

Alaska Statewide Climate Summary

February 2014

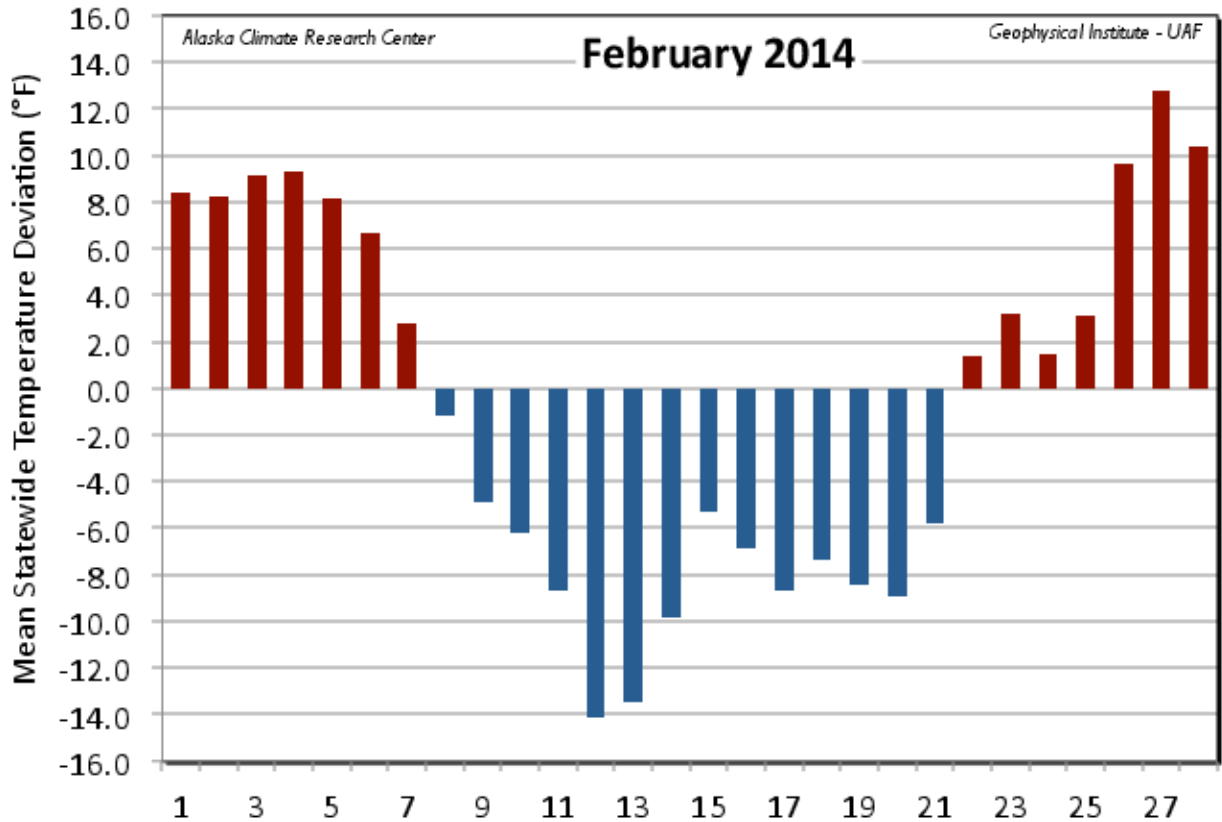
Temperature

February temperatures were mixed both across the state, and during the month with nine of the 20 First Order Stations reporting positive deviations, and eleven recording negative deviations. The month started out continuing the warmer than normal temperatures from January. After the first week temperatures turned to below normal for two weeks, then returned to above normal for the final week of the month. The peak deviation (-14.1°F) occurred on the 12th. The monthly mean temperature for all 20 First Order Stations was 14.1°F, just 0.9°F below the normal of 15.0°F. This is 10.5°F below January of 2014 mean of 24.6°F. It is interesting to note that all 20 first order stations reported colder mean temperatures for February than for January, some decidedly so. Gulkana was 27.1°F colder for February than January. Gulkana also held the greatest negative deviation from normal for February at a significant 14.0°F below its long-term mean of 5.5°F. Stations following Gulkana with negative deviations exceeding 6°F: Annette (-7.2°F), Juneau (-6.2°F) and Yakutat (-6.2°F), all Southeast stations. Stations with positive deviations from normal that were greater than 6.0°F: Barrow (7.2°), Nome (6.2°F) and Kotzebue (6.1°F). It is worth noting that these stations were located in the Northwestern and Arctic portions of Alaska.

The warmest temperature reported for the 20 First Order Stations was 51°F at Kodiak on the 28th, which ties the daily record. The coldest temperature was -36°F at Barrow on the 19th and 20th, occurring during the cold snap. Kodiak and Annette both reported the highest mean temperature for the month at 30.5°F, while Gulkana reported the coldest at -8.5°F.

Station	Temperature		
	Observed (°F)	Normal (°F)	Delta (°F)
Anchorage	18.6	20.2	-1.6
Annette	30.5	37.7	-7.2
Barrow	-7.0	-14.2	7.2
Bethel	15.9	11.1	4.8
Bettles	-5.8	-5.0	-0.8

Cold Bay	30.5	29.0	1.5
Delta Junction	1.2	4.9	-3.7
Fairbanks	-4.4	-1.3	-3.1
Gulkana	-8.5	5.5	-14.0
Homer	26.6	26.2	0.4
Juneau	23.9	30.1	-6.2
King Salmon	22.5	18.8	3.7
Kodiak	30.0	30.8	-0.8
Kotzebue	5.3	-0.8	6.1
McGrath	3.1	1.4	1.7
Nome	13.6	7.4	6.2
St. Paul Island	25.4	24.4	1.0
Talkeetna	16.6	18.1	-1.5
Valdez	21.2	26.0	-4.8
Yakutat	23.5	29.7	-6.2



Daily mean temperature deviation from the normal temperature for the mean of the 20 first order stations for February 2014.

A fair number of daily temperature record events were recorded in February, about evenly split between high and low events. The low events were located in the southeastern portion of the state. The four record low events in Annette resulted in the coldest February 6th to 9th ever for Annette, breaking the old record for these dates from 1989. High winds of 71 mph and a temperature of -42°F at Howard Pass in the western Brooks Range on the 14th resulted in a wind chill of -97°F, a new record, breaking the -96°F set in Prudhoe Bay on January 28, 1989.

Date	Temperature Records				
	Station	Element	New Record	Old Record	Year of old Record
02/01/14	Barrow	High Temperature	26	25	1948

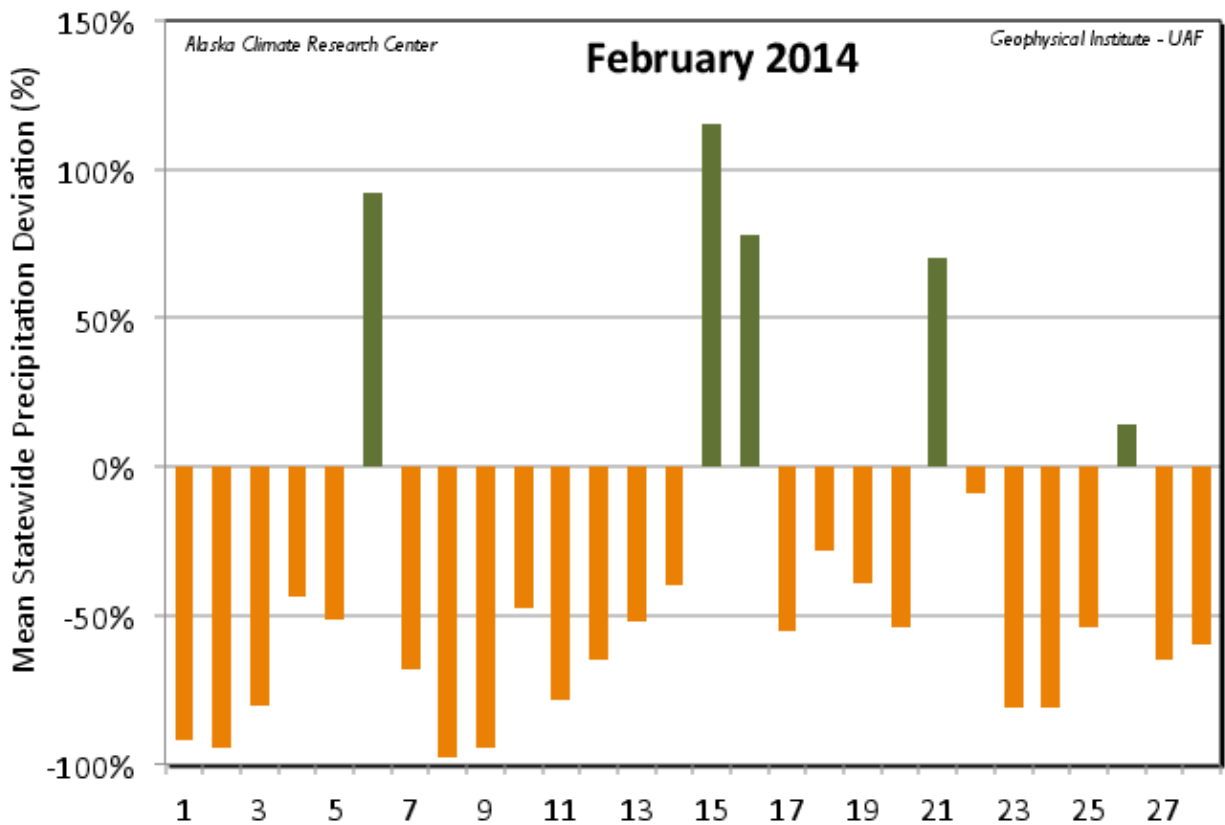
02/04/14	Cold Bay	High Temperature	46	45	1985
02/05/14	Cold Bay	High Temperature	46	44	1957
02/05/14	Craig	Low Temperature	20	23	1951
02/06/14	Annette	Low Temperature	13	15	1989
02/06/14	Craig	Low Temperature	17	19	1951
02/07/14	Annette	Low Temperature	11	12	1949
02/07/14	Craig	Low Temperature	15	22	1951
02/08/14	Annette	Low Temperature	13	13	1989
02/08/14	Cold Bay	High Temperature	42	42	2003
02/08/14	Craig	Low Temperature	15	15	2008
02/09/14	Annette	Low Temperature	10	14	1989
02/09/14	Craig	Low Temperature	16	16	2008
02/23/14	King Salmon	High Temperature	45	45	1993
02/26/14	Homer	High Temperature	47	47	1970
02/26/14	Kodiak	High Temperature	51	51	1962
02/26/14	Kotzebue	High Temperature	31	31	1981
02/27/14	Anchorage	High Temperature	49	48	1968
02/27/14	Bethel	High Temperature	46	45	1991
02/27/14	Kotzebue	High Temperature	34	33	1995

Precipitation

Precipitation for February was very low at just 62% of normal, with only four of the 20 First Order Stations and five days of the month reporting above normal values. The greatest daily deviation of 115% occurred on the 15th. Cold Bay had the greatest positive deviation from normal, with a total of 4.12", or 38% above the expected amount of 2.98". This high deviation was aided by a new daily precipitation record set on the 21st. Following Cold Bay with deviations at or above 100% of normal were: Barrow (136%), Gulkana (131%) and Kodiak (113%). Leading the stations with lower than normal precipitation was Talkeetna with just 6%, and King Salmon with just 8% of normal.

Station	Precipitation				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	0.56	0.72	-0.16	-22%	78%
Annette	3.97	7.31	-3.34	-46%	54%
Barrow	0.19	0.14	0.05	36%	136%
Bethel	0.41	0.72	-0.31	-43%	57%
Bettles	0.29	0.85	-0.56	-66%	34%
Cold Bay	4.12	2.98	1.14	38%	138%
Delta Junction	0.24	0.28	-0.04	-14%	86%
Fairbanks	0.40	0.42	-0.02	-5%	95%
Gulkana	0.67	0.51	0.16	31%	131%
Homer	1.01	1.71	-0.70	-41%	59%
Juneau	1.98	4.13	-2.15	-52%	48%
King Salmon	0.06	0.76	-0.70	-92%	8%
Kodiak	6.95	6.14	0.81	13%	113%
Kotzebue	0.17	0.66	-0.49	-74%	26%
McGrath	0.09	0.94	-0.85	-90%	10%
Nome	0.60	0.93	-0.33	-35%	65%

St. Paul Island	0.92	1.30	-0.38	-29%	71%
Talkeetna	0.08	1.45	-1.37	-94%	6%
Valdez	0.78	5.79	-5.01	-87%	13%
Yakutat	2.08	10.86	-8.78	-81%	19%



Daily mean precipitation deviation from the normal for the 20 first order stations for February 2014.

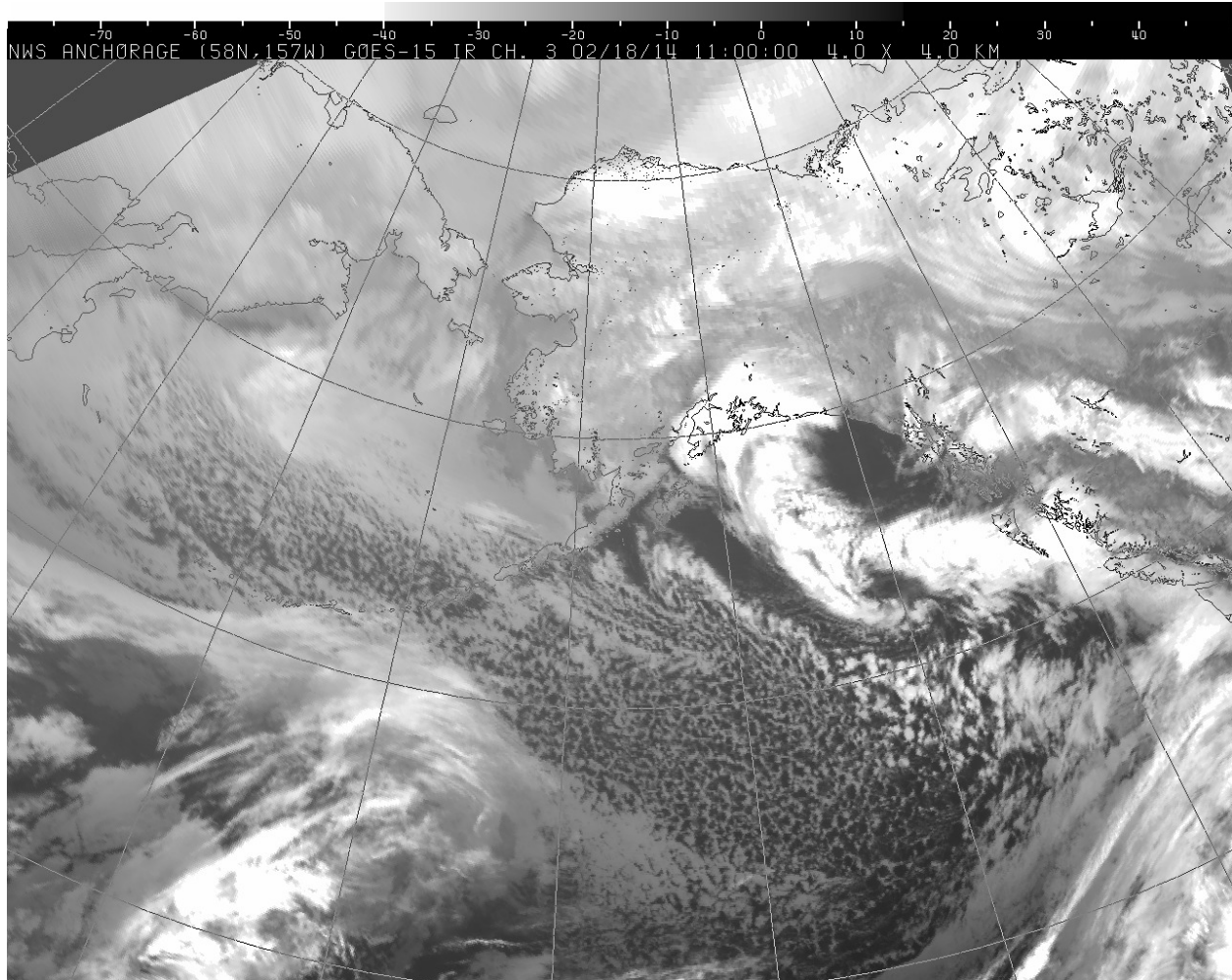
Snowfall was below normal (71%) for 16 stations that report snowfall. Thirteen of these stations reported below normal values with Bethel reporting the relatively lowest value at just 6% of normal. Annette topped the stations with positive deviations at 208% of normal.

Station	Snowfall				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	9.9	10.9	-1.0	-9%	91%
Annette	15.0	7.2	7.8	108%	208%
Barrow	2.2	2.6	-0.4	-15%	85%
Bethel	0.4	6.9	-6.5	-94%	6%
Bettles	4.8	14.0	-9.2	-66%	34%
Cold Bay	13.2	12.9	0.3	2%	102%
Fairbanks	7.1	8.1	-1.0	-12%	88%
Juneau	26.8	16.8	10.0	60%	160%
King Salmon	1.3	6.0	-4.7	-78%	22%
Kodiak	7.0	15.1	-8.1	-54%	46%
Kotzebue	1.2	9.6	-8.4	-88%	13%
McGrath	0.8	13.1	-12.3	-94%	6%
Nome	9.1	12.2	-3.1	-25%	75%
St. Paul Island	7.9	10.0	-2.1	-21%	79%
Valdez	13.4	61.3	-47.9	-78%	22%
Yakutat	28.1	28.6	-0.5	-2%	98%

The maximum monthly precipitation total reported for the 20 First Order Stations was 6.95" at Kodiak, which also reported the highest daily total of 2.51" on the 26th, a new daily record. The highest one-day snowfall occurred at Yakutat on the 13th with 10.2", while Yakutat also reported the highest monthly snowfall of 28.1". Valdez topped the stations for the deepest snowpack of 42" on the 19th.

Due to the overall low precipitation for February, there were only two daily precipitation records. Snowfall records outnumbered precipitation records three to one, an unusual situation. King Salmon's total of 0.08" is a new monthly low, breaking the 1973 record of 0.11".

Date	Precipitation Records				
	Station	Element	New Record	Old Record	Year of old Record
02/06/14	Fairbanks	Snowfall	4.30	2.90	1971
02/09/14	Annette	Snowfall	3.10	2.50	1999
02/09/14	Craig	Snowfall	1.20	0.80	2009
02/10/14	Craig	Snowfall	2.20	0.00	2009
02/20/14	St. Paul	Snowfall	2.50	2.20	1964
02/21/14	Cold Bay	Precipitation	1.86	0.95	2002
02/26/14	Kodiak	Precipitation	2.51	1.17	1968
02/26/14	St. Paul	Snowfall	2.30	1.40	1996



This infrared satellite image from the National Weather Service shows weather pattern affecting the Southcentral portions of Alaska on February 18th, 2014. The storm resulted in snowfall across the region.

Newsworthy Events

The biggest weather story of the January concluded in February with the clearing of the "Damalanche" outside of Valdez on the 5th. Winds blowing dust and silt generated air quality warnings for Matanuska Valley on the 4th. Winds up to 73 mph were measured in Wasilla on the 7th. Also on the 7th red flag fire warnings were issued for the Matanuska Valley and western Kenai Peninsula due to high winds and low humidity. Further, on the 7th, three refuges in Matanuska-Susitna were closed to snow machines due to low snowpack. The high winds (up to 63 mph at Palmer airport) returned to the Mat-Su area on the 10th and spread a structure fire to the nearby trees and grass not covered by snow. No evacuations were necessary.

Blizzard warnings were published on the 6th for Western Prince William Sound. The Steese Highway was closed due to drifting snow on the 13th, while travel advisories were issued for portions of the Dalton and Elliot highways. This was repeated again for all three highways on the 16th. A nice snowfall in Anchorage around the 18th put a good blanket of snow on the ground Fur Rondy. Air quality alerts were put out for North Pole on the 22nd, and continued on and off through the rest of the month.

This information consists of preliminary climatological data compiled by the Alaska Climate Research Center, Geophysical Institute, University of Alaska Fairbanks. This summary is based on the 20 first order stations in Alaska operated by the National Weather Service. Extreme events of other stations are also mentioned. It should be noted that the new climate normals for the time period of 1981-2010 are applied for the calculations of the deviations, and they can be slightly different from the old normals (1971-2000), which were in use up until end of August 2011.