

National - Significant Events for June–August 2013

US Alaska Region Significant Events June - August 2013



Most of Alaska was unusually warm during summer 2013. Many areas, especially in the Interior, were quite dry, in part due to much less thunderstorm activity than normal. By late August, much of central Alaska was categorized in moderate or severe drought by the U.S. Drought Monitor. The dry conditions resulted in low water levels on rain-fed rivers, but the persistently warm weather caused glacier-fed rivers to run consistently high, with occasional minor flooding.

Ironically, showers and thunderstorms produced notable weather in parts of Alaska that rarely see such things. On July 26th 1.40" of rain fell in one hour at Kenai, one of the highest one-hour rainfall amounts ever recorded in Alaska; though no significant flooding was reported. At Barrow, a thunderstorm on the evening of June 13th was the earliest ever recorded in the season at Alaska's northernmost community.

In many areas the warm summer partially offset the effects of the very late spring. Over much of Alaska summer was an excellent season for gardening, and the construction season proceeded with few weather interruptions. However, the dry weather through mid-August adversely impacted some larger scale agricultural interests.

The warm and dry weather allowed for an active fire season. Wildfires burned 1.32 million acres, the most since 2009 and the sixth highest total in the past 20 years. With so much acreage burned, air quality problems from thick smoke occurred even in areas well distant from the fires. The most notable single wildfire was the Stuart Creek 2 fire in early July that forced the evacuation of hundreds of people from Two Rivers and Pleasant Valley, east of Fairbanks. The Arctic sea ice cleared the north coast of Alaska during late July and early August. At the end of August the ice edge, generally 50 to 150 miles offshore, was much closer than in recent years, but this is would have been typical prior to 2002.

Regional - Climate Overview for June 2013–August 2013

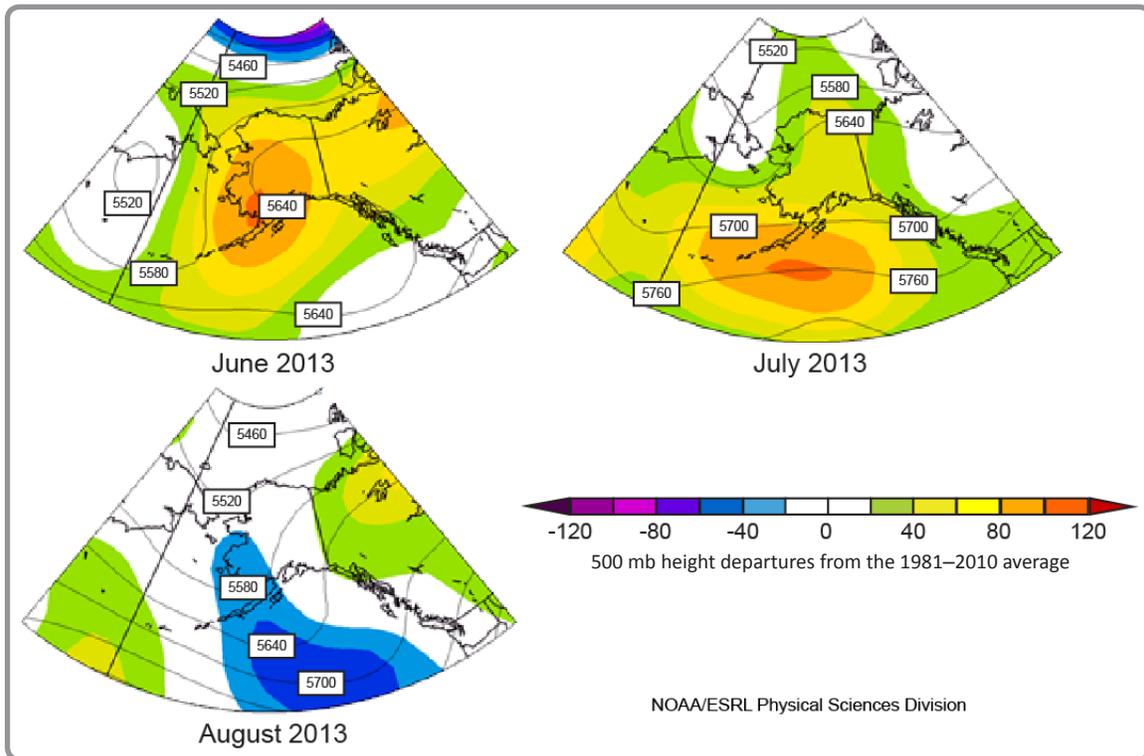
Alaska Seasonal and Subseasonal Anomalies Season: June–August 2013

	Temperature (Standardized Anomaly)				Precipitation (1981-2010 Percentile Rank)			
	June	July	August	JJA	June	July	August	JJA
Barrow	2.1	1.5	0.2	1.3	93%	89%	75%	95%
Bettles	1.1	-0.3	0.0	0.3	15%	34%	9%	5%
Fairbanks	3.2	0.8	1.2	2.0	5%	13%	62%	12%
Northway	2.4	0.8	1.2	2.0	30%	21%	50%	19%
Nome	0.4	-0.3	1.2	1.2	100%	54%	78%	90%
Bethel	1.6	0.2	1.2	0.6	52%	52%	49%	54%
Saint Paul	-0.6	-0.1	0.1	-0.3	60%	43%	71%	64%
Cold Bay	1.0	2.3	0.8	1.3	64%	88%	100%	95%
McGrath	2.4	0.0	0.8	1.3	20%	40%	36%	15%
Denali NP	2.6	0.2	1.0	1.4	2%	16%	47%	2%
Gulkana	2.5	1.7	1.0	2.1	0%	39%	52%	23%
Anchorage	2.0	1.6	0.4	1.6	13%	34%	91%	79%
Kodiak	2.2	2.3	0.6	1.8	33%	0%	100%	50%
Yakutat	1.5	0.8	1.5	1.4	23%	42%	35%	17%
Juneau	2.2	0.4	1.1	1.5	54%	55%	37%	37%
Annette	1.3	1.0	0.6	1.1	46%	30%	30%	21%

Color-fills represent temperature and precipitation values significantly above (red and green) or below (blue and orange) 1981-2010 normals.

Regional Highlight - Hot June, Active Wildfires, Regional Drought

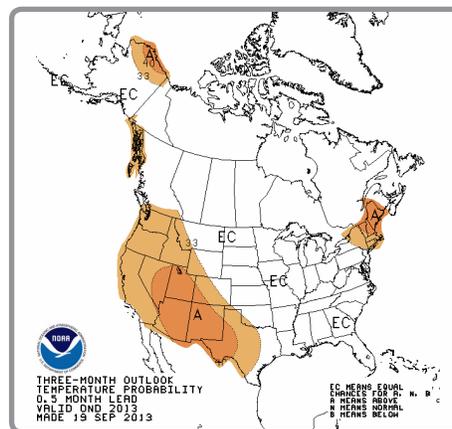
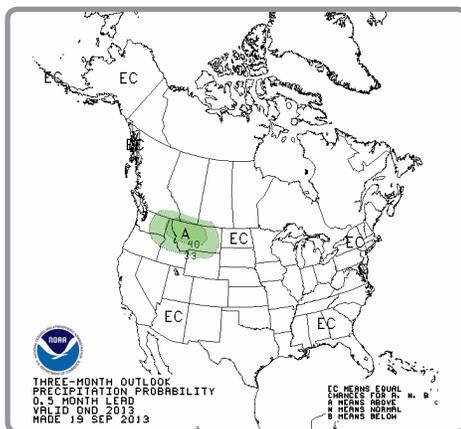
NCEP/NCAR Reanalysis 500 mb Geopotential Height (m) Composite Mean



Temperature Means

The mid-levels of the atmosphere during the summer months showed three distinct patterns. Warm high pressure centered over mainland Alaska in June, contributing to a heat wave near summer solstice that set or tied all-time record temperatures at half a dozen long-term climate sites. The highest official temperature was 97°F at Amber Lake southwest of Talkeetna, just three degrees from the all-time record for the state. In July, high pressure was dominant over the North Pacific but less so over mainland Alaska. Still, Barrow recorded the warmest combined June and July on record, and Anchorage tied the record for warmest combined June and July, including a record 15-day streak with each day at 70°F or higher. At Fairbanks, this was the second warmest June through August in more than a century of records. The season included 36 days with a high temperature of 80°F or higher, by far the most in any summer. After a warm first week of August, higher pressure was located more frequently over western Canada and more low pressure was found over western Alaska, resulting in more rain in most areas than occurred earlier in the summer.

Regional Outlook - for Fall 2013



Alaska Region Partners

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Alaska Climate Research Center
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Alaska Climate Science Center
<http://www.doi.gov/csc/alaska/index.cfm>

Cryosphere Today (University of Illinois),
<http://arctic.atmos.uiuc.edu/cryosphere/>

NOAA/NWS Weather Forecast Offices in Fairbanks,
Anchorage and Juneau

NOAA/NESDIS/NCDC
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