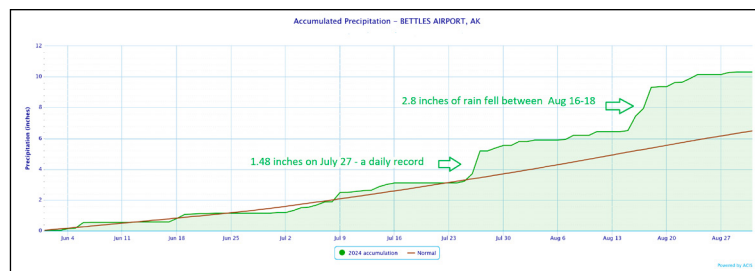


Figure 2. Summer 2024 accumulated precipitation at Bettles (green) compared to normal (brown line). Data from: <http://xmacis.rcc-acis.org/>

Warm, Wet Summer in Gates of the Arctic

Rainy July and August

It was a wet summer across Gates of the Arctic National Park and Preserve with the June through August rainfall ranking among the top ten wettest summers on record since 1940. The graphic below (Figure 3) shows the statewide precipitation ranking with dark blue shading equal to the wettest summer on record and dark greens in the top 10. Notice how almost all of northwest Alaska was much wetter than normal this past summer.

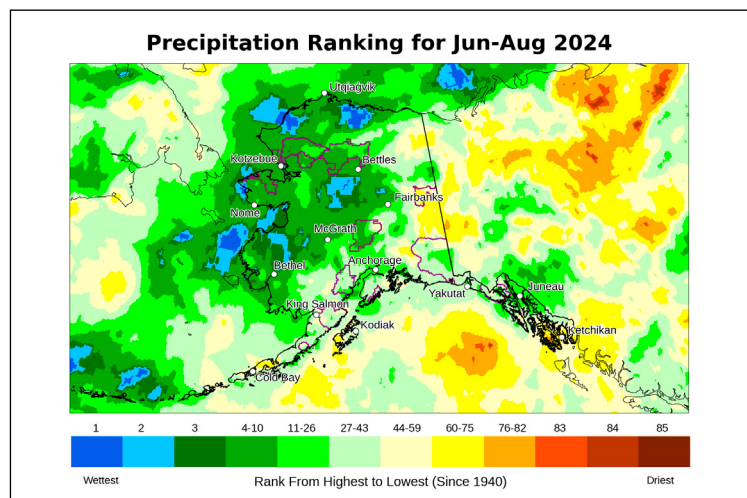


Figure 3. Statewide precipitation ranking map for June - August 2024 (back to 1940). Map courtesy of Brian Brettschneider using ERA5 reanalysis data. Dark blue shading indicates the wettest summer on record.

At the Dahl Creek SNOTEL station where we measure daily precipitation (and snow) it was a wet summer. Although this is only the second summer on record, the summer rainfall totals are impressive. The total rain accumulation for July was 11 inches and for August 10.9 inches. It rained more than twice as much at Dahl Creek than at Bettles for both July and August.

An impressive 3.4 inches of rain was recorded on July 4. After early July the rain was persistent until the end of August (Figure 4- black line). This summer a total of 23.5 inches fell between June 1 and August 31.

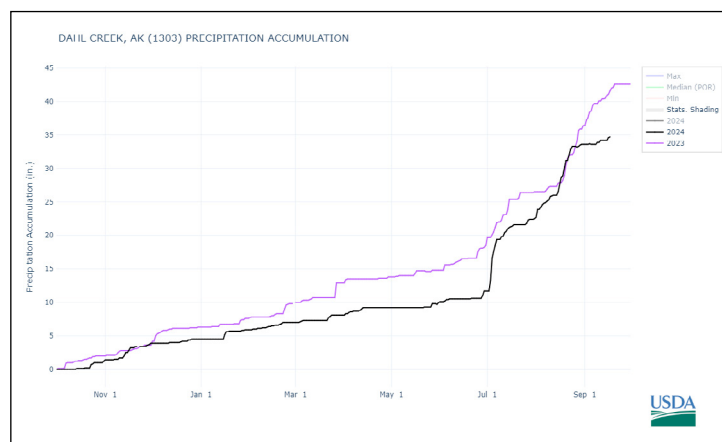


Figure 4. Precipitation accumulation at the Dahl Creek SNOTEL site for 2024 (black line) and 2023 (purple line) by water year (Oct. 1 - Sep. 30).

Warm June, Cool July and August

It was a warm June in Gates of the Arctic according to the data from our climate stations (Figure 5). The average temperature was between 4° and 5°F warmer than average at these sites in June. July and August were much cooler than average. Overall, the summer season temperatures were slightly cooler than average. [Click here](#) to get the current weather conditions for Gates of the Arctic National Park and Preserve.



Figure 5. Arctic Inventory and Monitoring Network climate stations in Gates of the Arctic National Park and Preserve.

More Information

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