

Alaska Statewide Climate Summary

April 2015

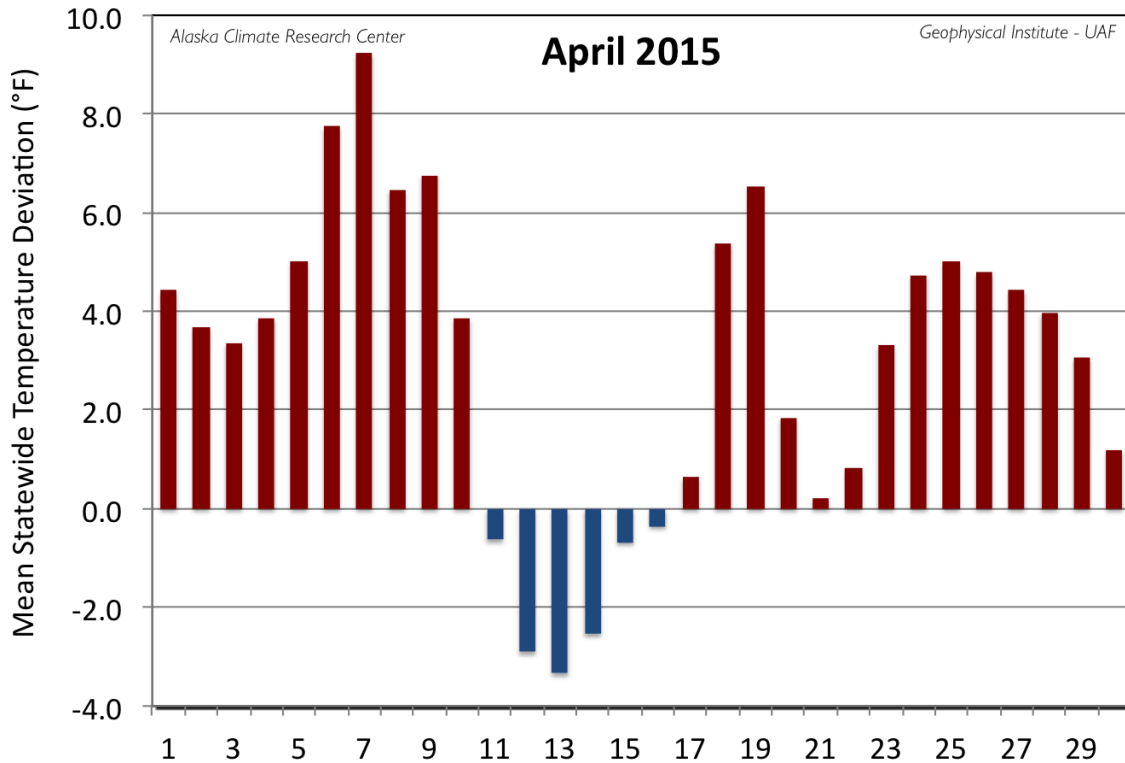
Temperature

The warm temperatures that have existed throughout most of the winter continued into April 2015 with temperatures that were above normal for the first ten days followed by colder than normal temperatures for the next week. Thereafter, the last half of the month experienced above normal temperatures. Overall, it was a warmer than normal April with all 19 First Order Stations reporting positive deviations. Calculating the mean daily temperatures of the First Order Stations (see Figure), 24 days of the month were above the 30-year normal. The peak warm deviation, a high 9.2°F, occurred on the 7th of the month, while the coldest deviation was -3.3°F on the 13th. The monthly mean temperature of all First Order Stations was 33.4°F, 2.9°F above the normal of 30.5°F. This is 0.3°F above the April 2014 mean of 33.1°F. McGrath held the greatest positive deviation from normal at a significant 5.9°F above its long-term mean of 29.7°F. Stations following Homer with positive deviations exceeding 4°F were: Barrow (4.9°F), Homer (4.9°F), Bettles (4.5°F), Fairbanks (4.3°F), and Delta Junction (4.1°F).

The warmest temperature of the First Order Stations was 63°F reported at Annette on the 24th and Fairbanks on the 27th. Annette also reported the highest mean temperature for the month at 45.2°F. The coldest temperature was -14°F at Kotzebue on the 14th. Barrow reported the lowest April mean temperature at 6.7°F.

Station	Temperature		
	Observed (°F)	Normal (°F)	Delta (°F)
Anchorage	40.7	36.8	3.9
Annette	45.2	44.2	1.0
Barrow	6.7	1.8	4.9
Bethel	30.3	26.9	3.4
Bettles	27.8	23.3	4.5
Cold Bay	34.5	34.0	0.5

Delta Junction	36.3	32.2	4.1
Fairbanks	36.8	32.5	4.3
Gulkana	34.7	31.8	2.9
Homer	41.9	37.0	4.9
Juneau	41.9	40.8	1.1
King Salmon	36.1	33.7	2.4
Kodiak	40.0	37.6	2.4
Kotzebue	16.4	13.3	3.1
McGrath	35.6	29.7	5.9
Nome	21.5	20.5	1.0
St. Paul Island	29.6	29.2	0.4
Talkeetna	38.8	35.9	2.9
Yakutat	39.0	37.8	1.2



Daily mean temperature deviation from the normal temperature for the mean of the first order stations for April 2015.

As has often been the case throughout this winter, the daily record temperature events for April were all high events, with no record low events reported. Most of these were reported during the warm period experienced during the first week of the month.

Date	Temperature Records				
	Station	Element	New Record	Old Record	Year of old Record
04/01/15	King Salmon	High Temperature	51	51	1934
04/05/15	Cold Bay	High Temperature	50	46	2013
04/05/15	Gustavus	High Temperature	52	52	1978
04/05/15	Hollis	High Temperature	53	53	2013

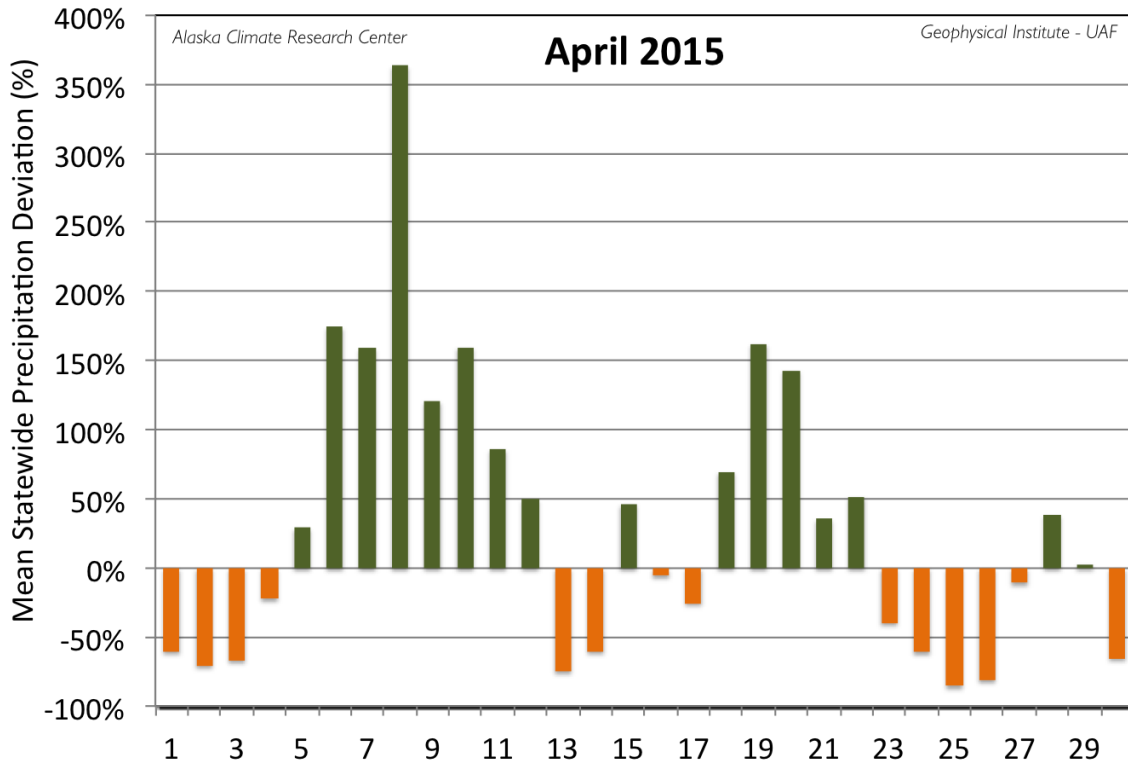
04/05/15	Juneau	High Temperature	55	55	2010
04/07/15	Anchorage	High Temperature	50	50	1995
04/21/15	Cold Bay	Low Temperature	14	17	1984
04/29/15	Bethel	High Temperature	60	57	2005

Precipitation

Like March 2015, April was wetter than normal, with the overall precipitation calculated as 28% above normal; this calculation was based on the mean of the deviations in percentage of the First Order Stations. Ten of the First Order Stations and 15 days of the month reported above normal values. This is relatively wetter than April in 2014 that had just 75% of the normal precipitation. The greatest daily deviation of 364% occurred on the 8th, when a storm passed over the Southeastern portions of the state and set a number of records in that area. On a monthly basis, Homer had the greatest positive deviation from normal, with a total of 3.92", or 366% above the expected amount of 1.07". Other stations with precipitation greater than 200% of normal were: Barrow (288%), Juneau (244%), and King Salmon (225%). The leading station with a lower than normal precipitation amount was Kodiak with just 12% of normal. Other stations with less than 50% of their normal precipitation were: Gulkana (17%), and Bettles (28%).

Station	Precipitation				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	0.66	0.47	0.19	40%	140%
Annette	11.84	6.77	5.07	75%	175%
Barrow	0.46	0.16	0.30	188%	288%
Bethel	1.06	0.74	0.32	43%	143%
Bettles	0.17	0.60	-0.43	-72%	28%

Cold Bay	1.96	2.42	-0.46	-19%	81%
Delta Junction	0.22	0.23	-0.01	-4%	96%
Fairbanks	0.16	0.31	-0.15	-48%	52%
Gulkana	0.04	0.24	-0.20	-83%	17%
Homer	3.92	1.07	2.85	266%	366%
Juneau	7.18	2.94	4.24	144%	244%
King Salmon	2.18	0.97	1.21	125%	225%
Kodiak	0.69	5.81	-5.12	-88%	12%
Kotzebue	0.55	0.54	0.01	2%	102%
McGrath	0.38	0.74	-0.36	-49%	51%
Nome	0.61	0.76	-0.15	-20%	80%
St. Paul Island	1.25	1.08	0.17	16%	116%
Talkeetna	0.91	1.29	-0.38	-29%	71%
Yakutat	14.17	9.19	4.98	54%	154%



Daily mean precipitation deviation from the normal for the first order stations for April 2015.

The maximum monthly precipitation total reported for a First Order Station was 14.17" at Yakutat and Yakutat also reported the highest daily total of 2.28" on the 18th, a new daily record. The highest one-day snowfall occurred at Bethel on the 21st with 4.6", a new daily record. Yakutat also reported the highest monthly snowfall of 12.1". Bettles reported the highest snow depth of 23" during the first three days of the month.

There were a quite a number of precipitation and snowfall record events that were set throughout the month and across the state from Annette to Barrow. This is the second wettest April on record for Homer, just 0.17" under the record set in 1988. It was also the second wettest April for Juneau, totaling just 0.30" below the 1999 record.

Precipitation Records

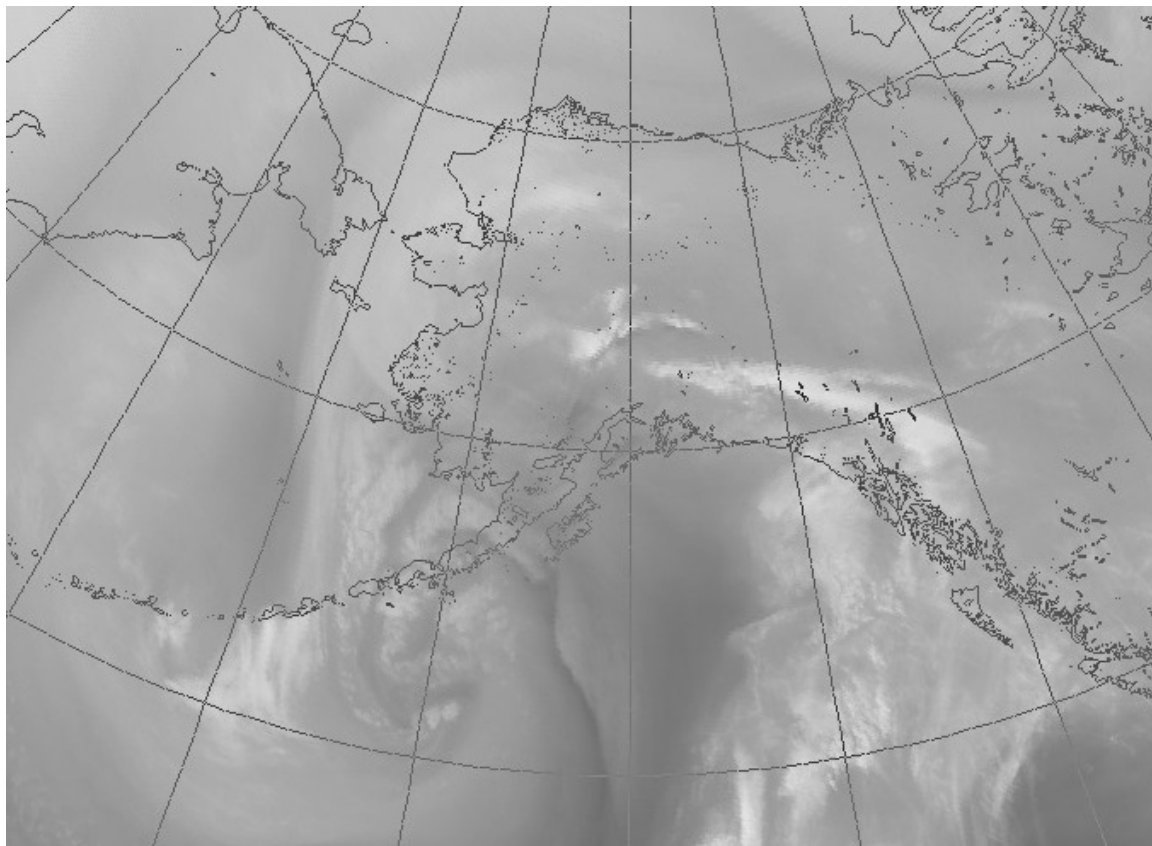
Date	Station	Element	New Record	Old Record	Year of old Record
04/04/15	Bethel	Snowfall	4.0	3.50	2006
04/06/15	King Salmon	Precipitation	0.63	0.24	1935
04/07/15	King Salmon	Snowfall	2.5	2.00	1931
04/07/15	Yakutat	Precipitation	2.27	2.02	1959
04/08/15	Juneau	Precipitation	1.14	0.66	1960
04/08/15	King Salmon	Snowfall	4.5	2.70	1975
04/09/15	Gustavus	Precipitation	1.38	1.12	1978
04/09/15	Ketchikan	Precipitation	2.85	2.10	1968
04/09/15	King Salmon	Snowfall	3.8	2.20	1974
04/10/15	Juneau	Precipitation	0.72	0.64	1994
04/11/15	Cold Bay	Snowfall	2.4	2.10	1939
04/11/15	Delta Junction	Precipitation	0.10	0.09	1948
04/12/15	Annette	Precipitation	1.07	1.06	2013
04/18/15	Yakutat	Precipitation	2.28	2.02	2005
04/19/15	Kotzebue	Precipitation	0.14	0.11	1948
04/20/15	Cold Bay	Snowfall	1.1	0.80	1988
04/21/15	Bethel	Snowfall	4.6	2.90	2003
04/21/15	Bethel	Precipitation	0.34	0.33	1961
04/22/15	Barrow	Precipitation	0.19	0.13	1961
04/28/15	Juneau	Precipitation	0.98	0.63	1963

04/28/15	Petersburg	Precipitation	2.09	1.23	2013
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Snowfall was nearly normal in April, with seven of the 15 First Order Stations that measure snowfall reporting above normal amounts. Based on the mean of the deviations from all 15 stations, the overall deviation from normal was 5% above the expected amount. Annette and Juneau reported no snowfall. Mean snow depth was about 66% under the normal. King Salmon had the highest deviation at 310% of its expected amount with a total of 12.1". This is the 4th snowiest April on record for King Salmon, and this was assisted by three record snow events in a row starting on the 7th. Anchorage continues on track to have the least snowiest winter season on record with just 25.1" of snow. The current record is 30.4" from 1957-58. The 2.2" snowfall in Anchorage on the 20th tied January 22nd for the third snowiest day of the season.

Station	Snowfall				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	4.4	4.0	0.4	10%	110%
Annette	0.0	1.4	-1.4	-100%	0%
Barrow	7.2	3.2	4.0	125%	225%
Bethel	9.8	5.7	4.1	72%	172%
Bettles	2.7	6.3	-3.6	-57%	43%
Cold Bay	8.0	6.6	1.4	21%	121%
Fairbanks	2.1	2.9	-0.8	-28%	72%
Juneau	0.0	1.1	-1.1	-100%	0%
King Salmon	12.1	3.9	8.2	210%	310%
Kodiak	4.4	8.0	-3.6	-45%	55%
Kotzebue	3.9	5.1	-1.2	-24%	76%
McGrath	3.3	5.1	-1.8	-35%	65%

Nome	7.6	7.5	0.1	1%	101%
St. Paul Island	9.2	5.7	3.5	61%	161%
Yakutat	6.8	10.2	-3.4	-33%	67%



This water vapor satellite image from the National Weather Service shows clearly the weather pattern over the eastern Alaska Range that generated high wind warning on April 19th.

News-worthy Events

The blizzard and overflow problems at the Sagavanirktok River resulted in the closure of the Dalton Highway on the 1st. The overflow water near mile 400 that started on March 13th continued to be a problem during April, with limited traffic finally allowed on the 12th. A disaster declaration was issued on the 8th to allow the State to move quickly to procure needed assistance to deal with the problem.

A high wind watch was issued for the Anchorage and Turnagain Arm areas on the 5th. The next day a fire weather watch with high winds was issued for the Matanuska Valley above 1500 feet. High wind warnings were also issued for the Eastern Alaskan Range and Denali areas on the 6th; winds up to 70 mph were forecasted. Whittier reported a gust of 74 mph, and the Anchorage International Airport reported a high gust of 43 mph. In conjunction, areas of the eastern Brooks Range, eastern Beaufort Coast and Bering Strait had winter storm warnings broadcasted.

On the 10th the annual Arctic Man competition was delayed due to poor visibility. The event, uncompleted, was canceled the following day due to the weather. A grass fire in Dillingham destroyed two structures while burning several acres on the 15th. The next day, a power outage, which stretched from the Mat-Su to Interior areas, was caused by lightening strike on the transmission line. Wind advisories and warnings were again issued for the Denali and eastern Alaska Range on the 19th. A wind gust of up to 47 mph was measured at the Fairbanks Airport, and the high winds caused power outages, some property damage and a few small fires from power lines. As a result of the nice weather and high winds the snowpack all but vanished in the Fairbanks area. The 19th was also the first day since September 29th, 2014 that the temperatures in Fairbanks did not dip below the freezing mark.

Winter weather advisories were issued for the northwestern coastal areas on the 19th. Heavy rain was forecasted for the Juneau area for the same day, while snow was forecasted for the Anchorage and Mat-Su areas. The 19th also saw the seasonal closing of the trails in the Chena River Recreation Area due to the spring thaw. The Division of Forestry also urged residents to stay off of logging roads throughout the break up season.

The Nenana Ice Classic annual guessing game came to an end on the 24th when the tripod finally tipped fully over, the sixth earliest breakup since 1917. Also on the 24th, red flag warnings due to low humidity and winds were issued for the Mat-Su area. A flood advisory was published for the Tanana River near Salcha on the 28th, then canceled on the next day as the ice jam dissipated.

The very low snowfall and overall dry conditions over the Southwestern portions of the state resulted in fire risk warnings being disseminated, and preparations were begun for an early fire season. The low snowfall during the winter had a positive outcome; the Alaska Railroad tallied the lowest moose kill in a decade at a total of just 24. This is less than a tenth of the 292 moose struck during the record snowfall winter of 2011-2012.

This information consists of preliminary climatological data compiled by the Alaska Climate Research Center, Geophysical Institute, University of Alaska Fairbanks. For more information on weather and climatology, contact the center at 907-474-7885 or visit the center web site at <http://akclimate.org>. Please report any errors to webmaster@akclimate.org. This summary is based on the 19 first order stations in Alaska operated by the National Weather Service. Extreme events of other stations are also mentioned.