

Alaska Statewide Climate Summary

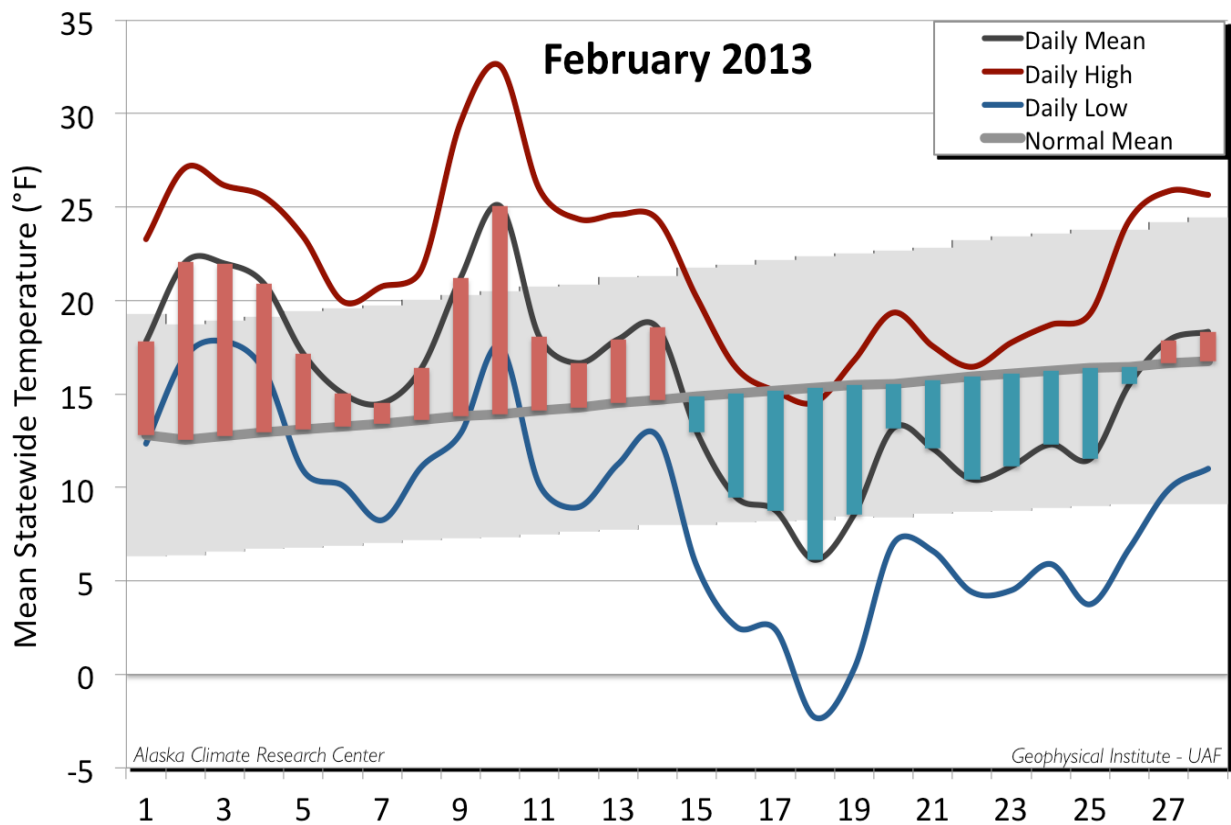
February 2013

Temperature

Warmer than normal temperature from January continued across much of the state for February 2013. The average temperature for the state for the month was 15.4°F, or 0.4°F above the normal long-term mean of 15.0°F, making February only the second month in the last eleven to have an above normal average. Twelve of the 20 first order stations reported above normal temperature means. The stations with the greatest negative deviations stretched from the Bering Sea along the coast to the North Slope. February 2012 had also been warmer than normals across most of the state, with colder than normal temperatures centered on the Bering Sea. St. Paul topped the stations with the greatest negative deviation with a significant -9.0°F, followed by Nome (-7.7°F) then Bethel and Kotzebue (-7.5°F). The stations with positive deviation larger than 5°F are, in declining order, the following: Gulkana (5.5°F), Juneau (5.4°F), Talkeetna (5.2°F) and Homer (5.1°F). Temperatures started out the month above normal, then dropped to below normal on the 15th, and stayed cold until the last two days. More details are available in the table and chart below.

Station	Temperature		
	Observed (°F)	Normal (°F)	Delta (°F)
Anchorage	24.7	20.2	4.5
Annette	39.7	37.7	2.0
Barrow	-18.3	-14.2	-4.1
Bethel	3.6	11.1	-7.5
Bettles	-5.0	-5.0	0.0
Cold Bay	29.1	29.0	0.1
Delta Junction	7.7	4.9	2.8
Fairbanks	-1.4	-1.3	-0.1
Gulkana	11.0	5.5	5.5
Homer	31.3	26.2	5.1

Juneau	35.5	30.1	5.4
King Salmon	23.0	18.8	4.2
Kodiak	32.6	30.8	1.8
Kotzebue	-8.3	-0.8	-7.5
McGrath	0.4	1.4	-1.0
Nome	-0.3	7.4	-7.7
St. Paul Island	15.4	24.4	-9.0
Talkeetna	23.3	18.1	5.2
Valdez	29.6	26.0	3.6
Yakutat	34.6	29.7	4.9



Daily temperature ranges and normals, as well as the deviation from the normal temperature for the mean of the 20 first order stations for February 2013.

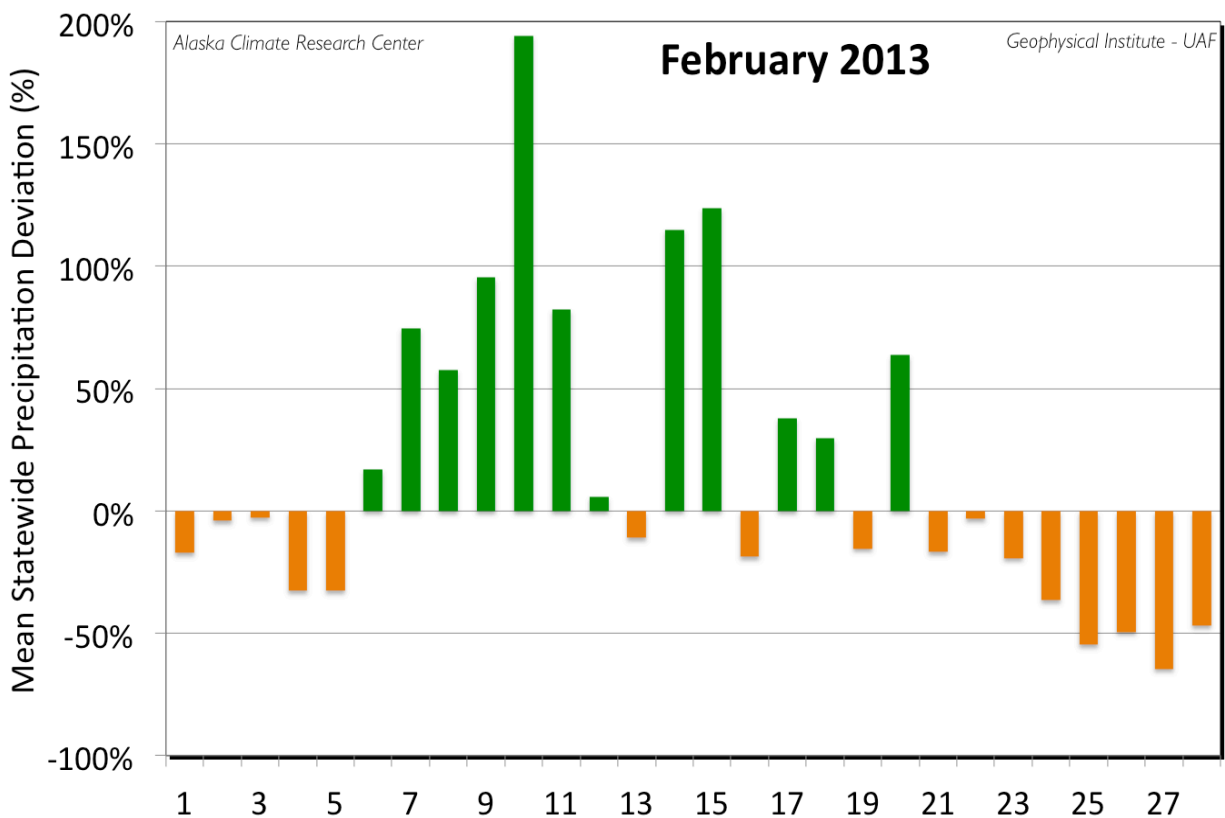
February's temperature record events were limited to two, and somewhat surprising, both are record lows, but correlate with the below normal temperatures reported in the Bering Sea area. On the 15th the minimum temperature dropped to -9°F in St Paul, breaking the 1991 record of -6°F. Then again in St Paul on the 25th the low hit -12°F, tying the record set back in 1954.

Precipitation

February witnessed mixed precipitation across Alaska with seven of the 20 first order stations reporting below normal totals. Three stations with greatest departures (in declining order) are: Bettles with just 16% of normal, then came Nome (39%), Barrow (50%), Delta Junction (68%) and McGrath (69%). At the high end were King Salmon with 154% above normal, then Annette (83%), Anchorage (71%), and Juneau (60%). Much of the total precipitation for the month fell between the 6th and 20^h of February. The overall departure could be calculated at 14% above the long-term mean.

Station	Precipitation				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	1.23	0.72	0.51	71%	171%
Annette	13.36	7.31	6.05	83%	183%
Barrow	0.07	0.14	-0.07	-50%	50%
Bethel	0.94	0.72	0.22	31%	131%
Bettles	0.14	0.85	-0.71	-84%	16%
Cold Bay	2.32	2.98	-0.66	-22%	78%
Delta Junction	0.19	0.28	-0.09	-32%	68%
Fairbanks	0.48	0.42	0.06	14%	114%
Gulkana	0.65	0.51	0.14	27%	127%
Homer	1.23	1.71	-0.48	-28%	72%
Juneau	6.61	4.13	2.48	60%	160%
King Salmon	1.93	0.76	1.17	154%	254%

Kodiak	6.65	6.14	0.51	8%	108%
Kotzebue	0.94	0.66	0.28	42%	142%
McGrath	0.65	0.94	-0.29	-31%	69%
Nome	0.36	0.93	-0.57	-61%	39%
St. Paul Island	1.44	1.30	0.14	11%	111%
Talkeetna	1.96	1.45	0.51	35%	135%
Valdez	6.93	5.79	1.14	20%	120%
Yakutat	14.88	10.86	4.02	37%	137%



Daily mean precipitation deviation from the normal for the 20 first order stations for February 2013.

Snowfall for February was a bit heavier than normal with nine out of the sixteen stations that report snowfall recording above normal totals, resulting in an overall mean of 21% above normal. Annette topped the stations reporting a deficit of snow with no snowfall reported, 7.2" below the normal amount. Juneau came in with just 8%, followed by Bettles at 20%, of normal snowfall for February.

On the other end of the extreme was King Salmon with 365% above normal. Rounding out the heavy snowfall stations were: St. Paul (66%), Yakutat (58%), Valdez (57%) and Anchorage (51%). The cold temperatures and above average snowfall resulted in twice the normal snow depth for the month in St. Paul.

Station	Snowfall				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	16.5	10.9	5.6	51%	151%
Annette	0.0	7.2	-7.2	-100%	0%
Barrow	2.7	2.6	0.1	4%	104%
Bethel	9.2	6.9	2.3	33%	133%
Bettles	2.8	14.0	-11.2	-80%	20%
Cold Bay	11.1	12.9	-1.8	-14%	86%
Fairbanks	10.7	8.1	2.6	32%	132%
Juneau	1.4	16.8	-15.4	-92%	8%
King Salmon	27.9	6.0	21.9	365%	465%
Kodiak	19.0	15.1	3.9	26%	126%
Kotzebue	9.4	9.6	-0.2	-2%	98%
McGrath	10.1	13.1	-3.0	-23%	77%
Nome	7.5	12.2	-4.7	-39%	61%
St. Paul Island	16.6	10.0	6.6	66%	166%
Valdez	96.3	61.3	35.0	57%	157%
Yakutat	45.1	28.6	16.5	58%	158%

A limited number of precipitation and snowfall records were set in February. Kodiak started out the month with 1.73" of precipitation on the 1st, breaking the 1.46" record set back in 1941. Yakutat set a new record with 2.58" on the 9th, 0.12" above the 1974 record. Kotzebue measured 0.40" on the 14th,

more than doubling the 2009 record of 0.18". Fueling the high snowfall in King Salmon were three new record snowfalls. The first one hit on the 7th with 2.9", just breaking the 1966 record of 2.6". Then on the 12th, 3.5" came down, topping the 1.8" record from 2006. Finally, the 19th saw 5.7" of snow, replacing the 1964 record of 3.1". The cold and heavy snow in St. Paul came with a record snowfall on the 9th at 3.0", 0.2" over the 2006 record.

Newsworthy Events

Heavy snowfall during the Yukon Quest resulted in difficult train conditions. Portion of the trail were re-routed due to poor conditions, loping 50 miles of the length of the trail. High winds and blowing snow resulted in travel advisory's being issued for Steese and Elliott highways on the 2nd. Steese highway was then closed on the 8th at Eagle Summit dues to high winds and blowing snow. Freezing rain impaired driving on the Richardson highway on the 11th. Blizzards conditions hit a 30-mile stretch of the Parks highway from Denali Park south on the 17th. The same day say saw a travel advisory issued for Atigun Pass on the Dalton.

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 July 2011.