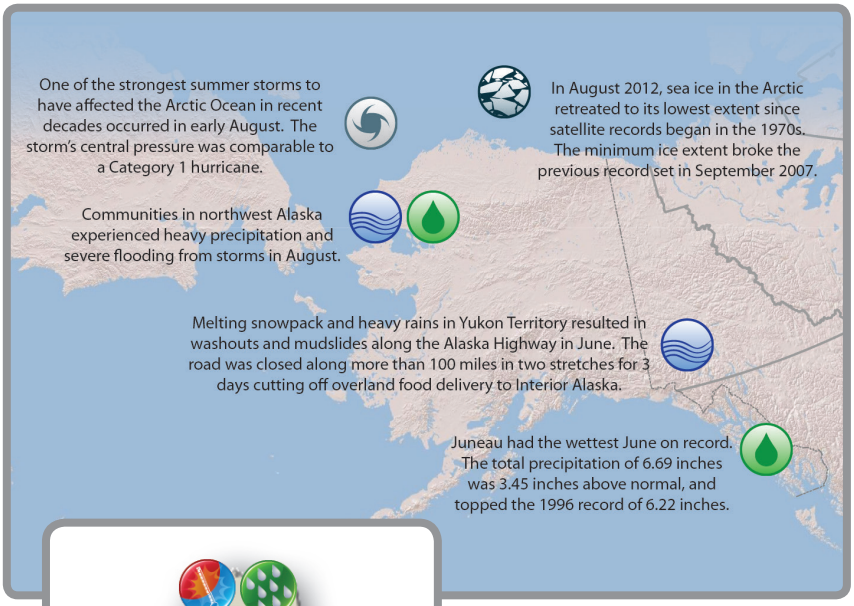
Quarterly Climate Impacts and Outlook

Alaska Region

September 2012

Regional - *Significant Events for June - August 2012*



AK summer temperatures were near average, while precipitation totals were 19.3% above average.

Highlights for Alaska

Exceptional Summer Storm Event

One of the strongest summer storms to have affected the Arctic Ocean in recent decades occurred in early August. The storm's central pressure was comparable to a Category-1 hurricane. The storm dispersed an already sparse ice cover, and waves from the storm propagated through the open water to the northern Alaskan coast, producing flooding in some villages.

Heavy Rainfall in Northwest Alaska

Extremely heavy rainfall affected northern and western Alaska in July and August. Nome's July precipitation was nearly triple the normal. During mid-August, parts of northwest Alaska experienced a once-in-100-year rainfall, with three inches of rain in a single day. The heavy rains caused air traffic delays and affected mining operations. In Kivalina, the landfill was flooded. Flooding also knocked out the water supply pipe, leaving the village without drinking water. As of the end of August, water service had not been restored to the village, and school still was not open.

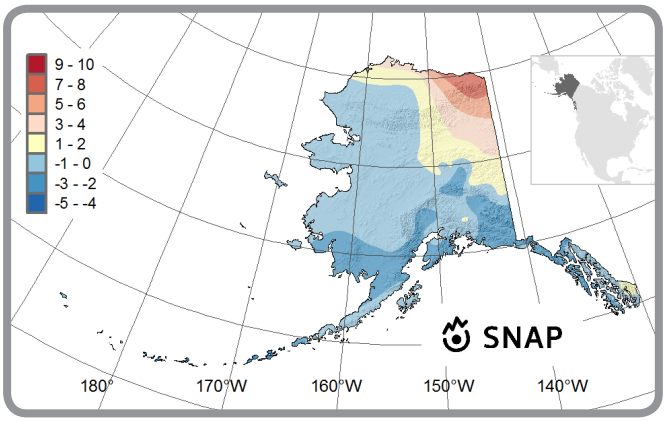
Flooding closes the Alaska Highway

Melting snowpack and heavy rains in the Yukon Territory resulted in washouts and mudslides along the Alaska Highway. The road was closed along more than 100 miles in two stretches for three days, cutting off overland food delivery to interior Alaska.

Regional - *Climate Overview for June - August 2012*

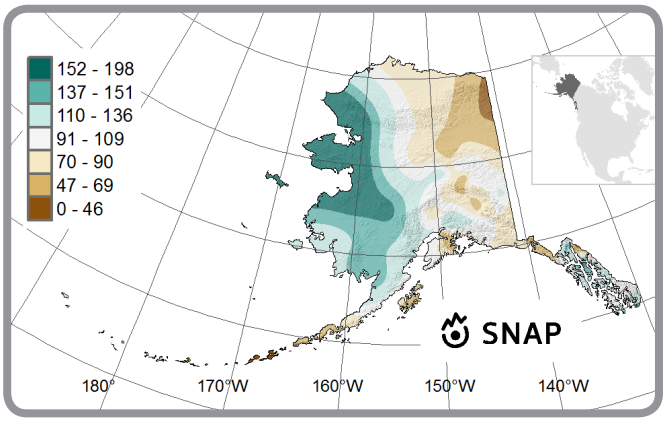
Alaska Temperature and Precipitation Normals

Departure from Normal Temperature (°F)
6/1/2012 -8/31/2012



Quarterly temperature departures were obtained by calculating the difference between the monthly mean temperature and the 30-year normal.

Percent of Normal Precipitation (%)
6/1/2012 - 8/31/2012



Quarterly precipitation percent of normal values were calculated to a percentage by dividing the quarterly precipitation by the quarterly 30-year normal.

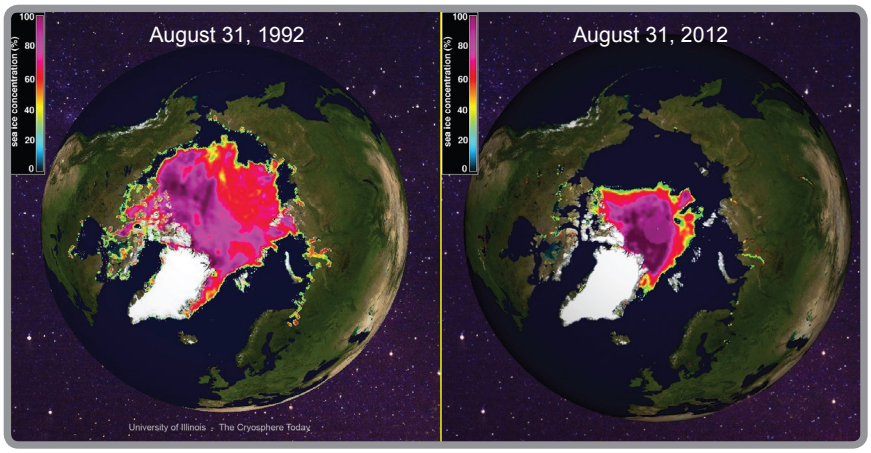
Contacts: James Partain (james.partain@noaa.gov)

Regional - *for June - August 2012*

Record Retreat of Arctic Sea Ice

During the summer of 2012, sea ice in the Arctic retreated to its lowest extent since satellite records began in the 1970s. The minimum ice extent broke the previous record set in 2007. The six lowest extents on record have occurred in the past six years. Nevertheless, isolated patches of sea ice interfered with exploratory oil drilling in the Chukchi Sea during the late summer.

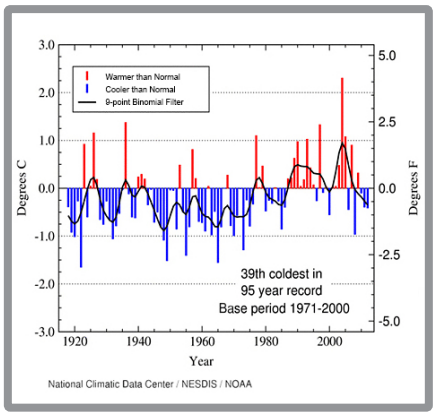
Arctic Sea Ice Comparison



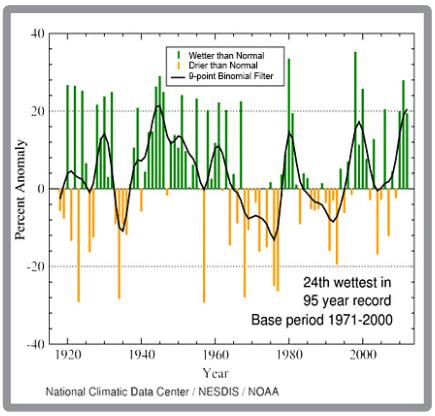
Regional Anomalies - *for Summer 2012*

Temperature and Precipitation Anomalies

Temperature Anomalies
June - August (1918-2012)



Precipitation Anomalies
June - August (1918-2012)



Alaska Region Partners

Alaska Center for Climate Assessment and Policy
www.accap.uaf.edu

Alaska Climate Research Center
http://climate.gi.alaska.edu/

Alaska Climate Science Center
http://www.doi.gov/csc/alaska/index.cfmg

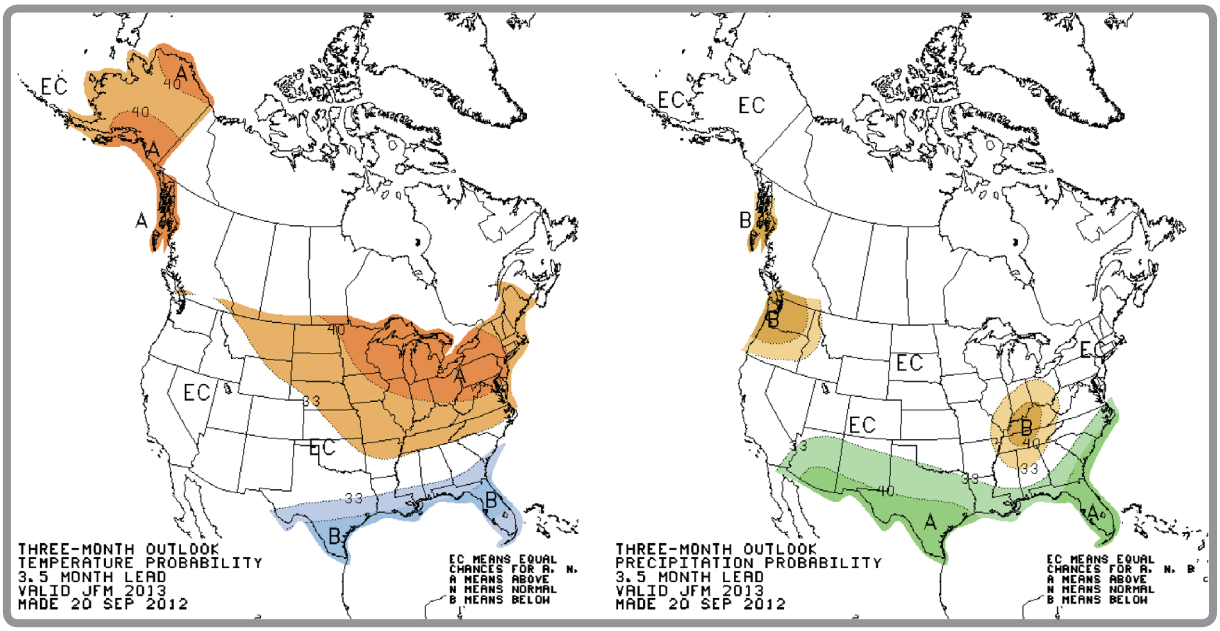
Cryosphere Today (University of Illinois),
http://arctic.atmos.uiuc.edu/cryosphere/

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

NOAA/NESDIS/NCDC
www.ncdc.noaa.gov

Scenarios Network for Alaska and Arctic Planning
www.snap.uaf.edu

Existing Climate Products Three Month (Seasonal) Outlooks



Contours/shading are odds of the most likely category of three:

- Above
- Normal
- Below, whose random odds are 1/3 each.
- "EC" = Equal Chances of each category.

Source:
www.cpc.ncep.noaa.gov