Weather and Climate

Bering Land Bridge Fall 2013 Weather Summary

Was Fall 2013 Normal?

It was a warm, wet fall in Nome. Although it started out cool and dry in September, that all changed in October and overall the average temperature for fall 2013 was 2.0° F warmer than the 1981-2010 normal; the total precipitation was 137% of normal.

October, in particular was significantly warmer and wetter than normal.

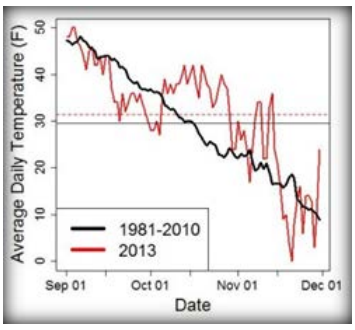
Record High *minimum* temps = Warm nights in October
Oct 16: 42°F
Oct 19: 40°F
Oct 20: 39°F
Nov 13: 34°F

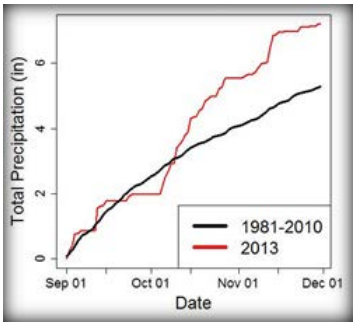
In Nome, September temperatures were cool and it was relatively dry. The average temperature for September was 39.9° F, which is 2.9° F cooler than normal. Temperatures stayed well below normal during the latter part of the month. The total precipitation for the month was 1.98 inches, 81% of normal. A one day event on September 12 brought 0.70 inches of rain, a record for that day. A total of 1.1 inches of snow fell during the month, which is about 0.5 inches more than normal — typically, rain falls in September rather than snow.

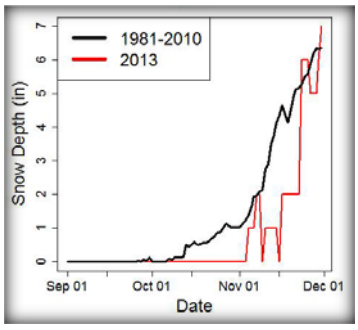
October was really warm and really wet. The average temperature for October was 6.9° F warmer than the 1981-2010 normal. There were really warm evenings in October which is quite unusual — three record high minimum temperature records were broken during the month. There was a lot of rain in October; 3.55 inches of precipitation in total and only 0.5 inches of that total was from snowfall.

November temperatures continued on the warm side, but moderated from the October heat wave. The average temperature for the month was 18.8° F, 1.9° F above the 1981-2010 normal. It continued to rain and snow throughout November. Normal precipitation for November is 1.22 inches; November 2013 had 1.68 inches, with 13 inches of total snowfall. There were a few storm events that brought high winds to the region — on November 6, 9, and 13th the peak wind gusts in Nome exceeded 50 mph.

Nome – Average air temperatures, cumulative precipitation, and snow depth 2013 (red) compared to normal (black).







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Nome Weather Records:
Climate Normal Period 1981 – 2010
Climate Record Period 1906 – 2013

Temperature

Fall 2013	Average Monthly Temp °F	1981-2010 Normal °F	Departure from Normal °F	Monthly High °F / Date	Monthly Low °F / Date
September	39.9	42.8	**-2.9**	55 / Sep 9	21 / Sep 30
October	35.6	28.7	**+6.9**	44 / Oct 13	17 / Oct 31
November	18.8	16.9	**+1.9**	40 / Nov 9	-9 / Nov 20

Fall Season Temperature Departure from Normal: +2.0°F

Precipitation

Fall 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
September	1.98	2.45	**-0.47**	0.70 / Sep 12	11
October	3.55	1.61	**+1.94**	0.48 / Oct 10	21
November	1.68	1.22	**+0.46**	0.44 / Nov 12	17

Fall Season Departure from Normal: +1.03 inches

Snowfall

Fall 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.
September	1.1	0.6	**0.5**	0.7 / Sep 23	1.1	0.5
October	0.5	4.6	**-4.1**	0.2 / Oct 24	1.6	5.1
November	13.0	12.1	**+0.9**	3.4 / Nov 23	14.6	17.3

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.

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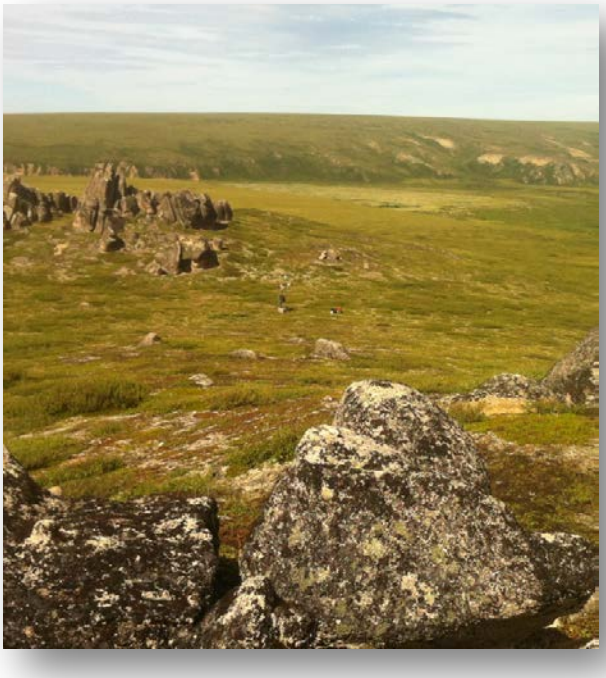
Bering Land Bridge Preserve RAWS weather summaries — Fall 2013:

Site	Elev. Ft.	Average Temp °F Sep	Oct	Nov	Fall 2013 Avg Temp °F	Extremes °F High	Low	Peak Wind mph	High T-Low T °F *
Devil Mountain	285	35.8	32.1	15.6	27.8	53	-5	62	58
Serpentine	518	36.7	34.0	15.5	28.7	58	-16	58	74
Ella Creek	2258	31.8	27.7	12.3	23.9	46	-7	76	53
Quartz Creek	321	37.7	34.2	15.4	29.1	58	-13	65	71
Hoo Doo Hills	1550	33.0	29.7	11.9	24.9	52	-12	**	64

* Difference between the high and low temperature for the season. **Suspect low max wind speeds from HooDoo Hills.

Interesting notes from RAWS stations:

- All of the stations on the Seward Peninsula recorded sustained high winds during the statewide storm in mid-November.
- At Ella Creek, there were sustained average wind speeds > 50 mph, and peak wind gusts > 70 mph on both Nov 9 and Nov 13.
- Ella Creek, the new high elevation site in the southern part of the preserve, had the coldest average temperature for fall 2013.
- Although Ella Creek was coldest overall, the site at HooDoo Hills was the cold spot in November. The Hoo Doo station is ~700' lower in elevation than Ella Creek.



Climate station at Serpentine Hot Springs

Connecting Further

New paper published Recent sea ice increase and temperature decrease in the Bering Sea area, AK

Previous weather summaries and other climate monitoring documents on the Arctic Network web portal

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

Check out the Dec-Jan-Feb weather outlook from the NOAA Climate Prediction Center

Statewide summary of weather highlights in the latest Alaska 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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