



Weather & Climate Summary Denali National Park & Preserve Fall 2017

Denali Fall Weather 2017

September was warmer and drier than normal. The average monthly temperature of 43.2°F was 2.8°F warmer than normal. The high temperature for the month was 61°F, which occurred on the 9th and the low temperature of 21°F was recorded on September 30th. The total precipitation (water equivalent) for September was 1.59 inches, which is 93% of normal. An inch of snow was recorded on the 29th.

October was warmer than normal with an average temperature of 29.4°F compared to a normal temperature of 22.9°F. The first two weeks of the month were a mix of rain and wet snow. There was measurable precipitation on 18 out of 31 days of the month totaling 1.76 inches of water, 226% of normal. It was the 7th wettest October on record. Total snowfall for the month was 15.2 inches compared to a normal total of 9.9 inches.

November was snowier than normal with above normal temperatures. The average temperature for the month was 1.2°F warmer than normal at 10.1°F. Total precipitation was 30.2 inches of snowfall containing 1.71 inches of water equivalent. Normal snowfall is 13.2 inches and the month ended up as the 7th snowiest November on record.

Overall, fall of 2017 was 3.5°F warmer than normal and the 17th warmest fall on record. A total of 5.06 inches of precipitation (liquid equivalent) fell over the three month period, 157% of normal and the 6th wettest on record. (Figures 1 and 2; Tables 1, 2, and 3) .

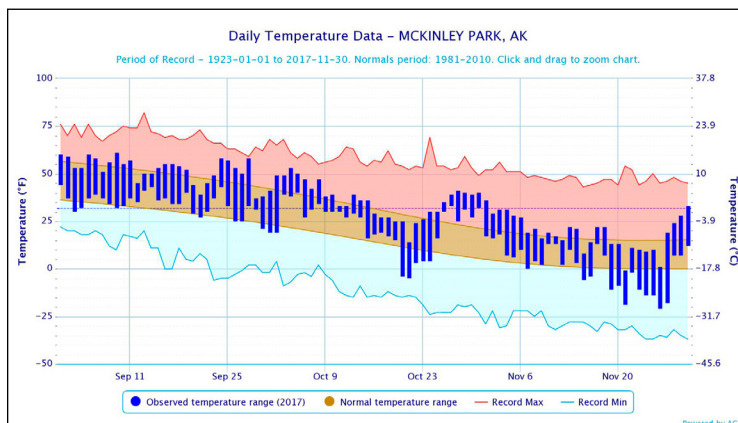


Figure 1. Fall 2017 daily temperatures at Denali showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

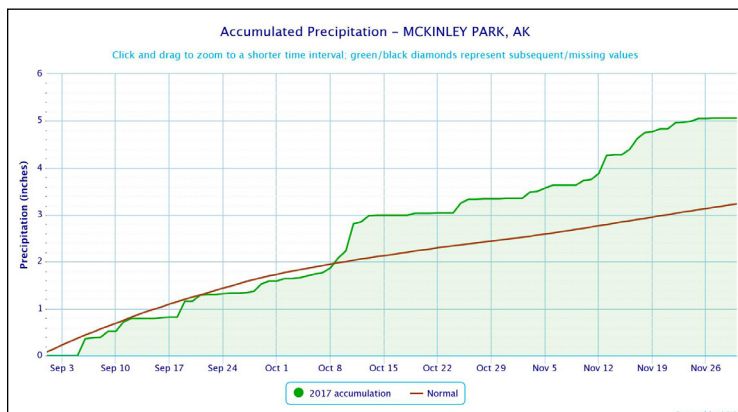


Figure 2. Fall 2017 accumulated precipitation at Denali (green) compared to normal (brown line).

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

Fall 2017	Average Monthly Temp (°F)	1981-2010 Normal (°F)	Departure from Normal (°F)	Monthly High (°F / Date)	Monthly Low (°F / Date)
September	43.2	40.4	+2.8	61 / Sept. 9	21 / Sept. 30
October	29.4	22.9	+6.5	53 / Oct. 4	-5 / Oct. 21
November	10.1	8.9	+1.2	36 / Nov. 1	-21 / Nov. 26

Fall Season Temperature Departure from Normal: + 3.5 °F

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

Fall 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
September	1.59	1.70	-0.11	0.36 / Sept. 6	17
October	1.76	0.78	+0.98	0.58 / Oct. 11	18
November	1.71	0.75	+0.96	0.38 / Nov. 13	19

Fall Season Precipitation Departure from Normal: +1.83 inches (157% of normal)

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

Fall 2017	Total Monthly Snowfall (in.)	1981-2010 Normal (in.)	Departure from Normal (in.)	Greatest 24-hr snow-fall total (in. / Date)	Seasonal Cumulative Snowfall (in.)
September	1.0	4.7	-3.7	1.0 / Sept. 29	1.0
October	15.2	9.9	+5.3	3.7 / Oct. 25	16.2
November	30.2	13.2	+17.0	6.5 / Nov. 13	46.4

Climate Monitoring in Denali

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

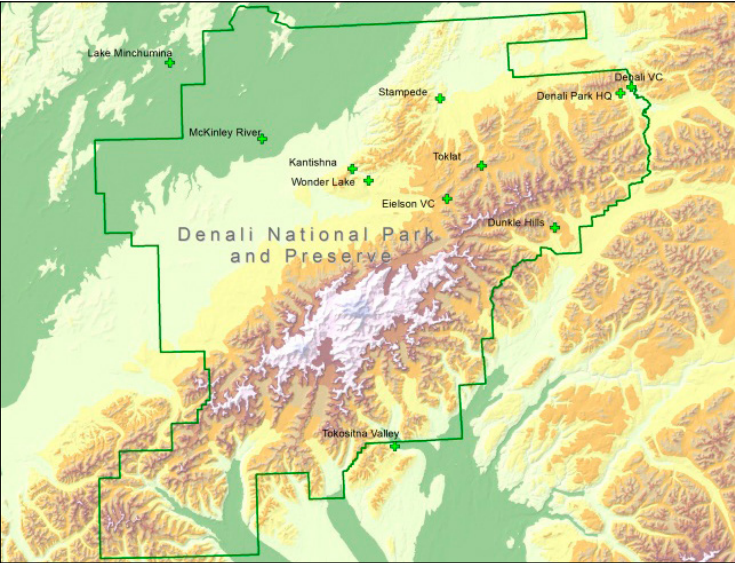


Figure 3. NPS climate stations in Denali National Park & Preserve.

Featured Station: Kantishna SNOTEL

The Kantishna SNOTEL station was installed in 2006 near the Denali Backcountry Lodge (Figure4). The station records temperature, year-round precipitation, snow depth, and snow water equivalent. Hourly values are transmitted and archived through the Natural Resources Conservation Service SNOTEL network (Figure 5). In winter, National Park Service staff complete aerial and/or ground surveys to validate the automated snow measurements from the station.

Fall 2017 at Kantishna was the second wettest on record since 2006, with 8.4 inches of precipitation recorded for the 3-month period. Compared to the long-term station at headquarters, Kantishna recorded an extra 3.36 inches.



Figure 4. Kantishna SNOTEL station. The gage on the right measures precipitation year-round. The red and black totem is an aerial marker for snow surveys. Sensors on the tower on the left measure snow depth, temperature, and rainfall.

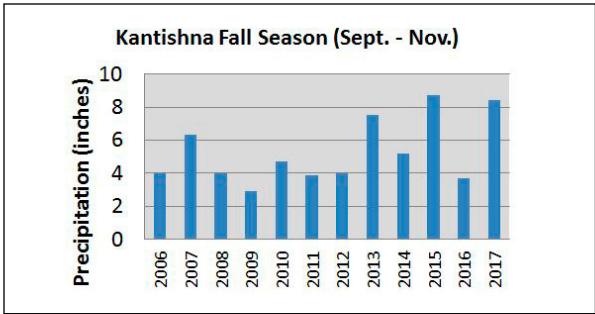


Figure 5. Fall season precipitation at Kantishna Snotel 2006-2017.

More Information

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