Weather and Climate

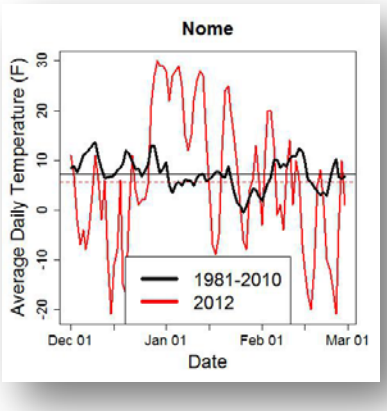
Bering Land Bridge Winter 2012-2013 Weather Summary

What is Normal?

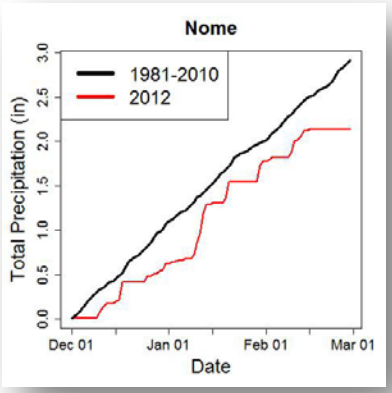
"Normals" are used to place recent climate conditions into historical context. It takes 30 years of continuous weather data at one location to calculate what makes temperatures or precipitation amounts "normal". The weather station in Nome has been in operation since 1906, and while the records in the early days were spotty, the record for the past 60+ years is solid. Nome is a good index site to use for climate comparisons in the Arctic parks.

In Nome, December was very cold and dry. The average temperature for December was 6.2° F cooler than normal and the total precipitation was 0.62 inches, which is 57% of normal. However, a significant precipitation event accompanied by blowing snow occurred December 16-17 leaving over six inches of snowfall. The average monthly temperature warmed substantially in January with an average temperature of 13.5° F, 8.3° F above the 1981-2010 normal. The total precipitation for the month was 1.16 inches, normal is 0.94 inches. January precipitation was slightly above average with 19 days of snow totaling 16.5 inches. February was cold and very dry. It was 7.4° F colder than normal and there was 0.36 inches of precipitation measured for the month. The normal precipitation total for February is 0.93 inches. Although the amount of water was 0.27 inches below normal for the season, snowfall is more than 6 inches above normal and snow depths are deeper than normal.

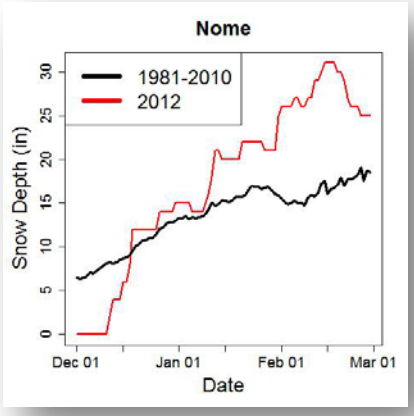
Nome – Average Air Temperatures



Nome – Cumulative Precipitation



Nome – Cumulative Snow Depth



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Nome Weather Records:
Climate Normal Period 1981 – 2010
Climate Record Period 1906 – 2012

Temperature

Winter 2012 - 2013	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
December	3.3	9.5	- 6.2	34 / Dec 30	-30 / Dec19
January	13.5	5.2	+ 8.3	34 / Jan 13	-20 / Jan 27
February	-0.3	7.4	- 7.7	27 / Feb 10	-30 / Feb 25

Winter Season Temperature Departure from Normal: -1.9°F

Precipitation

Winter 2012 – 2013	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	0.62	1.08	-0.46	0.22 / Dec 16-17	12
January	1.16	0.94	+ 0.22	0.31 / Dec 12-13	14
February	0.36	0.93	-0.57	0.14 / Dec 9-10	9

Winter Season Departure from Normal: -0.27 inches

Snowfall

Winter 2012 - 2013	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.	Normal Snowfall from July 1 in.
December	14.7	14.5	+ 0.2	6 / Dec 17	17.3	31.7
January	16.5	12.7	+ 3.8	3.7 / Jan 30	33.8	44.4
February	15.0	12.2	+ 2.8	2.1 / Feb 10	48.8	56.6

We now have additional NPS climate stations in Bering Land Bridge that complement the long-term record available from the National Weather Service station in Nome. The new NPS stations will provide critical data along a north south transect across the Seward Peninsula that will help characterize the climate gradients and patterns affecting resources in Bering Land Bridge National Preserve.

In 2013, the Ella Creek station will have real-time data available.

Bering Land Bridge Winter 2012-2013 Weather Summary

Arctic Network RAWS weather summaries Winter 2012-2013:

Park	Site	Elev. Ft.	Average Temp °F Dec	Jan	Feb	Winter 2012-13 Avg Temp °F	Extremes °F High	Low	Snow Depth In. *	Peak Wind mph	High T – Low T °F **
BELA	Devil Mountain	285	-2.0	5.9	-8.7	-1.6	32	-29	0	46	61
	Serpentine	518	0.1	4.4	-11.1	-2.2	34	-30	12	57	64
	Quartz Creek	321	-2.5	8.6	-8.8	-0.9	34	-38	***	57	72
	Hoo Doo Hills	1495	-2.4	2.7	-7.8	-2.5	31	-26	***	54	57

* Snow depth on February 28th; ** Difference between the high and low temperature for the season; ***snow not measured at this site

Interesting notes from RAWS stations:

- The peak wind gust measured at Serpentine, Quartz Creek, and Hoodoo Hills is about 10 mph stronger than the highest wind gust measured at Nome airport.
- There was a 72 degree F temperature spread between the highest and lowest temperatures of the season at Quartz Creek, which is a lower elevation station in the interior Seward Peninsula near BELA.
- Although January is typically the coldest month, for winter 2012-2013 both December and February were colder months.

Early winter near the Ella Creek RAWS. The new station will begin transmitting in summer 2013.

Please Note: The summarized data are preliminary and have not undergone final quality control. Therefore, these data are subject to revision.

Connecting Further

ARCN Weather and Climate Resource Brief

Access near real-time data from Western Regional Climate Center and MesoWest

Check out the 3 month weather outlook from the NOAA Climate Prediction Center

Statewide summary of weather highlights in the latest Climate Dispatch from the Alaska Center for Climate Assessment and Policy

Map of projected temperature and precipitation changes for Bering Land Bridge National Preserve.

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