



Weather & Climate Summary Denali National Park & Preserve Spring 2017

Denali Spring Weather

March was colder than normal in Denali. It was the 6th coldest March on record (1926-2017; months with ≤ 5 days of missing data, $n=87$). The average temperature for March was -0.8°F compared to a normal of 13.4°F . Every day of the month, except for March 29, was colder than normal. Ten days of the month had average temperatures that were more than 20°F colder than normal. A record low temperature of -30°F was recorded on March 18. It was relatively dry in March with half as much snowfall as normal. A total of 3.3 inches of snow fell during the month. The water equivalent of the snow was 0.20 inches, which is 51% of normal.

April temperatures were warmer than normal, with temperatures above normal throughout most of the month. The average temperature was 32.4°F , which is 4.5°F above normal. It was a dry April with only 0.8 inches of total snow for the month; normally April snowfall totals average ~ 6 inches. Monthly precipitation totaled only 0.07 inches; normal is 0.40 inches.

With a monthly mean temperature of 42.6°F , the month of May was just below the normal of 42.8°F . The temperatures were between 4°F and 8°F cooler than normal for the last week of May. May was wetter than normal with 1.19 inches of precipitation for the month, normal is 0.87 inches. Most of that fell as rain; the only snowfall, all 0.5 inches, was recorded on May 25. The last date of continuous snow cover for the season was May 7th.

Overall, the average spring temperature at Denali was 24.7°F , which is -3.3°F cooler than the 1981-2010 normal. It ranks an unremarkable 18th in terms of cool spring seasons. The total spring precipitation was 1.46 inches, 88% of normal. The

2016-2017 snow season (July 1- May 31) ended with a total of 71.3 inches, which is 93% of normal (Figures 1 and 2; Table 1, 2, and 3).

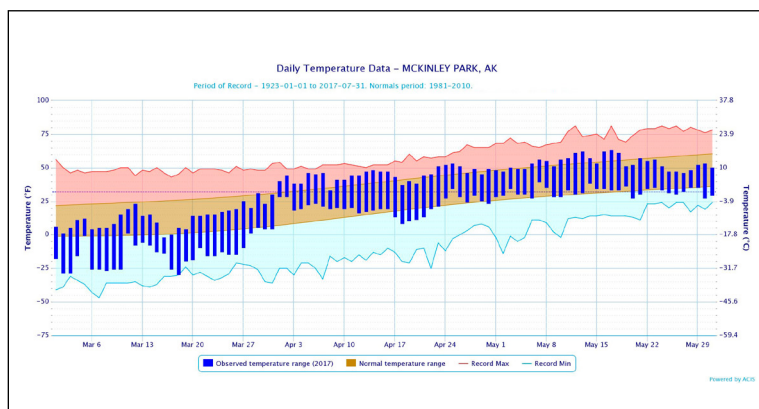


Figure 1. Spring 2017 daily temperatures at Denali showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

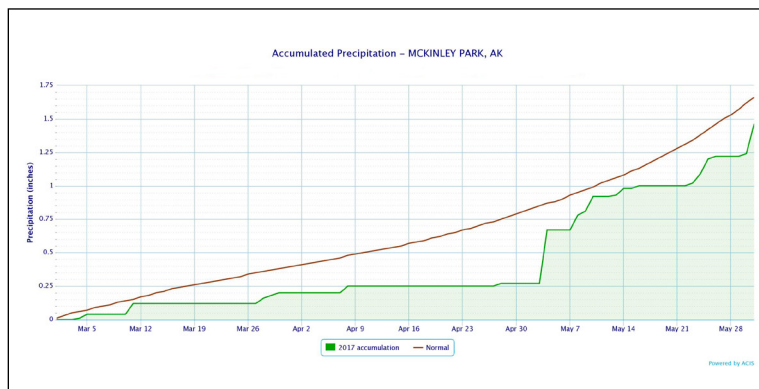


Figure 2. Spring 2017 accumulated precipitation at Denali (green) compared to normal (brown line).

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

Spring 2017	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
March	-0.8	13.4	-14.2	31 / Mar 29	-30* / Mar 18
April	32.4	27.9	+4.5	53 / Apr 25	8 / Apr 18
May	42.6	42.8	-0.2	63 / May 17	27 / May 6, 20, 30

Spring Season Temperature Departure from Normal: -3.3°F; *Record daily low

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

Spring 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
March	0.20	0.39	-0.19	0.08 / Mar 11	6
April	0.07	0.40	-0.33	0.05 / Apr 8	2
May	1.19	0.87	+0.32	0.40 / May 4	13

Spring Season Departure from Normal: -0.20 inches (88% of normal)

Table 3. Snowfall: Spring 2017 monthly snowfall totals compared to normal.

Spring 2017	Total Monthly Snowfall in.	1981-2010 Normal in.	Departure from Normal in.	Greatest 24 -hr. snow-fall total in. / Date	Cumulative snowfall since 1-July in.
March	3.3	6.8	-3.5	1.0 / Mar 28	70
April	0.8	6.1	-5.3	0.8 / Apr 8	70.8
May	0.5	3.1	-2.6	0.5 / May 25	71.3

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).

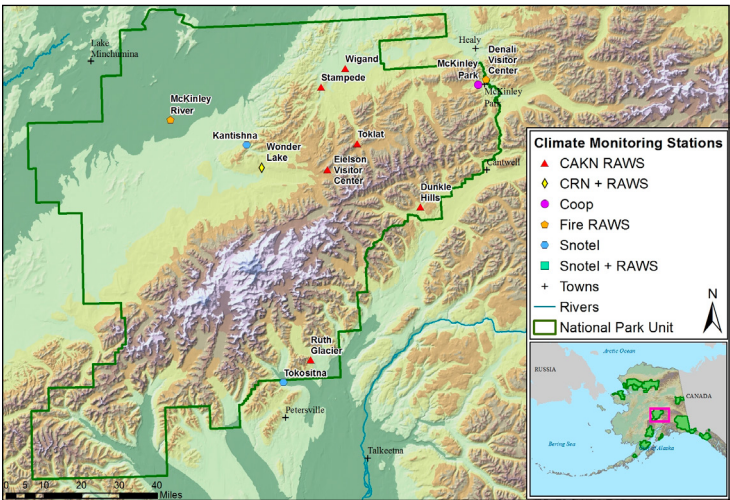


Figure 3. Map of climate stations in Denali.

Featured Station: Dunkle Hills

The Dunkle Hills station sits above treeline on the south side of the Alaska Range in rolling hills just south of Broad Pass at an elevation of 2,651 feet. Temperatures are moderated by the proximity to the North Pacific Ocean. Temperatures are cool in the summer and relatively warm in the winter, typical of a transitional maritime climate. Figure 4 shows the snow depth over the past 12 winter seasons. To date the deepest and most persistent seasonal snowpacks have been in the 2012-2013 and 2015-2016 seasons. The date of first persistent snow cover at

this site, over the relatively short period of record, is ~ October 18, while the melt-out date is ~ May 15.

In 2016-2017, there was little snow accumulation through the fall and early winter until about mid-January. The snowpack melted out on May 5, 2017, which is the second earliest melt-out date over the past 12 years (in 2010 the melt-out date was on May 4th). There is no trend in the melt-out date at this site over the past 12 years.

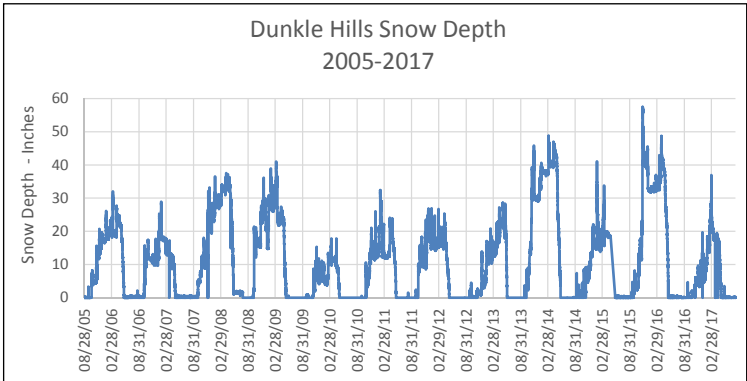


Figure 4. Snow Depth at Dunkle Hills 2005-2017.

More Information

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[Current Weather in Denali](#)