

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.

4th Quarter Fall 2016

Weather & Climate Summary Yukon-Charley Rivers National Preserve Fall 2016

Eagle Fall Weather

The fall of 2016 was warmer and drier than normal.

In September, the monthly average temperature was 42.9°F, which is 1.1°F warmer than normal. Some of the warmest temperatures were towards the end of the month, with temperatures as high as 63°F on September 23. Total rainfall for the month was 1.15 inches; normal is 1.31 inches. 10 of the 30 days in September had measurable rainfall amounts (> 0.01 inches).

It was the driest October on record in Eagle, and temperatures were cooler than normal. The monthly average temperature was -1.8°F colder than normal at 21.2°F. The low temperature for the month was -15°F on October 25, a record high for that day. Precipitation only occurred on two days in October, totaling a tenth of an inch of water in 2 inches of snow.

November was warmer than normal with below-normal precipitation. The average monthly temperature of 9.1°F was 6.1°F above the 1981-2010 normal. Temperatures climbed as high as 45°F on November 11, more than 35°F warmer than normal for the day. The November snowfall total was 6.9 inches, only 57% of normal. Precipitation (water equivalent) was 68% of normal for the month.

The average fall temperature was 24.4°F, 1.8°F warmer than normal. Snowfall was only 36% of normal for the season. A total of 1.75 inches of precipitation (water equivalent) fell during the fall, which is 59% of normal. It was the 6th driest fall on record (see Figures 1 and 2; Table 1, 2, and 3).

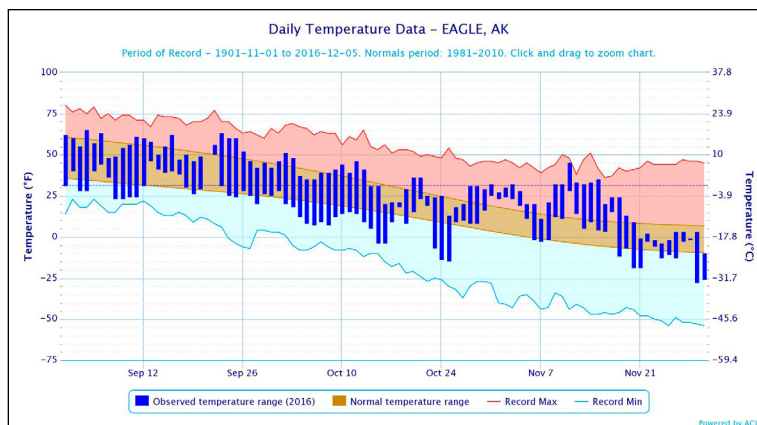


Figure 1. Fall 2016 daily temperatures at Eagle showing record maximum (red), record minimum (blue), normal (brown) and 2016 observed daily range (blue bars).

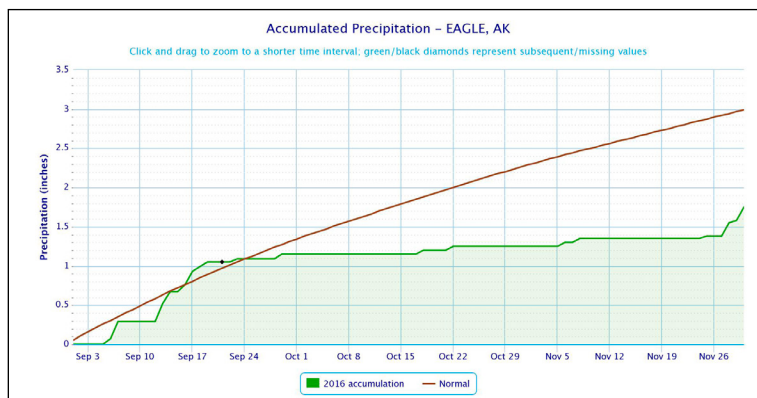


Figure 2. Fall 2016 accumulated precipitation at Eagle (green) compared to normal (brown line).

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

Fall 2016	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
September	42.9	41.8	+1.1	65 / Sep. 4	20 / Sep. 28
October	21.2	23.0	-1.8	51 / Oct. 2	-15 / Oct. 25
November	9.1	3.0	+6.1	45 / Nov. 11	-28 / Nov. 29

Fall Season Temperature Departure from Normal: +1.8°F

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

Fall 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
September	1.15	1.31	-0.16	0.23 / Sep. 13	10
October	0.10	0.95	-0.85	0.05 / Oct. 18 & 22	2
November	0.50	0.73	-0.23	0.17 / Nov. 28 & 30	6

Fall Season Departure from Normal: -1.24 inches (59% of normal)

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

Fall 2016	Total Monthly Snowfall (in.)	1981-2010 Normal (in.)	Departure from Normal (in.)	Greatest 24-hr snowfall total (in. / Date)	Seasonal Cumulative Snowfall (in.)
September	Trace	1.3	-1.3	T / Sep 28	Trace
October	2.0	11.1	-9.1	1.0 / Oct. 18 & 22	2.0
November	6.9	12.1	-5.2	2.4 / Nov. 28	8.9

Climate Monitoring in Yukon-Charley

The NPS climate stations in Yukon-Charley Rivers have been in operation for a decade (Figure 3). The Coal Creek and Upper Charley stations complement long-term records available from the National Weather Service station in Eagle. There is also a fire RAWS that has been in operation for several decades and is the featured station this month.

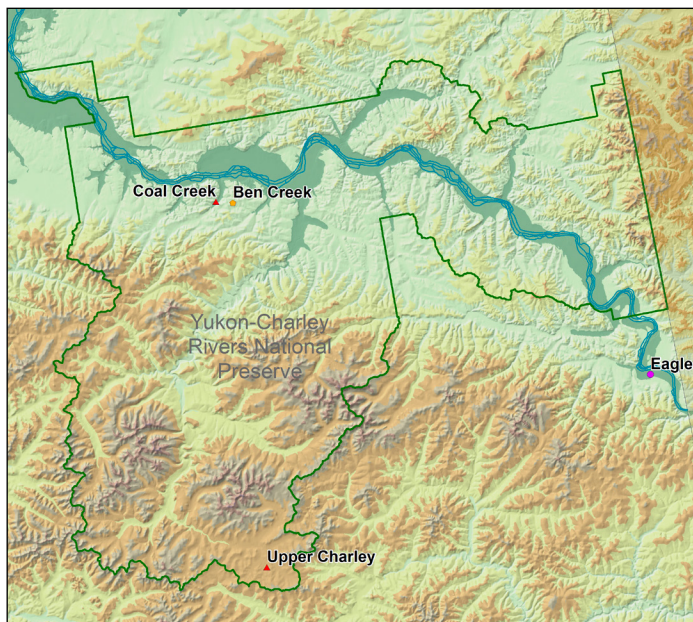


Figure 3. NPS Climate stations in Yukon-Charley Rivers N Pres.

Featured Station: Aerial Snow Markers in YUCH

Five aerial snow markers in YUCH complement climate monitoring stations (Figure 4). Park staff, including park pilots, as well as vendor pilots fly these surveys the last 3 days of each

month from November through April. The aerial markers are 10 feet high and have large red crossbars every two feet and smaller black crossbars every foot. The snow depth can be determined by flying by the marker and noting where the snow is on the marker. The snowpack measurements are part of the CAKN snow monitoring program which documents long-term trends in snow and monitors changes in the extent, duration, and character of the seasonal snow cover.

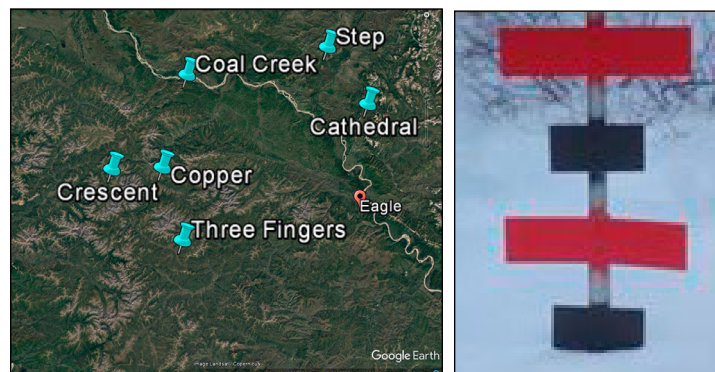


Figure 4. Locations of aerial snow markers in YUCH (left) and aerial snow markers (right).

More Information

Pam Sousanes; pam_sousanes@nps.gov; ph 907-455-0677

Ken Hill; kenneth_hill@nps.gov; ph 907-455-0678

<http://science.nature.nps.gov/im/units/cakn>

[Current Weather in Yukon-Charley Rivers](#)