

Arctic Network

National Park Service
U.S. Department of the Interior

Alaska Region
Inventory & Monitoring Program



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

Summer 2017

Weather & Climate Summary Western Arctic Parklands Summer 2017

Kotzebue Summer Weather

It was the 10th warmest summer on record in Kotzebue with a seasonal average temperature of 52.9°F, which is 2.2°F warmer than normal. The precipitation total for the summer was near normal with a total of 4.38 inches. A wet July tilted the summer total to just above normal. June and August were both drier than normal.

June 2017 was the 6th warmest on record following 2016 as the 5th warmest and 2015 as the 4th warmest. The mean monthly temperature was 51.1°F. Normal is 45.7°F. Temperatures were the warmest during the beginning of the month, with a new daily high set on June 4th at 73°F. The high temperature for the month, and for the summer, was 78°F on June 7 (record high for June 7th is 79°F). Precipitation was light in June; 0.20 inches of rain fell during the month, normal is 0.58 inches.

July was warmer and wetter than normal. The average monthly temperature of 57.5°F was 2.9°F warmer than the 1981-2010 normal. Mid-July was the warmest period with a high temperature of 74°F on July 14. Precipitation for the month was well above normal with 2.63 inches, 181% of normal. The most significant rain event was on July 25 with 0.96 inches of rain recorded for the day.

August temperatures cooled off and the rain tapered off from July. The average temperature for the month was 50.0°F, 1.7°F cooler than normal. During the second half of August almost all of the daily temperatures were below normal. The precipitation total for the month was 1.55 inches, which is 71% of normal. On average, August is the

Summer blooms near Kaluich Creek, Noatak National Preserve, photo by Ken Hill.

wettest month in Kotzebue, but this year July was wetter. (Figures 1 and 2; Tables 1 and 2).

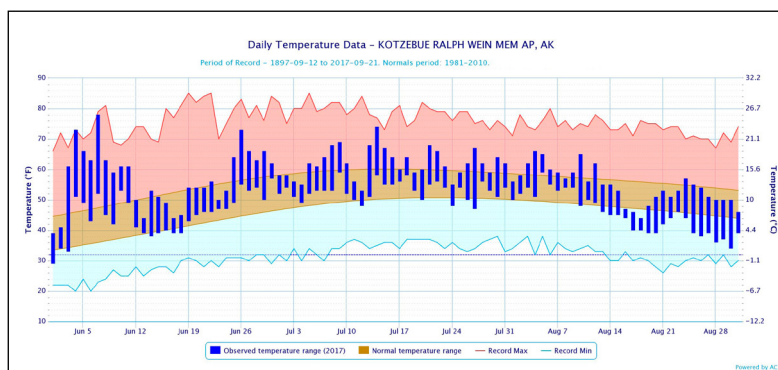


Figure 1. Summer 2017 daily temperatures at Kotzebue showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

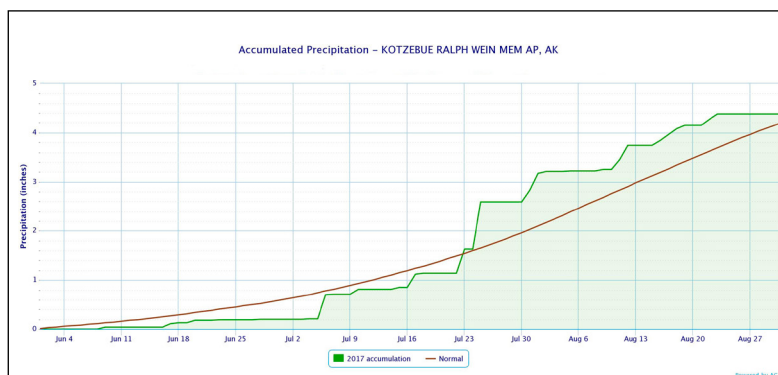


Figure 2. Summer 2017 accumulated precipitation at Kotzebue (green) compared to normal (brown line).

Table 1. Kotzebue Temperature: Summer 2017 average monthly temperatures compared to the 1981-2010 normal.

Summer 2017	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
June	51.1	45.7	+5.4	78 / Jun 7	29 / Jun 1
July	57.5	54.6	+2.9	74 / Jul 14	47 / Jul 27
August	50.0	51.7	-1.7	66 / Aug 4	34 / Aug 30

Summer Season Temperature Departure from Normal: +2.2°F

Table 2. Kotzebue Precipitation: Summer 2017 monthly precipitation totals compared to normal.

Summer 2017	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	0.20	0.58	-0.38	0.07 / Jun 17	6
July	2.63	1.45	+1.18	0.96 / Jul 25	10
August	1.55	2.18	-0.63	0.34 / Aug 1	12

Summer Season Precipitation Departure from Normal: +0.17 inches (104% of normal)

Climate Monitoring in the Western Arctic Parklands

NPS climate stations in the Western Arctic Parklands complement the long-term record from the National Weather Service station in Kotzebue. NPS stations are located at Tahinichok and Mt. Noak in Cape Krusenstern, at Asik, Kugururok, Sisiak, Kaluich, Imelyak, and Howard Pass in Noatak, and at Salmon River in Kobuk Valley (Figure 3).



Figure 3. NPS Climate stations in Western Arctic Parklands.

Summer Temperatures in eastern Noatak

Figure 4 shows the monthly summer temperatures for 2017 at three of the NPS stations in eastern Noatak. The Imelyak site is up high in the Schwatka Mountains of the Brooks Range at 3,620'; the summer temperatures are coolest at this site. The Noatak RAWS, in the wide Noatak River Valley near the confluence of Makpik Creek, has the warmest summer temperatures of the three sites (Figure 5). The Howard Pass site, located in the Howard Hills and a gateway to the North Slope, is a mid-elevation site (just above 2,000') that is much cooler than the valley floor and warmer than Imelyak which is ~1600' higher in elevation.

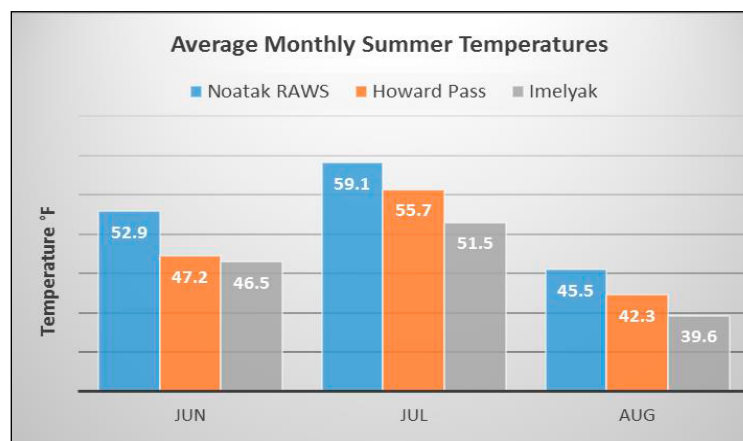


Figure 4. 2017 summer temperatures in eastern Noatak.

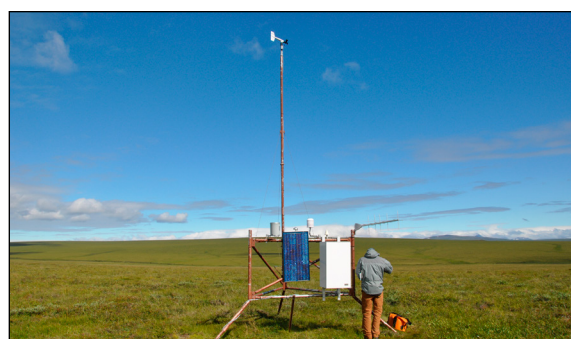


Figure 5. Noatak RAWS near Makpik Creek.

More Information

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