

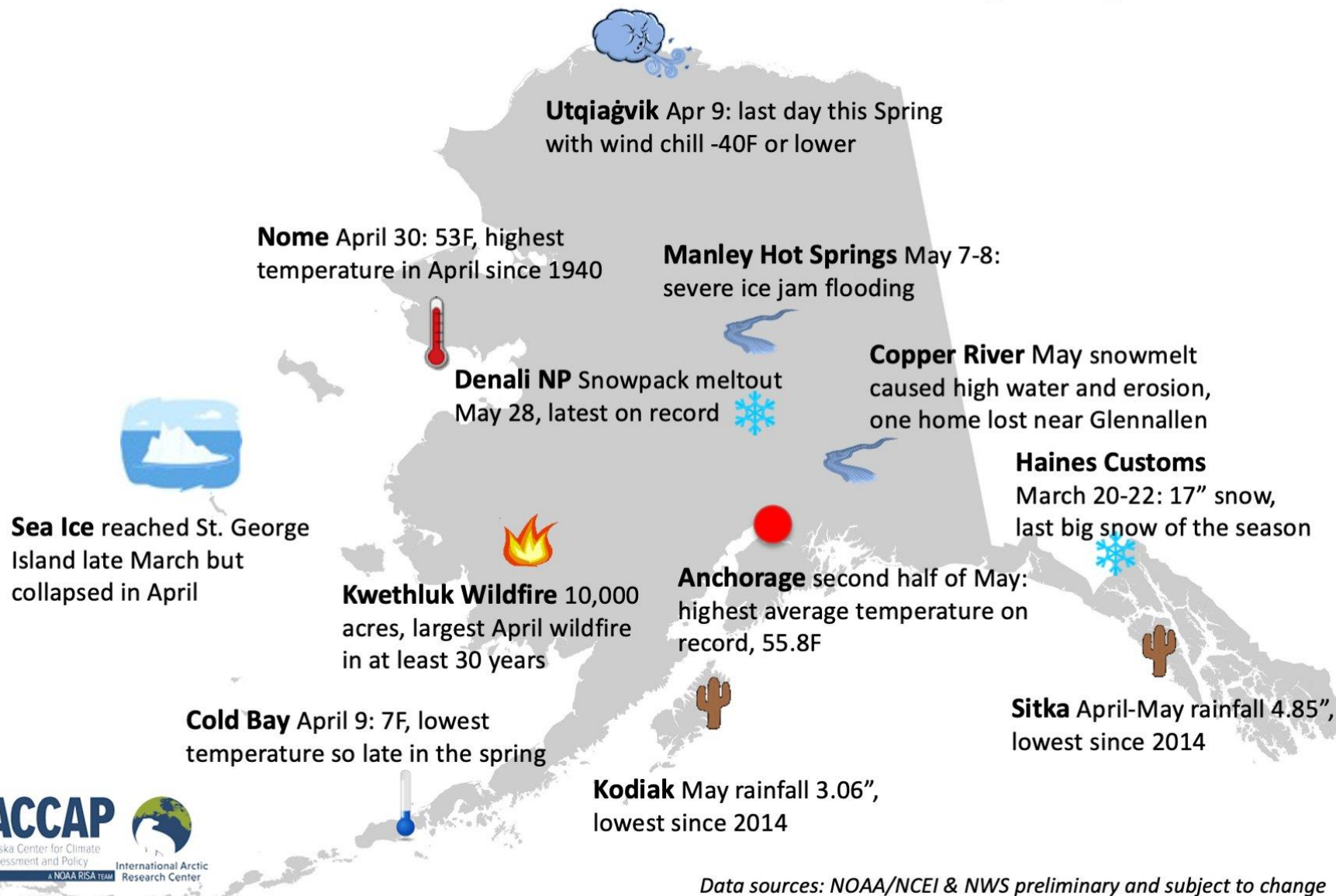
Circumpolar One Health Spring 2022 Climate Review and Summer 2022 Outlook

Rick Thoman

Alaska Center for Climate Assessment and Policy
University of Alaska Fairbanks

Spring 2022

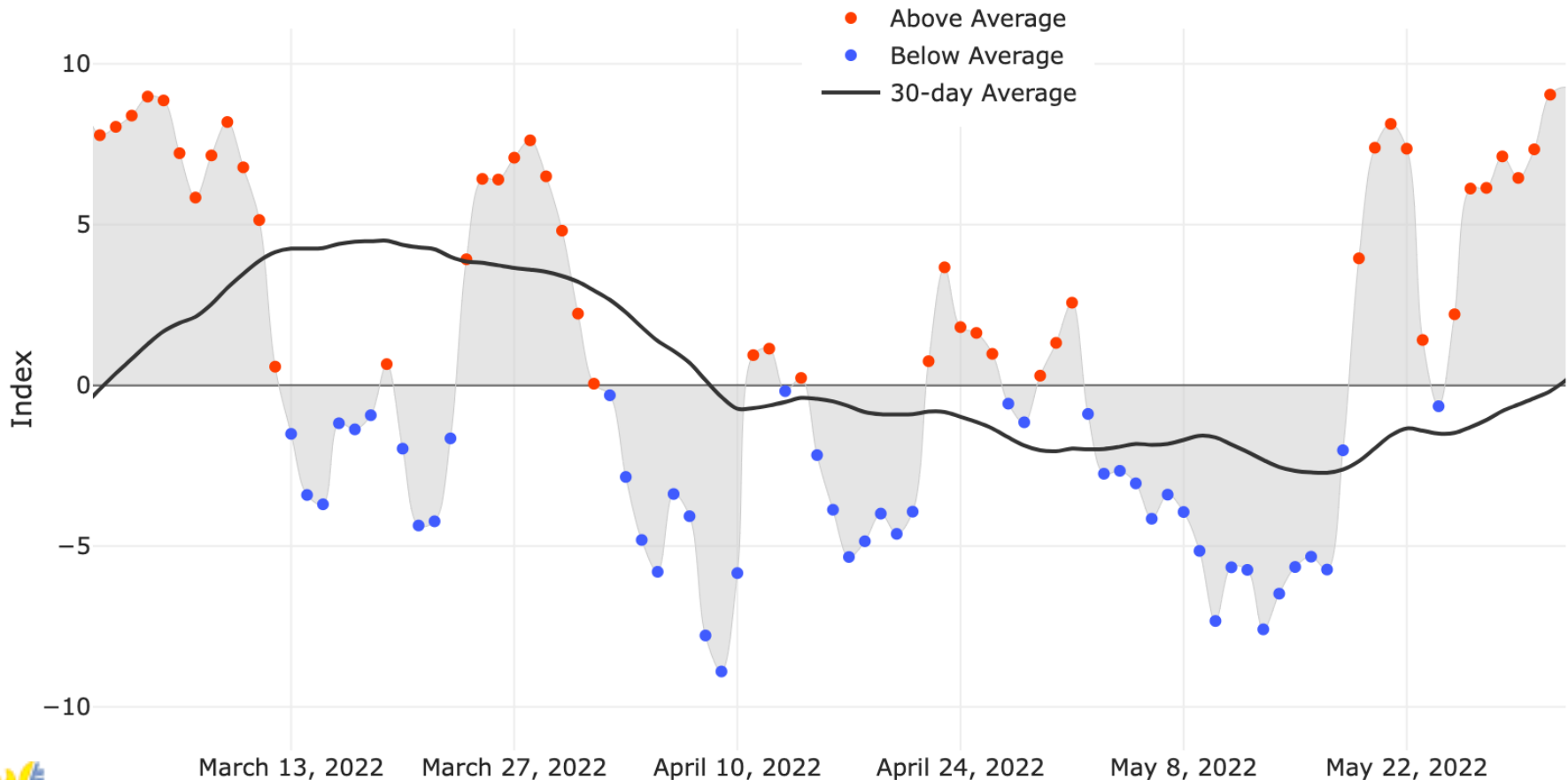
Alaska Weather & Climate Highlights



Data sources: NOAA/NCEI & NWS preliminary and subject to change

Alaska Daily Temperature Index

Alaska Statewide Temperature Index
March 1-May 31, 2022

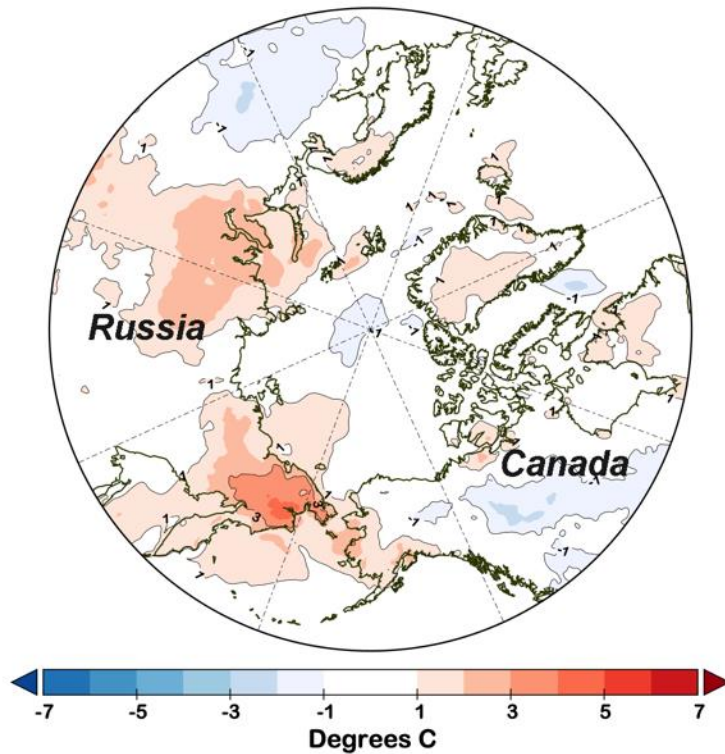


Online: <http://accap.uaf.edu/tools/statewide-temperature-index>



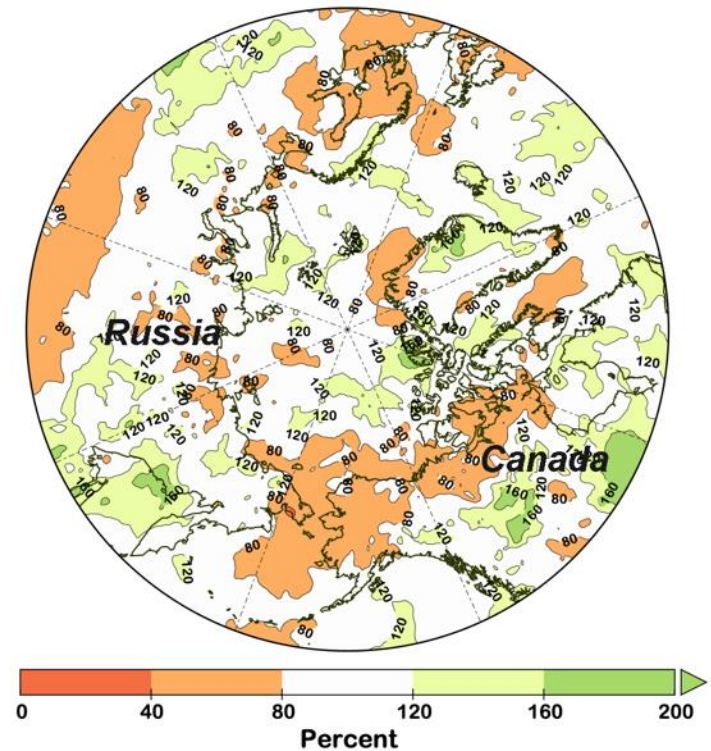
Spring 2022 Arctic-wide

Average Temperature: Departure from Normal
Spring (March through May) 2022



ERA5 courtesy of ECMWF/Copernicus

Total Precipitation: Percent of Normal
Spring (March through May) 2022



ERA5 courtesy of ECMWF/Copernicus

Temperature Departures from Average

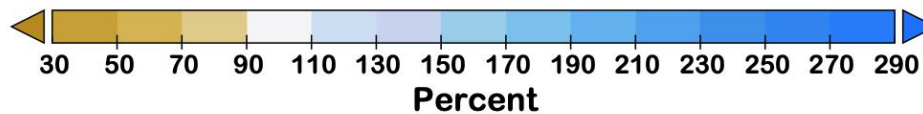
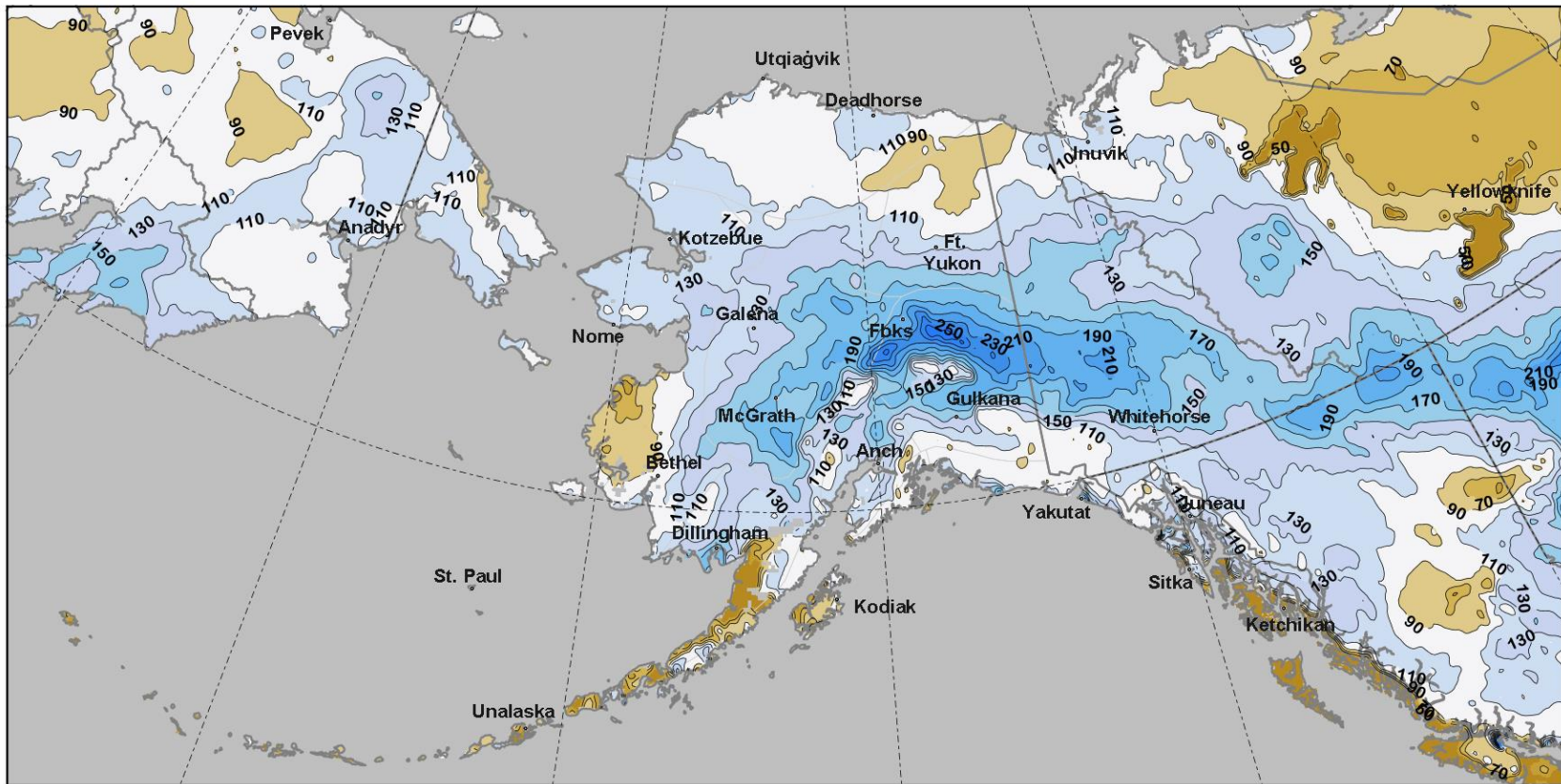
Precipitation Percent of Average

Data: ERA5 courtesy of EMCWF/Copernicus
1991-2020 Baseline

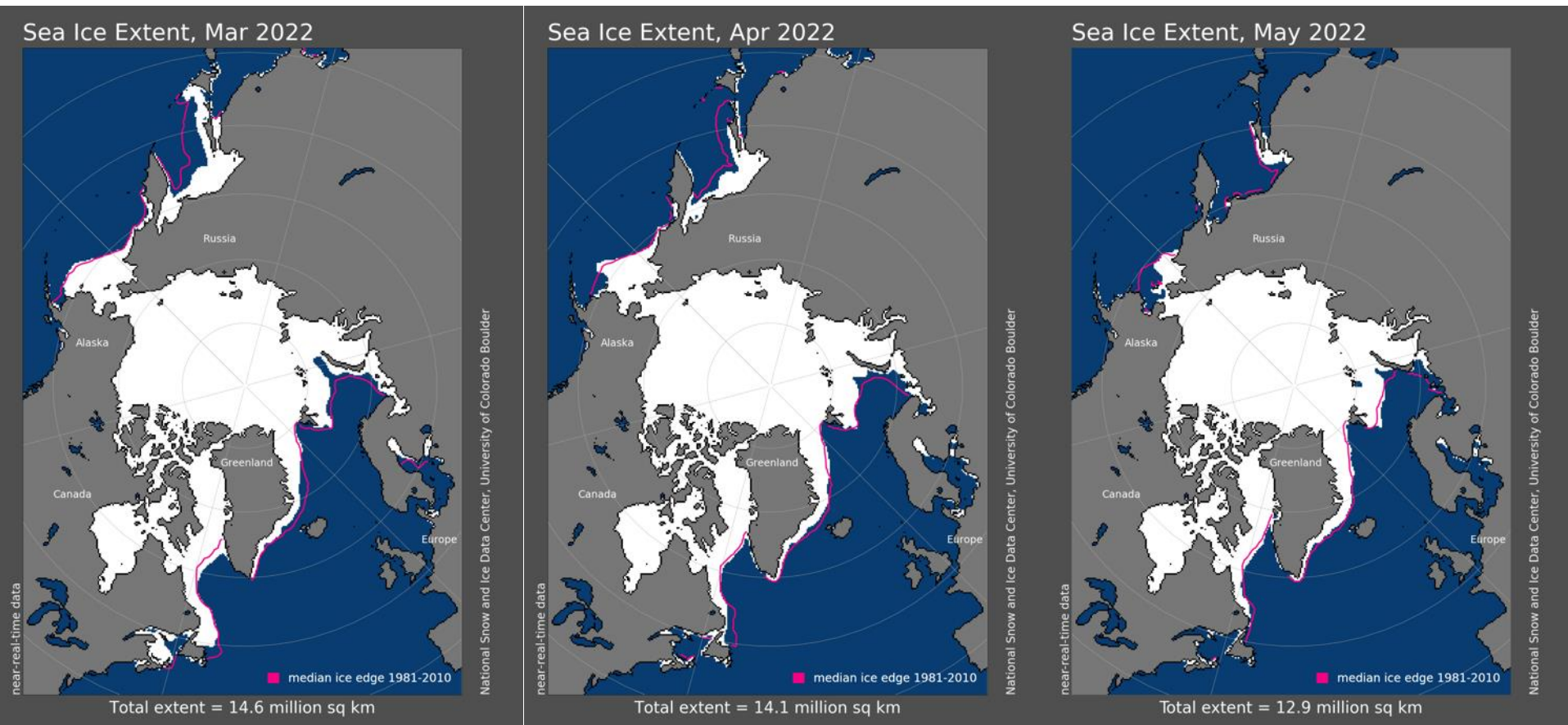


Spring Snowpack

Snowpack: Snow Water Equivalent Percent of Median
March 2022



Arctic Sea Ice Extent: Spring 2022



9th lowest

11th lowest

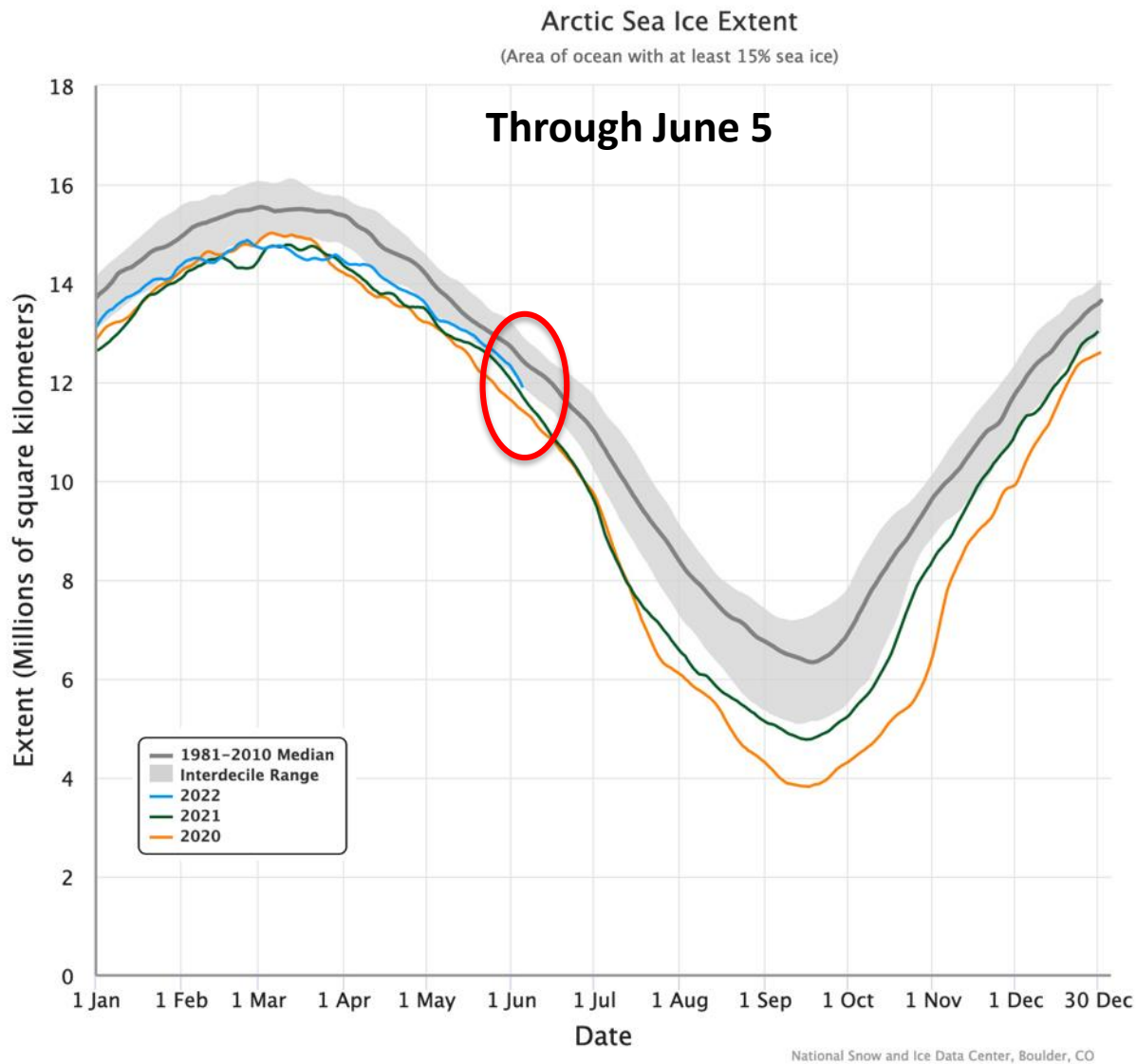
14th lowest

Since 1979

Maximum Arctic-wide extent Feb 25th, second earliest in satellite era

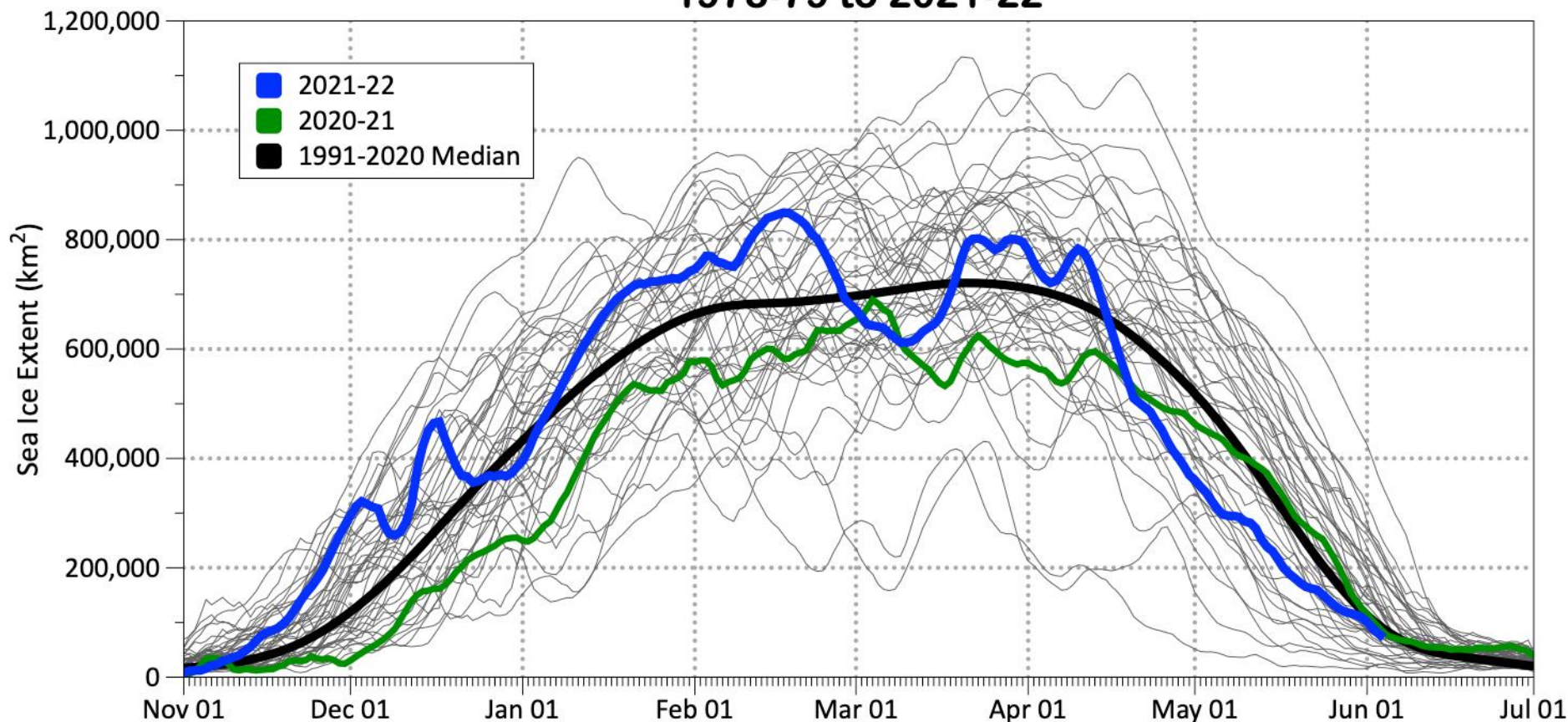


Daily Arctic Sea Ice Extent



Bering Sea Ice Extent

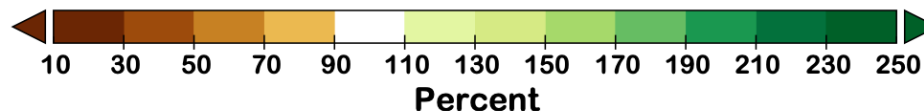
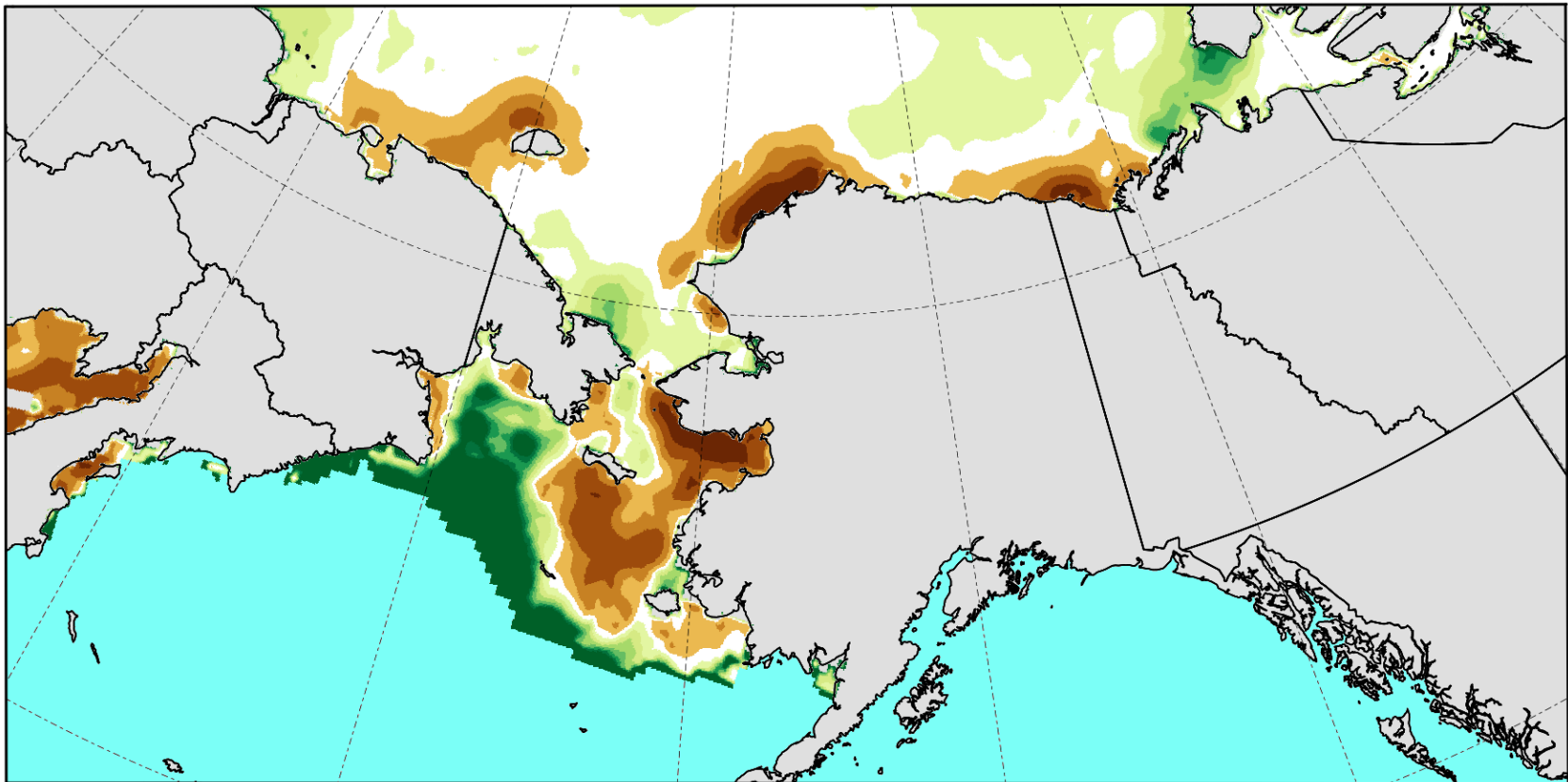
**Bering Sea Daily Ice Extent
1978-79 to 2021-22**



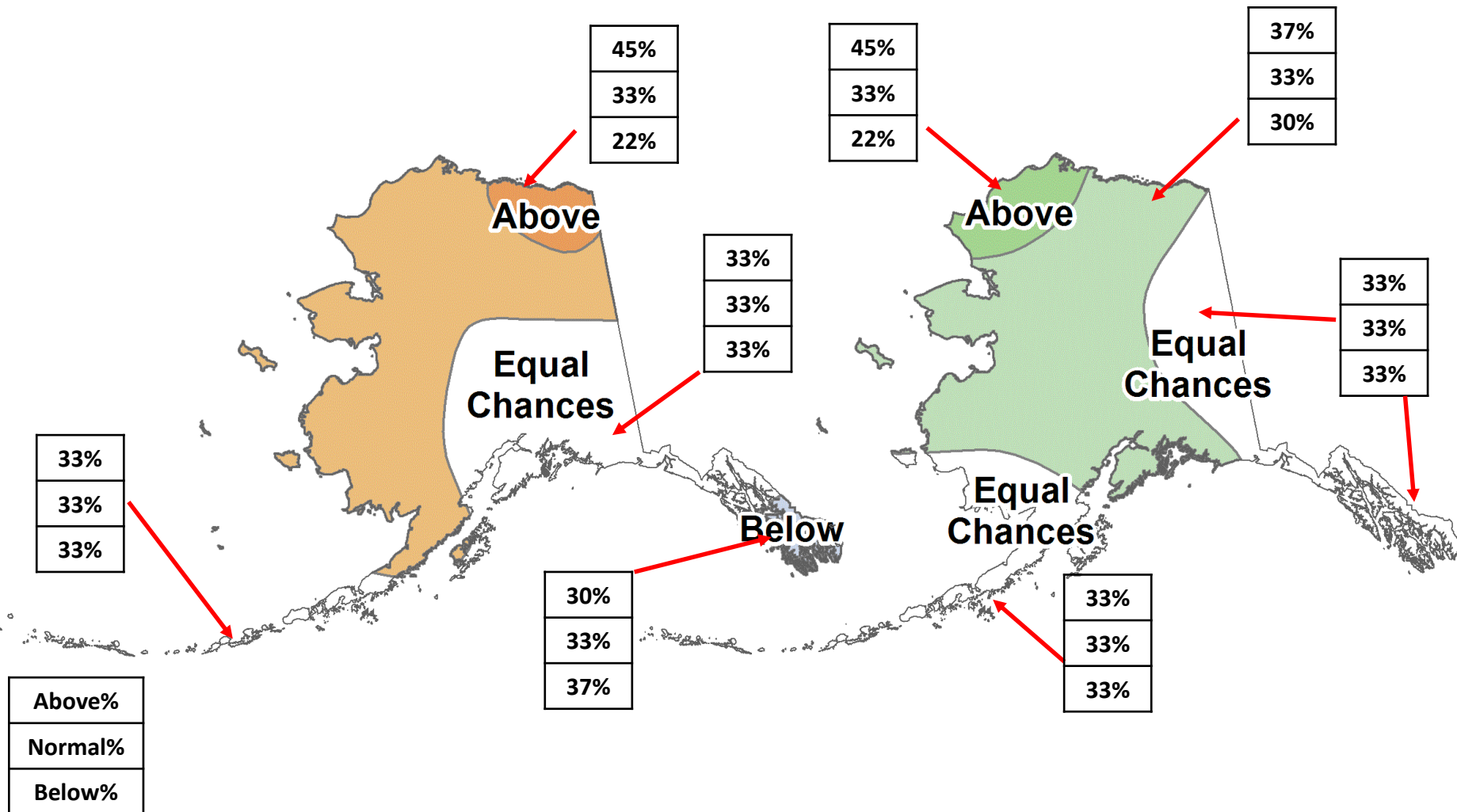
End of March Sea Ice Thickness

Sea Ice Thickness: Percent of Median

March 25-31, 2022



CPC June-August 2022 Outlook



Summer 2022

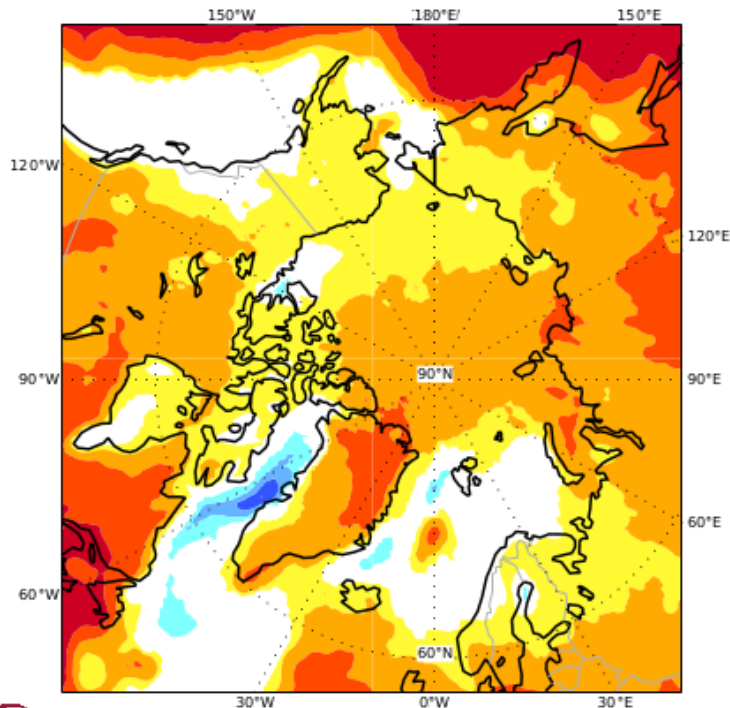
Arctic Temperature and Precipitation Outlook

C3S multi-system seasonal forecast

Prob(most likely category of 2m temperature)

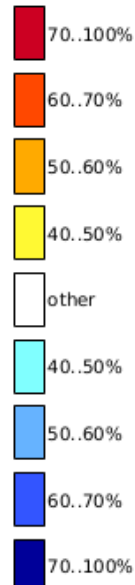
Nominal forecast start: 01/05/22

Unweighted mean



JJA 2022

above upper tercile



below lower tercile

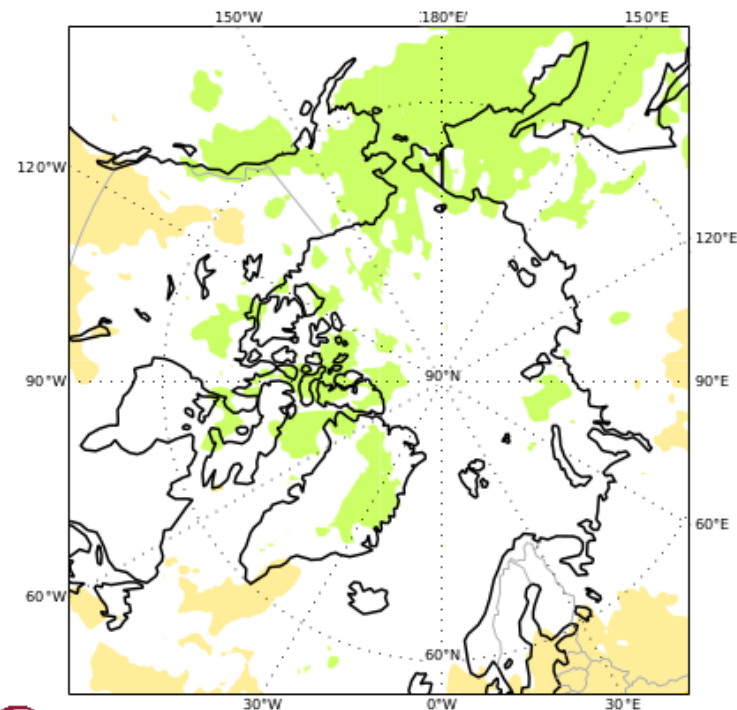
C3S multi-system seasonal forecast

Prob(most likely category of precipitation)

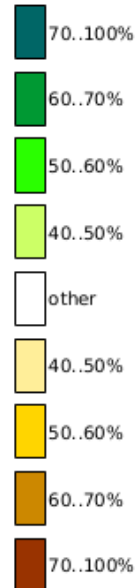
Nominal forecast start: 01/05/22

Unweighted mean

JJA 2022



above upper tercile



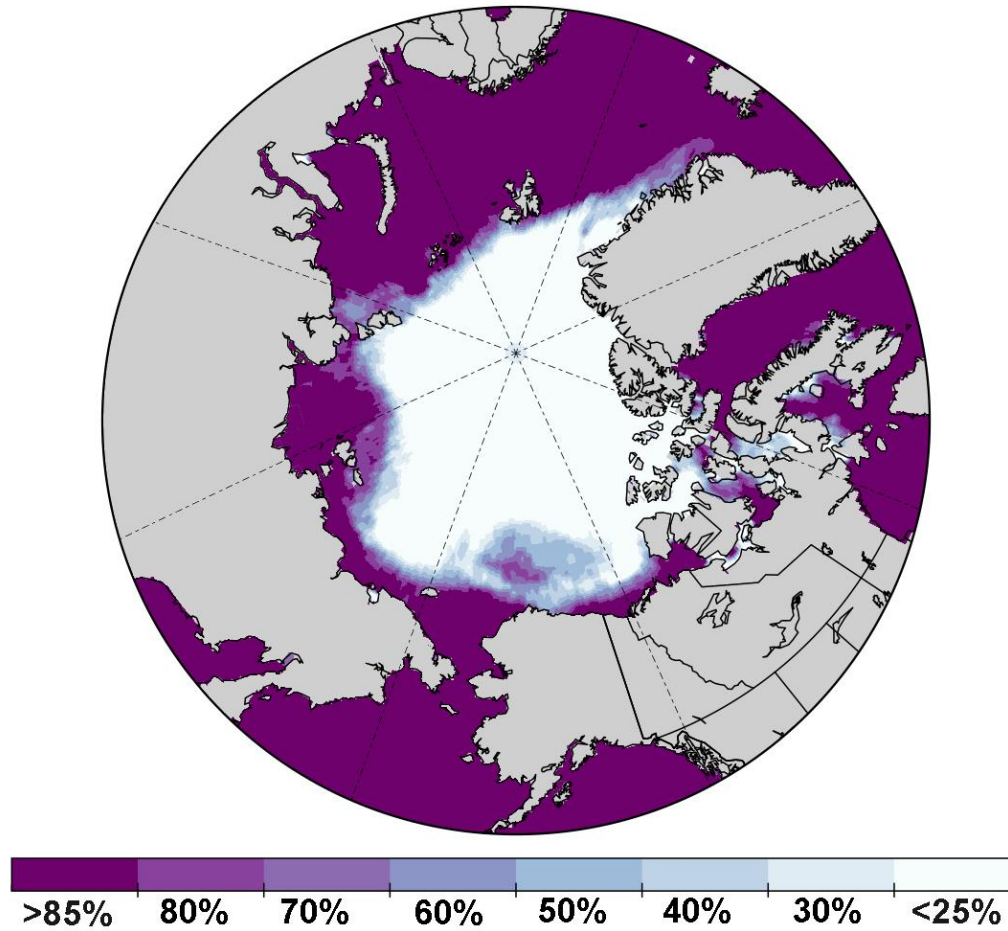
below lower tercile

Outlooks courtesy Copernicus C3S (Climate Change Service)

Sea Ice Outlook: August Open Water

Chances of Open Water

August 2022



Data: NOAA/Climate Prediction Center Exp. Sea Ice Outlook



Thanks very much



Manley Hot Springs, May 7, 2022
Photo: Alaska State Troopers

