



Weather & Climate Summary Bering Land Bridge National Preserve Winter 2017-2018

Nome Winter Weather 2017-2018

The winter of 2017-2018 (December-February) tied with 2015-16 for the 5th warmest on record since 1907. Out of the ten warmest winters on record, four have occurred in the last five years. Precipitation and snowfall were near-normal this winter.

The warm temperatures in December were consistent and remarkable. The average temperature for the month was 21.8°F compared to a normal monthly average of 9.5°F. Only four out of thirty-one days were cooler than normal. The record high daily temperature of 38°F on December 23 beat out the old record of 37°F set in 1985. Overall, it was the 4th warmest December on record. With 1.56 inches of precipitation (water equivalent) and 18.7 inches of snowfall, December was slightly wetter and snowier than normal.

The warm streak continued through the first half of January, with temperatures consistently above normal through the 17th. The only cold spell of the winter was January 19-27. The coldest temperature of the winter was -25°F on January 21. Despite the cold temperature mid-month, January still ended up with a monthly average temperature of 7.9°F, 2.7°F warmer than normal. Precipitation and snowfall were less than 50% of normal with only 5.8 inches of snow in January.

Warm temperatures were once again the story for February. The normal average monthly February temperature is 7.4°F, but 2018 came in at 18.0°F, the 4th warmest February on record. A strong pressure gradient between Kamchatka and interior Alaska, ushered in warm winds from the south, which hindered sea ice growth and kept air temperatures well above normal. February precipitation was 157% of normal and total snowfall for the month was 17.2 inches.

The average winter temperature at Nome was 15.9°F which is 8.5°F warmer than the 1981-2010 normal. Total winter

precipitation was 3.84 inches, 118% of normal. A total of 41.7 inches of snow fell between December 1 and February 28, 106% of normal (Figure 1 and 2; Table 1, 2 and 3).

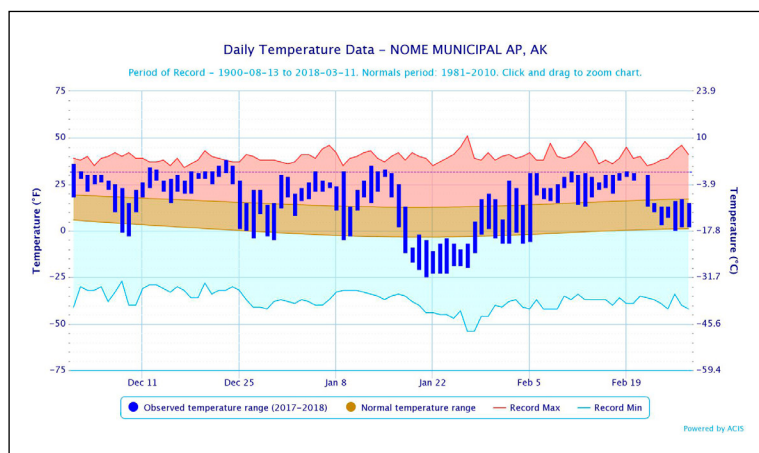


Figure 1. Winter 2017-2018 daily temperatures at Nome showing record maximum (red), record minimum (blue), normal (brown) and observed range (blue bars).

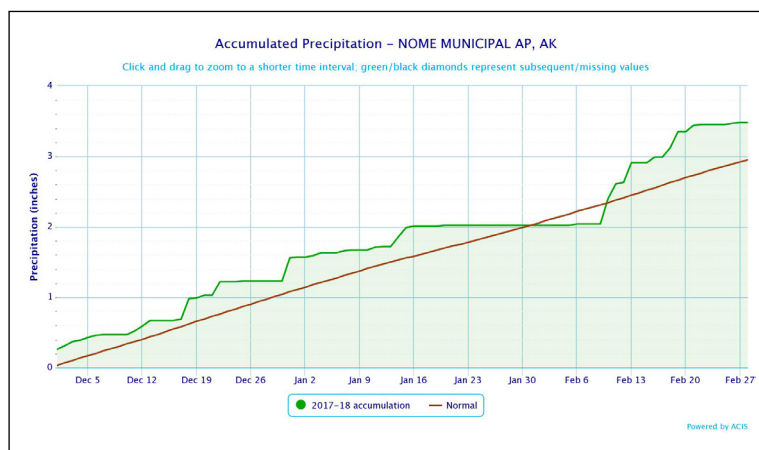


Figure 2. Winter 2017-2018 accumulated precipitation at Nome (green) compared to normal (brown line).

Table 1. Temperature: Winter 2017-2018 average monthly temperatures compared to the 1981-2010 normal.

Winter 2017-2018	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
December	21.8	9.5	+12.3	38* / Dec. 23	-5 / Dec. 30
January	7.9	5.2	+2.7	35 / Jan. 13	-25 / Jan. 21
February	18.0	7.4	+10.6	32 / Feb. 11 & 19	-7 / Feb. 1, 2, 4

Winter Season Temperature Departure from Normal: +8.5°F; * Record daily high.

Table 2. Precipitation: Winter 2017-2018 monthly precipitation totals compared to normal.

Winter 2017-2018	Total Monthly Precip. in.	1981-2010 Normal in.	Departure from Normal in.	Greatest 24 -hr. total in. / Date	# Days with ≥ 0.01 in. water
December	1.56	1.08	+0.48	0.33 / Dec. 31	17
January	0.46	0.94	-0.48	0.14 / Jan. 14	11
February	1.46	0.93	+0.53	0.36 / Feb. 10	12

Winter Season Precipitation Departure from Normal: +0.53 inches (118% of normal).

Table 3. Snowfall: Winter 2017-2018 monthly snowfall totals compared to normal.

Winter 2015-2016	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.
December	18.7	14.5	+4.2	3.9 / Dec. 31	50.3
January	5.8	12.7	-6.9	1.6 / Jan. 14	56.1
February	17.2	12.2	+5.0	5.2 / Feb. 10	73.3

Winter Season Precipitation Departure from Normal: +2.3 inches (106% of normal).

NPS Climate Monitoring Stations

NPS climate stations in Bering Land Bridge complement the long-term record from the National Weather Service station in Nome. NPS stations are located at Serpentine Hot Springs, Midnight Mountain, Devil Mountain, and Ella Creek (Figure 3).

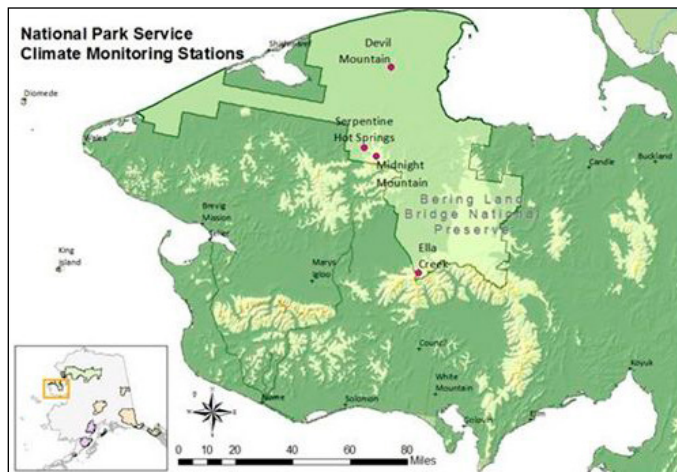


Figure 3. NPS Climate stations in Bering Land Bridge National Preserve.

Record Low Arctic Sea Ice

Arctic sea ice extent was at a record low for most of the winter (Figure 4). Both Pacific and Atlantic sides of the Arctic recorded more open water and lower concentrations of sea ice than usual. The Bering Sea was exceptionally low on ice due to huge areas of expanding open water in the

second half of February. Overall, arctic sea ice extent at the end of February 2018 was 521,000 square miles below the 1981-2010 normal, an area equal in size to 80% of Alaska's land mass.

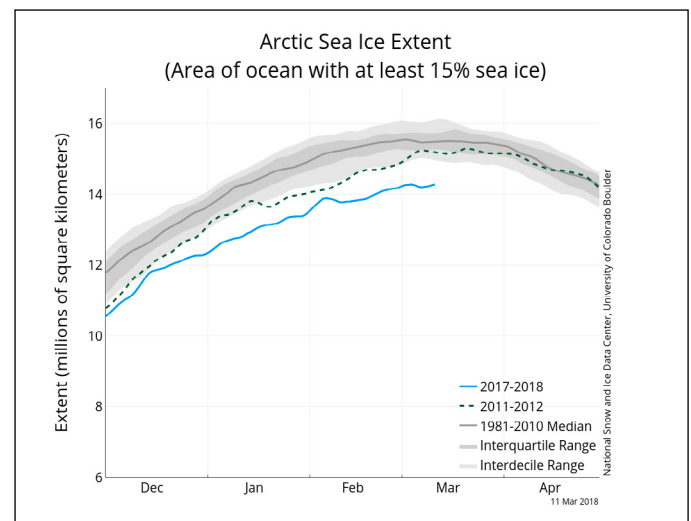


Figure 4. Arctic Sea Ice Extent.

More Information

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