



## November 2014 Weather Summary

Kenai Fjords National Park and surrounding areas experienced an unusually warm start to what is locally, though unofficially, considered early winter. Daily high temperatures recorded at the Seward airport reached into the high 40s and low 50s the first three weeks of the month and were above freezing on all days in November except the 27<sup>th</sup>. Three new daily record high temperatures were set (November 12<sup>th</sup>, 16<sup>th</sup> and 18<sup>th</sup>) and one was tied (November 10<sup>th</sup>) at the Seward airport.

Temperatures at the Harding Icefield Remote Automated Weather Station (RAWS) were also warmer than normal for November but remained below freezing throughout the month. This means that precipitation that fell at this site (located at an elevation of 4200 ft in the northern part of the ice field) fell as snow. The freezing temperatures on the ice field were accompanied by gusty winds the first half of the month when gust speeds greater than 40 mph (and a maximum of 83.4 mph) were recorded on 17 consecutive days. Farther out in the fjords the temperatures were warmer and the gusts were faster. The McArthur Pass RAWS recorded daily maximum temperatures above freezing throughout the month. At midmonth, average wind speeds above 50 mph and gusts up to 102 mph were recorded at this site when a Bering Sea-record-low-pressure-setting superstorm passed through the Gulf of Alaska.

Although November's precipitation was slightly above normal, the above freezing temperatures prevented any snow from developing at lower elevations until the final weekend of the month. As of December 3<sup>rd</sup>, 8.7 inches of snow were measured at Exit Glacier at the first monthly snow survey for the season. This was slightly deeper than the last two years, but was the fourth lowest December 1<sup>st</sup> snowpack recorded at Exit Glacier since the park started measuring snow in 1989.

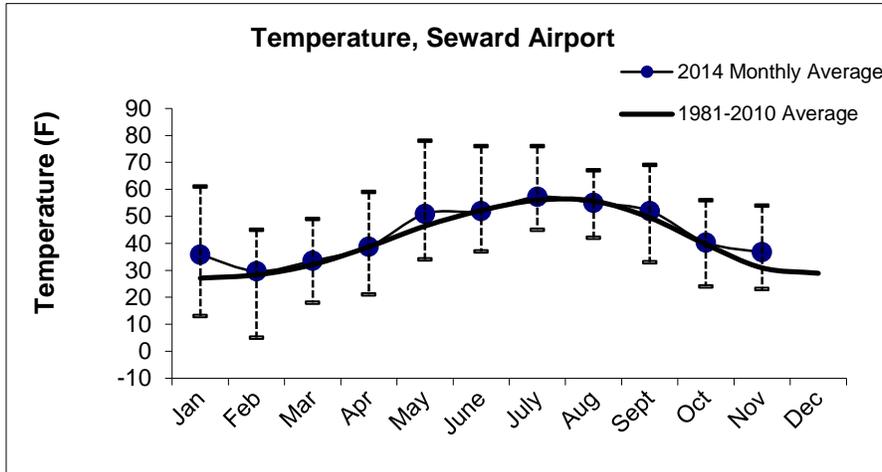
As recorded at the Seward airport, the monthly average temperature for November was 36.7 degrees F; 5.8 degrees F above the 30-year normal. The total precipitation was 8.6 inches (118% of normal), 1.29 inches above the 30-year normal (1981-2010) for the month.

Also of note:

- The [National Weather Service Climate Prediction Center's](#) three month weather outlook (December-January-February) favors above-normal temperatures and above-normal precipitation for the Kenai Fjords area.
- Scientists at Columbia University are investigating how [algae in Arctic sea ice contributes to the underlying marine ecosystems, and which marine organisms depend on the algae for nutrition](#).
- NASA's Earth Observatory captured [satellite images of Pavlof, Alaska's most active volcano](#), sending plumes of ash into the atmosphere in early November.
- NASA's Earth Observatory also captured [images of the mid-November extratropical cyclone that passed through the southern waters of Alaska](#) and triggered an extreme cold spell in the central U.S.
- Check out NOAA's National Climatic Data Center's [map showing the coldest day of the year across the United States](#). It's no surprise to see that the Kenai Fjords area experiences its annual deep chill in late January.
- Still confused by the term "ENSO"? The World Meteorological Organization has published a new document explaining the [cause and effect of the infamous weather phenomena known as El Niño and La Niña](#).
- New research published by the *Proceedings of the National Academy of Sciences* provides a new twist to the concept of global warming: [instead of acting like a planetary blanket, global warming's effect is more like that of tanning oil](#).
- The geography of ocean acidification: Columbia University's Lamont-Doherty Earth Observatory has developed [a new map showing the variability of ocean acidification in space and time. In northern winter, the Bering Sea, between Alaska and Siberia, is the most acidic region on earth](#).
- NOAA climate services portal serves as a [single point-of-entry for NOAA's extensive climate information](#), data, products, and services.

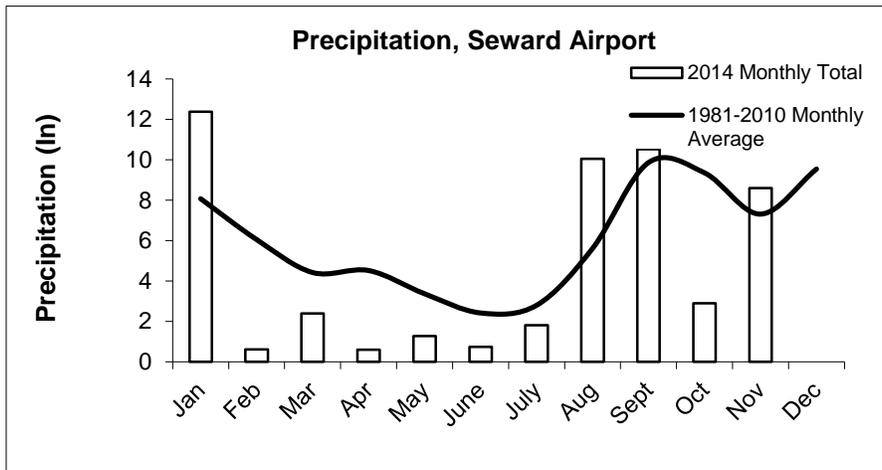
***Read more to find out about the local climate for November 2014***

**Seward Airport Temperature, November 2014** (station 26438)



Monthly and 30-year average temperature (F) at Seward airport. The range of maximum and minimum daily temperatures for each month are shown with a dashed vertical line.

**Seward Airport Precipitation, November 2014** (station 26438)



Monthly and 30-year average precipitation (inches) at Seward airport.

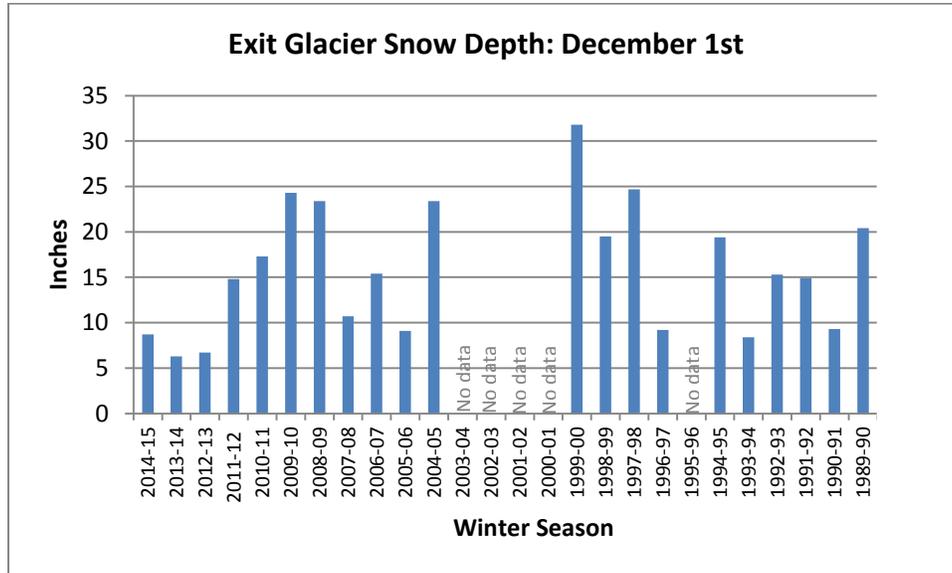
**Rivers**

**Resurrection River** at Exit Glacier Bridge is monitored by the Alaska-Pacific River Forecast Center:

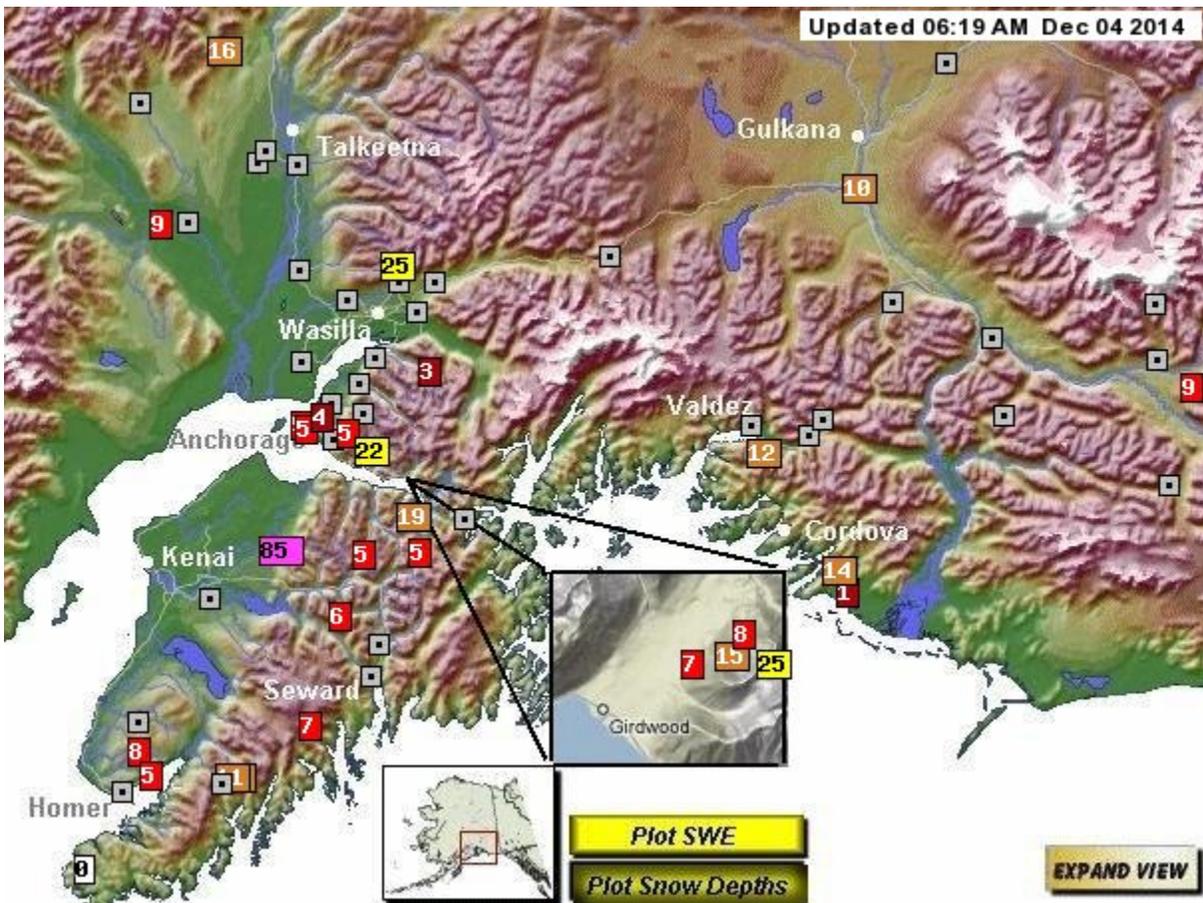
[http://aprfc.arh.noaa.gov/index\\_rivs.php](http://aprfc.arh.noaa.gov/index_rivs.php)

**Exit Creek** water level (stage height) data is only collected during the summer, beginning in May and ending in September.

**Snow & Ice**



Kenai Fjords National Park staff collaborate with the Natural Resource Conservation Service (<http://www.amnrc.org/>) to monitor snow at Exit Glacier with measurements and reporting taking place December to May. Snow is measured within three days of the first of each month. 2014 is the fourth lowest December 1<sup>st</sup> snow pack at Exit Glacier since monitoring began.



Snow depths reported across southcentral Alaska on Dec. 4<sup>th</sup> : [http://aprfc.arh.noaa.gov/sd\\_pafc\\_sites.html](http://aprfc.arh.noaa.gov/sd_pafc_sites.html).

**Weather Station data** (map of [some] stations [Western Region Climate Center](#) or [MesoWest](#))

<a href="#">Seward Airport</a>	<a href="#">Seward Hwy MP#12</a>	<a href="#">Pedersen Lagoon</a>
<a href="#">Grouse Crk Divide</a>	<a href="#">Exit Glacier</a>	<a href="#">Buoy 76-Cape Cleare</a>
<a href="#">Exit Glacier SNOTEL</a>	<a href="#">Harding Icefield</a>	<a href="#">Pilot Rock</a>
<a href="#">McArthur Pass</a>	<a href="#">Nuka Glacier</a>	

**Weather Forecasts**

<a href="#">Seward Summary</a>	<a href="#">Graphical Forecast</a>	<a href="#">Surface Map</a>
<a href="#">Marine Forecast</a>	<a href="#">4-8 Day Forecast</a>	