Alaska Statewide Climate Summary

August 2014

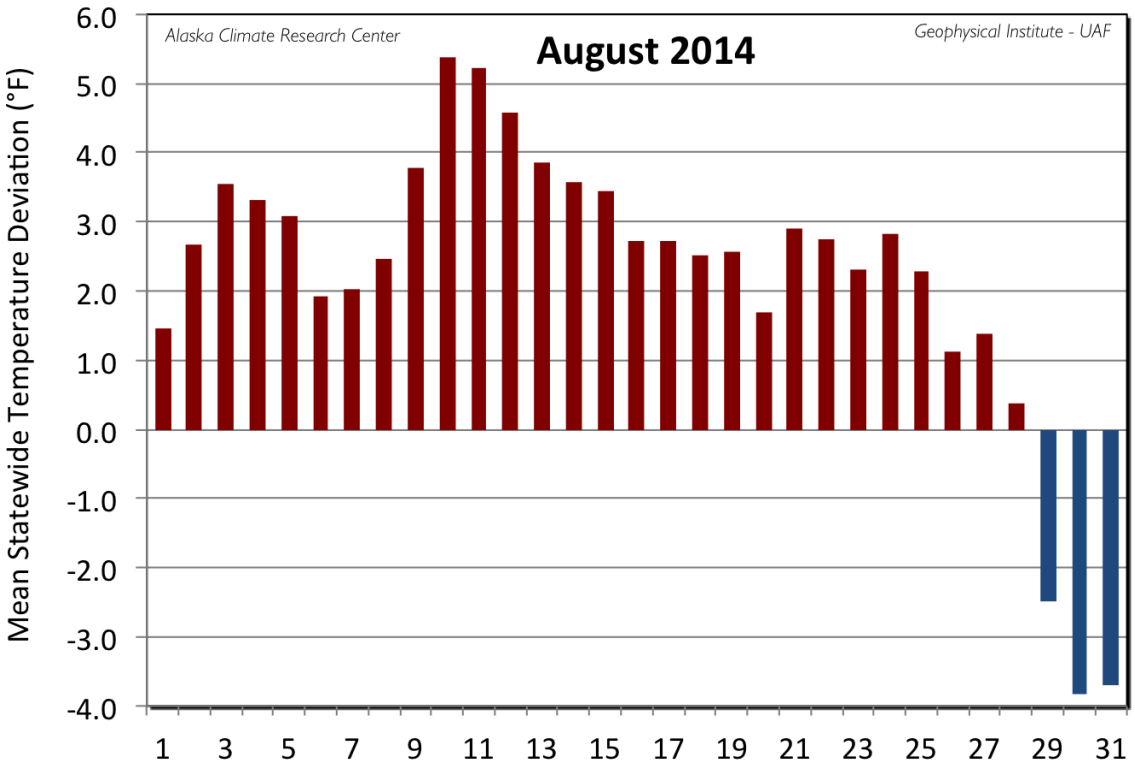
Temperature

August 2014 temperatures were decidedly above normal across the state, with 17 of the 19 First Order Stations reporting positive deviations, and just two recording below normal. Calculating the mean daily temperatures of the 19 First Order Stations (see Figure), 28 days of the month were above the 30-year normal. Only the last three days of the month were below normal. The peak deviation (5.4°F) occurred on the 10th. The monthly mean temperature of all First Order Stations was 55.6°F, 2.3°F above the normal of 53.3°F. This is 0.7°F above the August of 2013 mean of 54.9°F. Kotzebue held the greatest positive deviation from normal for August at a significant 6.7°F above its long-term mean of 51.7°F. Stations following Cold Bay with positive deviations equal to or exceeding 4°F were: Nome (5.6°F), Cold Bay (4.3°F), Homer (4.1°F) and St Paul (4.0°F). All stations with positive deviations were coastal stations. The only two stations with negative deviations from normal were Barrow (-1.3°F) and Talkeetna (-0.5°F).

The warmest temperature reported for the First Order Stations was 80°F at Fairbanks on the 11th. The coldest temperature was 24°F at Bettles on the 30th. Barrow reported the lowest August mean temperature at 37.7°F, while Annette reported the highest mean temperature for the month at 60.7°F.

Station	Temperature		
	Observed (°F)	Normal (°F)	Delta (°F)
Anchorage	**57.4**	**56.7**	**0.7**
Annette	**60.7**	**58.9**	**1.8**
Barrow	**37.7**	**39.0**	**-1.3**
Bethel	**56.8**	**53.5**	**3.3**
Bettles	**54.6**	**52.5**	**2.1**
Cold Bay	**56.4**	**52.1**	**4.3**
Delta Junction	**56.3**	**54.8**	**1.5**

Fairbanks	**59.1**	**56.1**	**3.0**
Gulkana	**53.7**	**53.5**	**0.2**
Homer	**58.0**	**53.9**	**4.1**
Juneau	**56.8**	**55.9**	**0.9**
King Salmon	**57.2**	**54.6**	**2.6**
Kodiak	**56.3**	**55.2**	**1.1**
Kotzebue	**58.4**	**51.7**	**6.7**
McGrath	**57.0**	**54.6**	**2.4**
Nome	**55.7**	**50.1**	**5.6**
St. Paul Island	**52.8**	**48.8**	**4.0**
Talkeetna	**56.2**	**56.7**	**-0.5**
Yakutat	**54.6**	**53.8**	**0.8**



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

A fair number of record temperature events were reported for August, and all were high events, tracking with the general trend for the month. St. Paul had eleven new, or tied, high temperatures days in August, nearly a third of the month, stretching throughout the month form the 1st to the 31st. In addition, St Paul had 17 high minimum events in August (not shown). Kotzebue had four high events during the first half of the month. While Cold Bay only had three high events, it also recorded nine high minimum events (not shown).

Date	Temperature Records				
	Station	Element	New Record	Old Record	Year of old Record
08/01/14	St. Paul	High Temperature	60	60	1970
08/04/14	St. Paul	High Temperature	59	58	2005
08/09/14	Kotzebue	High Temperature	73	72	2005
08/10/14	Kotzebue	High Temperature	75	70	2003

08/11/14	Nome	High Temperature	72	77	1960
08/12/14	Kotzebue	High Temperature	74	74	1960
08/15/14	Kotzebue	High Temperature	73	72	2005
08/16/14	St. Paul	High Temperature	59	59	1989
08/17/14	St. Paul	High Temperature	59	58	2005
08/18/14	Cold Bay	High Temperature	64	62	2004
08/18/14	St. Paul	High Temperature	58	56	1995
08/19/14	Cold Bay	High Temperature	66	65	2004
08/19/14	St. Paul	High Temperature	58	57	1977
08/21/14	Cold Bay	High Temperature	65	65	1978
08/21/14	Port Alexander	High Temperature	72	72	2004
08/21/14	Sitka	High Temperature	71	71	2004
08/21/14	St. Paul	High Temperature	59	58	2004
08/21/14	St. Paul	High Temperature	60	59	1969
08/22/14	Annette	High Temperature	78	77	1945
08/28/14	St. Paul	High Temperature	59	58	1979
08/30/14	St. Paul	High Temperature	57	56	2010
08/31/14	St. Paul	High Temperature	59	56	2005

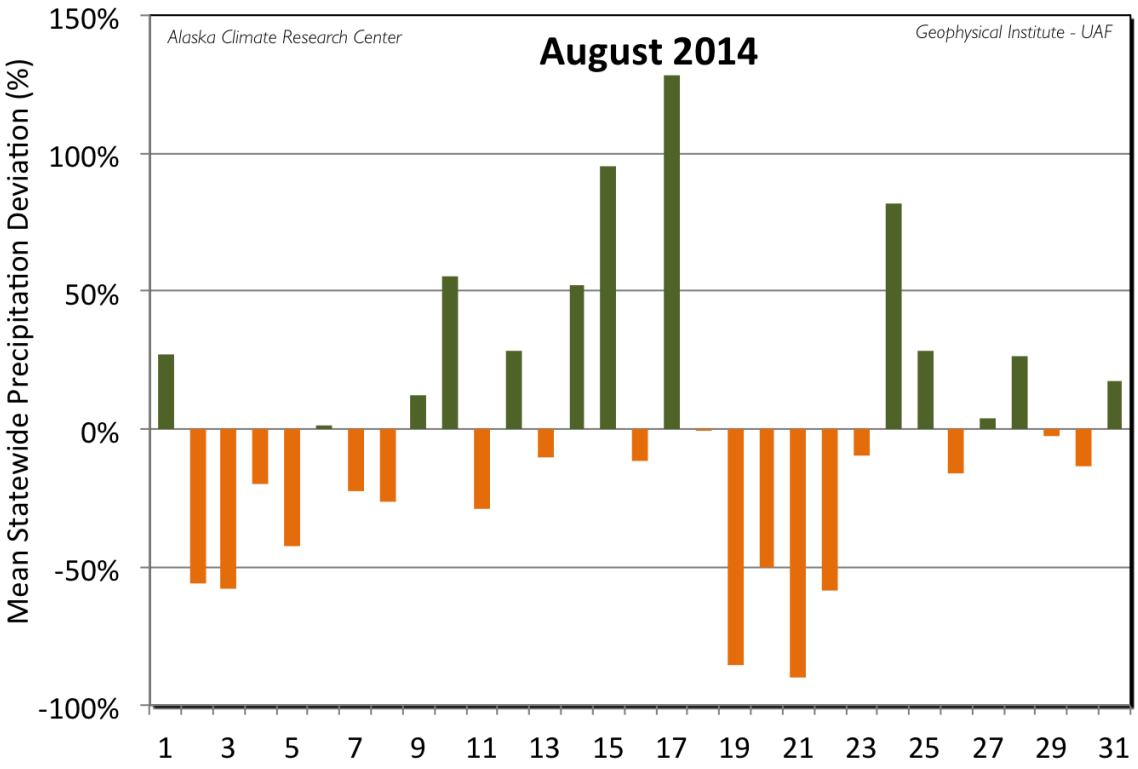
Precipitation

The overall precipitation calculated as the mean of the deviations in percentage of the First Order Stations was just 2% below normal. Ten of the 19 First Order Stations and 18 days of the month reported below normal values. The greatest daily deviation of 129% occurred on the 17th, a day with heavy precipitation in southern portions of the state. On a monthly basis, Yakutat had the greatest positive deviation from

normal, with a total of 23.17", or 165% of the expected amount of 14.07". Stations following Yakutat, with values at or above 130% of normal, were Kodiak (151%), Juneau (149%), Delta Junction (132%) and St Paul (130%). Leading the stations with lower than normal precipitation totals were Talkeetna with 43%, and Barrow with 50% of normal.

Station	Precipitation				
	Observed (in)	Normal (in)	Delta (in)	Delta (%)	(%)
Anchorage	**2.60**	**3.25**	**-0.65**	**-20%**	**80%**
Annette	**5.93**	**6.96**	**-1.03**	**-15%**	**85%**
Barrow	**0.53**	**1.05**	**-0.52**	**-50%**	**50%**
Bethel	**2.02**	**3.25**	**-1.23**	**-38%**	**62%**
Bettles	**1.74**	**2.64**	**-0.90**	**-34%**	**66%**
Cold Bay	**3.25**	**3.68**	**-0.43**	**-12%**	**88%**
Delta Junction	**2.49**	**1.89**	**0.60**	**32%**	**132%**
Fairbanks	**2.29**	**1.88**	**0.41**	**22%**	**122%**
Gulkana	**1.96**	**1.80**	**0.16**	**9%**	**109%**
Homer	**2.96**	**2.34**	**0.62**	**26%**	**126%**
Juneau	**8.53**	**5.73**	**2.80**	**49%**	**149%**
King Salmon	**3.51**	**2.95**	**0.56**	**19%**	**119%**
Kodiak	**6.90**	**4.56**	**2.34**	**51%**	**151%**
Kotzebue	**1.51**	**2.18**	**-0.67**	**-31%**	**69%**
McGrath	**1.73**	**2.80**	**-1.07**	**-38%**	**62%**
Nome	**1.71**	**3.22**	**-1.51**	**-47%**	**53%**
St. Paul Island	**4.00**	**3.07**	**0.93**	**30%**	**130%**

Talkeetna	**2.19**	**5.11**	**-2.92**	**-57%**	**43%**
Yakutat	**23.17**	**14.07**	**9.10**	**65%**	**165%**



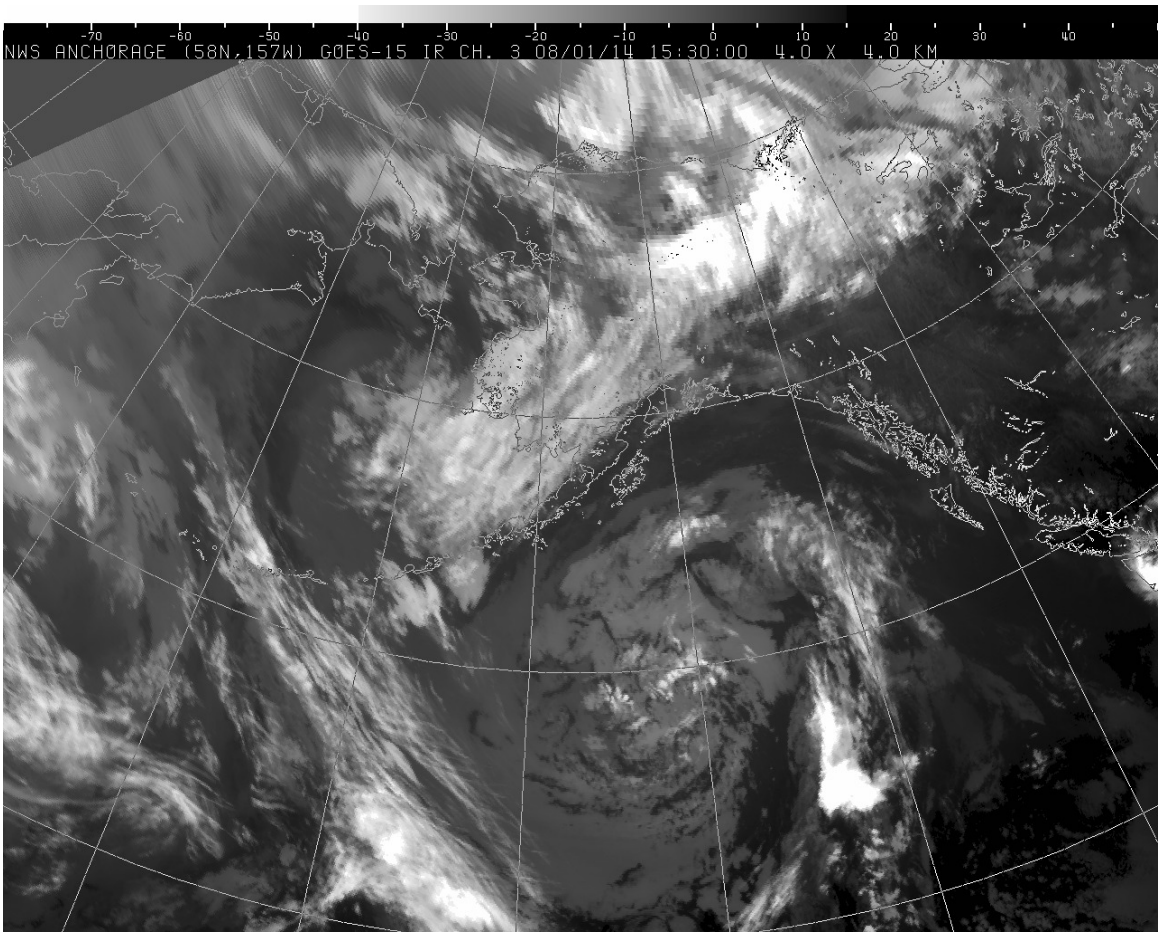
Daily mean precipitation deviation from the normal for the first order stations for August 2014.

The maximum monthly precipitation total reported for the First Order Stations was 23.17" at Yakutat, and Yakutat also reported the highest daily total of 4.07" on the 14th. The highest one-day snowfall occurred at Barrow on the 29th with 0.3Ó, and Barrow also reported the highest monthly snowfall of 0.5", and was the only First Order Station this month to report any snow.

Despite the slightly lower than normal precipitation reported for August for most stations, there were a fair number of daily precipitation records, and most were set during the middle of the month in the Southeast. Skagway Airport broke a record set back in 1928. The 1.53" that fell in Juneau on the 10th was the wettest August day since August 30th, 1987 when 1.82" fell.

Date	Precipitation Records				
	Station	Element	New Record	Old Record	Year of old Record
08/01/14	Bethel	Precipitation	0.53	0.40	1958
08/01/14	Fairbanks	Precipitation	0.89	0.42	1938
08/06/14	St. Paul	Precipitation	0.92	0.44	1961
08/09/14	Haines Airport	Precipitation	0.97	0.84	1990
08/09/14	Juneau	Precipitation	0.99	0.80	1990
08/09/14	Ketchikan	Precipitation	4.50	3.20	1967
08/09/14	Petersburg	Precipitation	1.97	1.73	1967
08/10/14	Annex Creek	Precipitation	4.14	1.15	1983
08/10/14	Auke Bay	Precipitation	1.98	1.11	1983
08/10/14	Craig	Precipitation	1.44	0.98	2009
08/10/14	Haines Airport	Precipitation	1.03	0.55	1976
08/10/14	Juneau	Precipitation	1.53	1.04	1944
08/10/14	Petersburg	Precipitation	3.27	0.83	1955
08/10/14	Port Alexander	Precipitation	5.19	2.30	1996
08/10/14	Sitka	Precipitation	3.45	0.92	1958
08/10/14	Skagway Airport	Precipitation	0.62	0.53	1928
08/11/14	Hollis	Precipitation	1.27	0.61	2009
08/15/14	Skagway Airport	Precipitation	0.51	0.46	2003

08/15/14	Yakutat	Precipitation	4.07	3.44	2003
08/17/14	Port Alexander	Precipitation	4.43	2.19	2009
08/18/14	Delta Junction	Precipitation	0.74	0.70	1941
08/18/14	Hollis	Precipitation	1.25	0.66	1952



This infrared satellite image from the National Weather Service shows weather pattern affecting the Interior portions of Alaska on August 1st, 2014. The storm resulted in heavy rainfall across the region.

Newsworthy Events

Like July, the month started off with a record rainfall in Fairbanks on the 1st, and heavy rain across the Interior for the 1st and 2nd. The months long heavy rainfall in the Interior areas manifested itself in different ways such as flooding the basements of the tallest building in Fairbanks and the Fairbanks Memorial Hospital, as well as septic tanks throughout the city. The tally for Fairbanks for the summer was 11.63", highest summer total on record, breaking the 1930 total of 11.59", and greater than the normal annual precipitation for Fairbanks of 10.81". All the rain across the state, and especially in the interior, resulted in the quietest fire season since 2004. Juneau had record rainfalls on the 8th and 10th, which generated some minor flooding. Frost warnings were issued for parts of the Fairbanks area on the 23rd. Frost was more widespread in the Interior on the 30th and 31st with Beaver dropping down to 19°F on the 31st.

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.