



Weather and Climate



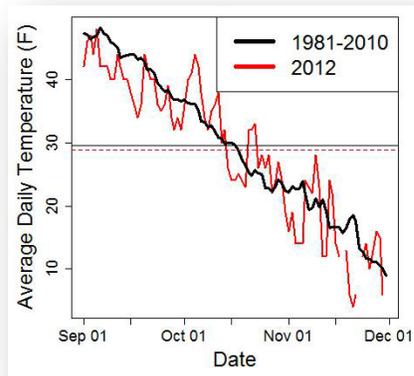
Bering Land Bridge Fall 2012 Weather Summary

What is Normal?

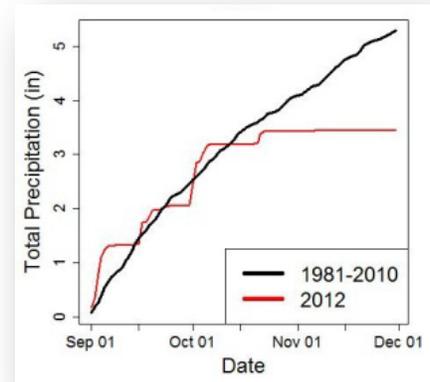
“Normals” are used to place recent climate conditions into historical context. It takes 30 years of continuous weather data at one location to calculate what makes temperatures or precipitation amounts “normal”. The weather station in Nome has been in operation since 1906, and while the records in the 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, fall 2012 started out cool and relatively dry. The average temperature for September was 3.1° F cooler than normal and the total precipitation was 2.07 inches, which is 84% of normal. The temperatures warmed in October with an average temperature of 30.6° F, 1.9° F above the 1981-2010 normal. The total precipitation for the month was 1.36 inches, normal is 1.61 inches. There was only 1 day during the month (October 21st) that had more than 1 inch of measurable snow. The normal average snowfall total for October is 4.6 inches; 2.1 inches of snow fell in October 2012. November was cold and very dry. It was 2.4 degrees colder than normal and there was only 0.02 inches of precipitation measured for the entire month. The normal precipitation total for November is 1.22 inches. By November 30th the average snowfall total should be around 17 inches for the season; by November 30th 2012 only 2.6 inches had fallen for the season.

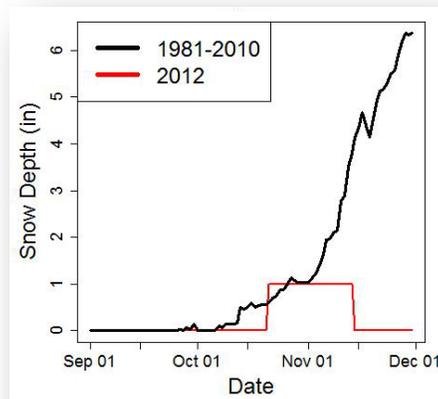
Nome – Average Air Temperatures



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

Fall 2012	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
September	39.7	42.8	-3.1	54 / Sep 11	27 / Sep 28
October	30.6	28.7	+1.9	47 / Oct 3	14 / Oct 28,31
November	14.5	16.9	-2.4	31 / Nov 10	-6 / Nov 22

Fall Season Temperature Departure from Normal: -1.2°F

Precipitation

Fall 2012	Total Monthly Precip in.	1981-2010 Normal in.	Departure from Normal in.	Greatest 24 –hr total in. / Date	# Days with ≥ 0.01 in. rain or snow
September	2.07	2.45	-0.38	0.45 / Sep 3	15
October	1.36	1.61	-0.25	0.39 / Oct 2	14
November	0.02	1.22	-1.20	0.02 / Nov 6	3

Fall Season Departure from Normal: -0.61 inches

Snowfall

Fall 2012	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.
September	0.3	0.6	-0.3	0.2 / Sep 30	0.3	0.5
October	2.1	4.6	-2.5	1.6 / Oct 21	2.4	5.1
November	0.2	12.1	-11.9	0.2 / Nov 6	2.6	17.2

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.

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Arctic Network RAWS weather summaries Fall 2012:

Park	Site	Elev. Ft.	Average Temp °F			Fall 2012	Extremes °F		Snow Depth In. *	Peak Wind mph	High T –
			Sep	Oct	Nov	Avg Temp °F	High	Low			Low T °F **
BELA	Devil Mountain	285	36.1	28.4	11.2	25.2	49	-1	0	37	50
	Serpentine	518	35.7	27.6	8.7	24.0	52	-9	1	43	61
	Quartz Creek	321	37.2	28.7	6.3	24.1	58	-17	***	43	75
	Hoo Doo Hills	1495	m	26.1	8.4	m	m	-3	***	49	m

* Snow depth on November 30th; ** Difference between the high and low temperature for the season; ***snow not measured at this site

Interesting notes from RAWS stations:

- Devil Mountain was almost 3.4 degrees F warmer than the sites farther inland (to the south); the proximity to open water seems to moderate the air temperature at this location in the fall.
- There was a 75 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.
- There was ~ a 21 degree F difference in the average monthly temperatures for October versus November as the available daylight (and heat) fades fast.



Climate station near Serpentine Hot Springs in BELA.

Connecting Further

New paper published – [The First Decade of the New Century: A Cooling Trend for Most of Alaska](#)

[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.

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

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