

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.

2nd Quarter Spring 2016

Weather & Climate Summary Denali National Park & Preserve Spring 2016

Fang Mountain covered in winter rime. NPS Photo Ken Hill

Denali Spring Weather

March was warmer than normal in Denali. The average temperature for March was 20.4°F compared to a normal of 13.4°F. The low temperature for the month was -10.0°F on both March 18 & 19. The end of March was particularly warm, with daily highs above freezing on each of the last ten days of the month. The defining spring snowfall event occurred March 16-20, with 10 inches of snow over the 5-day period. 6.1 inches of snowfall was recorded on the 20th, a record for the date. With 83.3 inches of snowfall since July 2015, cumulative snowfall was 125% of normal at the end of March. Total precipitation (water equivalent) was 197% of normal for the month.

The warmth persisted into April, with temperatures well above normal throughout the month. Daily high records were tied or broken on April 2, 3, 6, 22, and 25. The average temperature for the month was 37.3°F compared to a normal monthly mean of 27.9°F. Overall it was the warmest April since 1940, and the second warmest April on record. It was a very dry April with only a trace of total snow for the month, normally April snowfall totals average ~6 inches. Monthly precipitation totaled only 0.01 inches; normal is 0.40 inches.

With a monthly mean temperature of 45.1°F, the month of May was 2.3°F warmer than normal. Record high temperatures of 74°F and 75°F were recorded on May 14 and 15 respectively. The last freeze was May 26. May turned out to be very rainy, with 1.51 inches of precipitation for the month. Normal is 0.87 inches.

The average spring temperature at Denali was 34.3°F which is 6.3°F warmer than the 1981-2010 normal. It was the 2nd warmest spring season on record (1926-2016) and the warmest spring since 1926. The total spring precipitation was 2.29 inches, 138% of normal. Snowfall was a rollercoaster this year, with fall 2015 being the 4th snowiest

fall season on record. The winter season, however, was the least snowy on record with only 6.3 inches of snow. 12.5 inches of snow was recorded this spring. Normal is 16.0 inches. Overall, the snow season ended up at 83.4 inches since July, 109% of normal. (Figures 1 and 2; Table 1, 2, and 3).

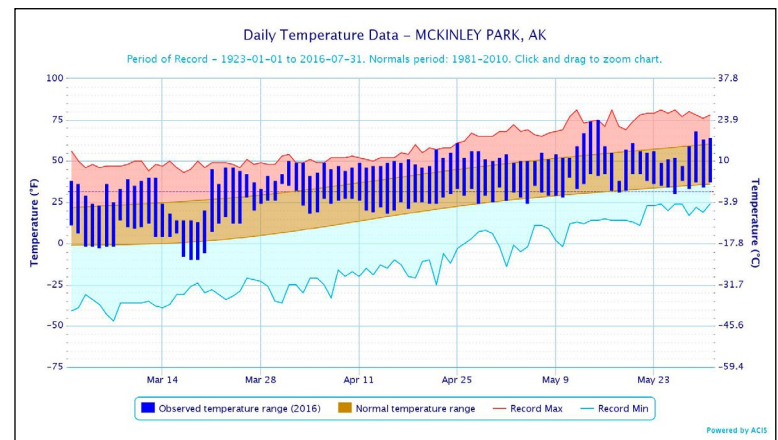


Figure 1. Spring 2016 daily temperatures at Denali showing **record maximum** (red), **record minimum** (blue), **normal** (brown) and **observed** range (blue bars).

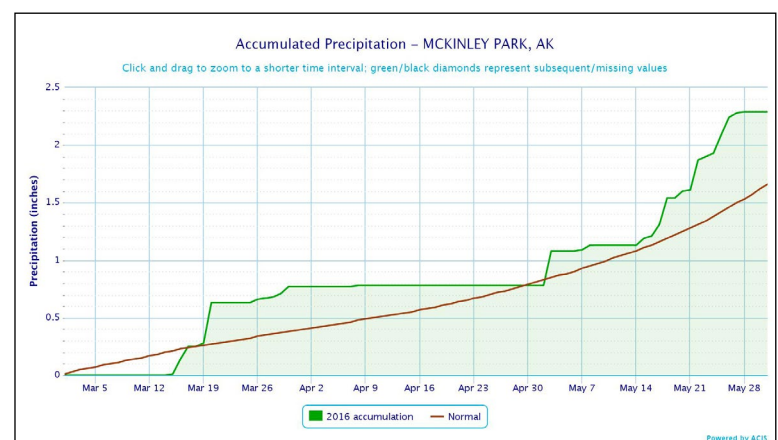


Figure 2. Spring **2016** accumulated precipitation at Denali compared to **normal** (brown line).

Table 1. Temperature: Spring 2016 average monthly temperatures compared to the 1981-2010 normal.

Spring 2016	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
March	20.4	13.4	+7.0	46 / March 23 & 24	-10 / March 18 & 19
April	37.3	27.9	+9.4	61 / April 25	18 / April 4 & 18
May	45.1	42.8	+2.3	*75 / May 14 & 15	24 / May 5

*Record daily highs; Spring Season Temperature Departure from Normal: +6.3°F

Table 2. Precipitation: Spring 2016 monthly precipitation totals compared to normal.

Spring 2016	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	0.77	0.39	+0.38	0.35 / March 20	10
April	0.01	0.40	-0.39	0.01 / April 8	1
May	1.51	0.87	+0.64	0.30 / May 3	16

Spring Season Precipitation Departure from Normal: +0.63 inches (138% of normal)

Table 3. Snowfall: Spring 2016 monthly snowfall totals compared to normal.

Spring 2016	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	12.4	6.8	+5.6	6.1 / March 20	83.3
April	Trace	6.1	-6.1	Trace / April 2 & 8	83.3
May	0.1	3.1	-3.0	0.1 / May 17	83.4

NPS Climate Monitoring in Denali National Park and Preserve

NPS climate stations in Denali complement the long-term record available from the National Weather Service station at park headquarters (Figure 3).

Featured Station: Ruth Glacier

The Ruth Glacier station sits on the southern flanks of the Tokosha Mountains just west of the terminus of the Ruth Glacier in the Alaska Range at an elevation of 3300' (Figure 4). It is an alpine site within the transitional maritime climate region influenced by the moisture and warmth of the Pacific Ocean. The temperatures are cool in summer and relatively warm in the winter. The site gets abundant snowfall and summer rain. The period of record mean annual air temperature is 31.0°F. The total summer rainfall on average is 17.93 inches. Maximum snow depth

is typically in April with depths from 3 to 5 feet. The highest temperature recorded since the station was installed in 2008 is 82.9°F on 6/26/2013 and the lowest is -16.4°F on 1/27/2013.



Figure 4. Ruth Glacier climate station, Denali National Park & Preserve.

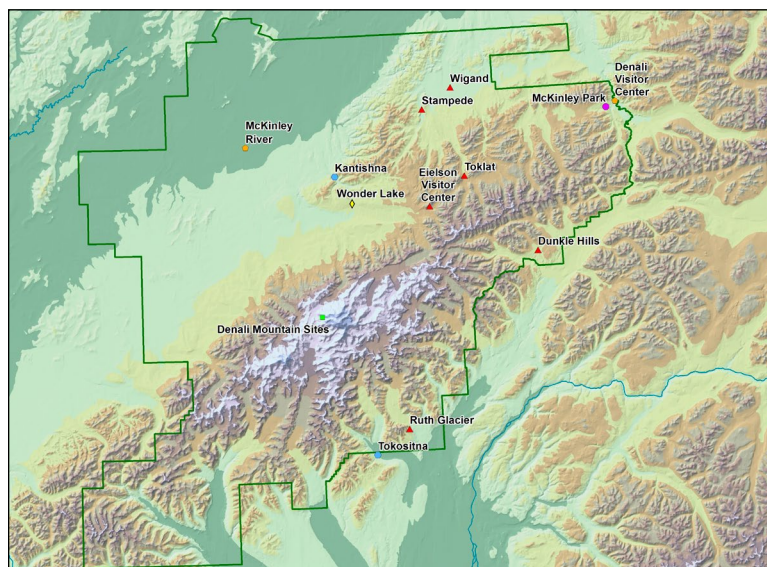


Figure 3. NPS stations in Denali National Park & Preserve.

More Information

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[Current Weather in Denali](#)