

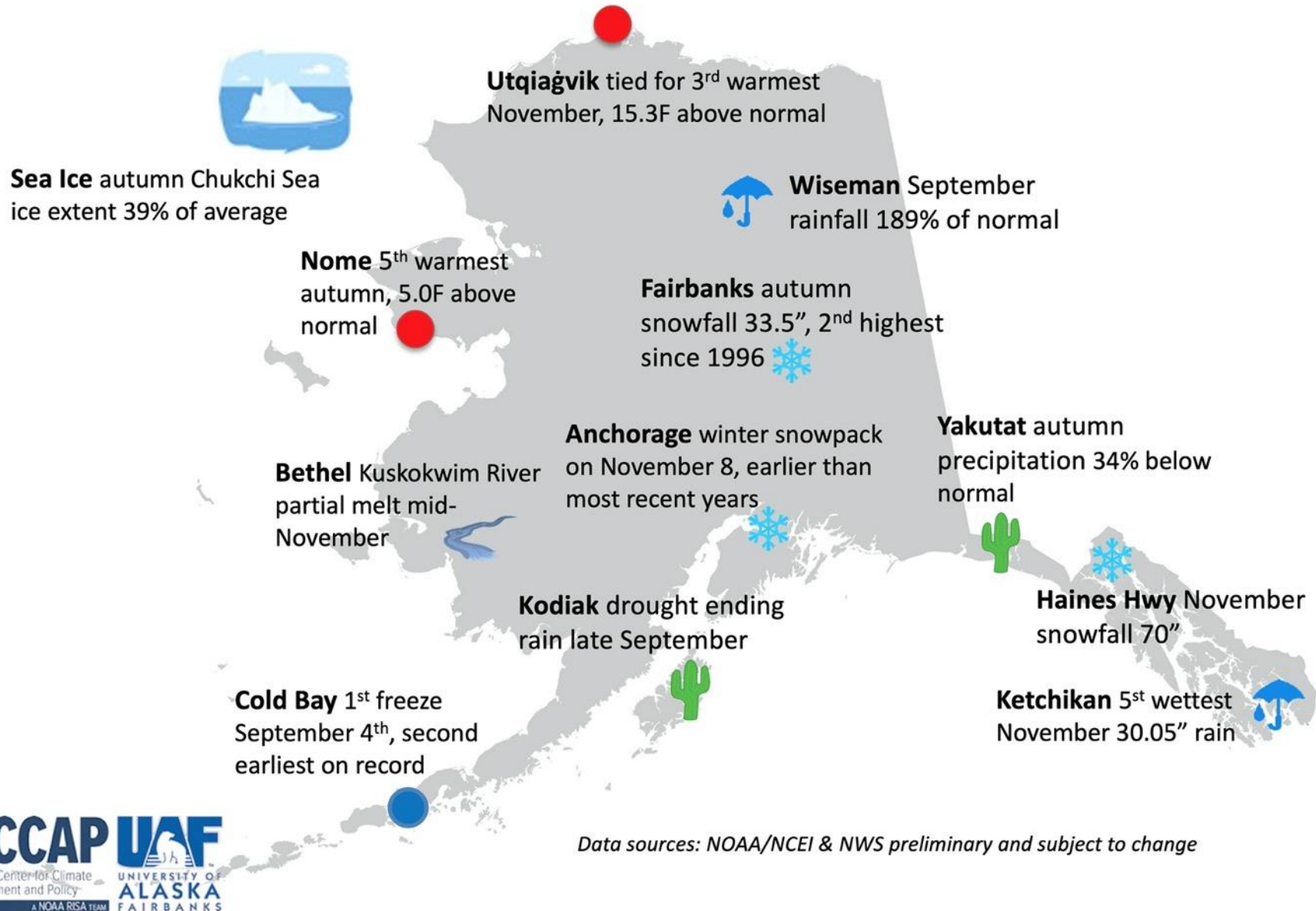
Circumpolar One Health Autumn 2020 Climate Review and Winter 2020-21 Outlook

Rick Thoman

Alaska Center for Climate Assessment and Policy
University of Alaska Fairbanks

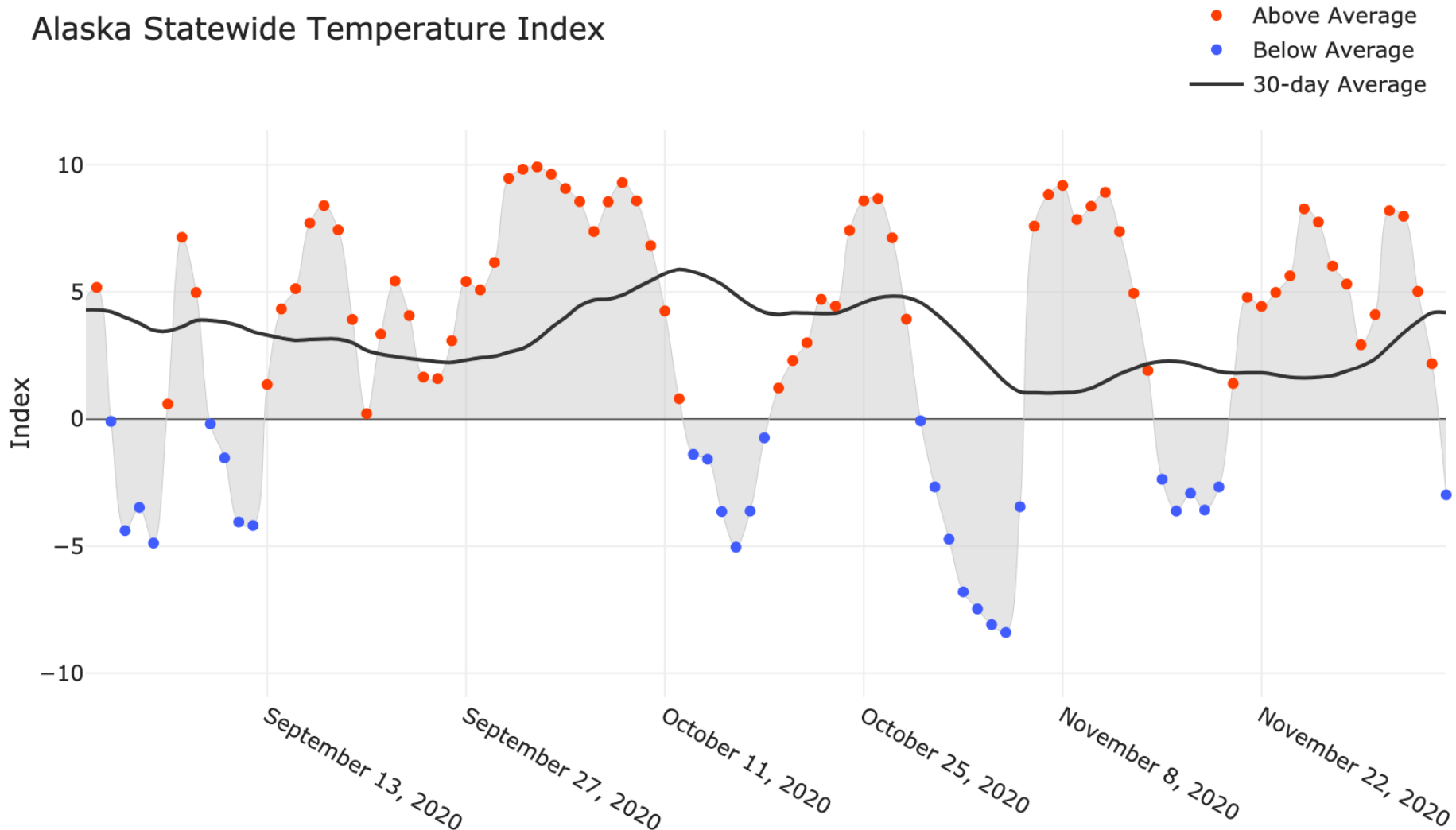
Autumn 2020

Alaska Weather & Climate Highlights

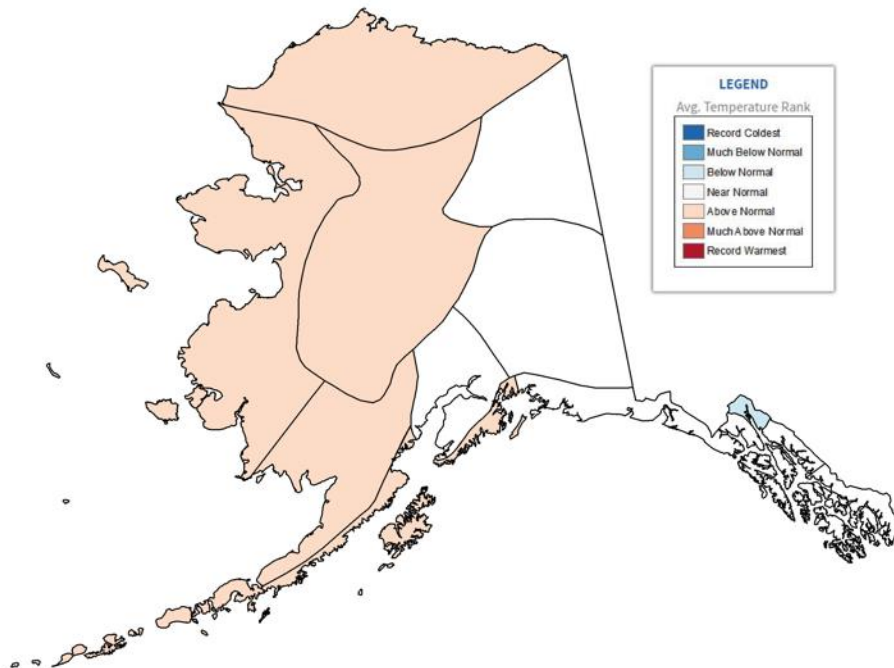


Alaska Daily Temperature Index

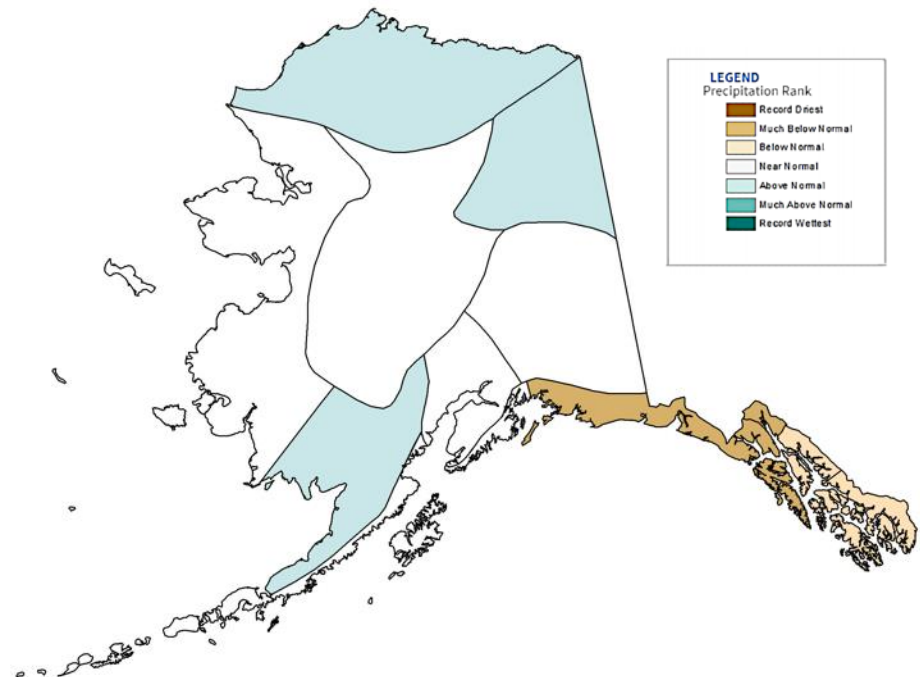
Alaska Statewide Temperature Index



Alaska Regional Autumn (Sep-Nov) 2020



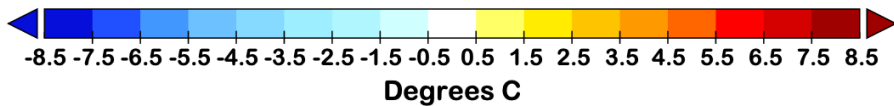
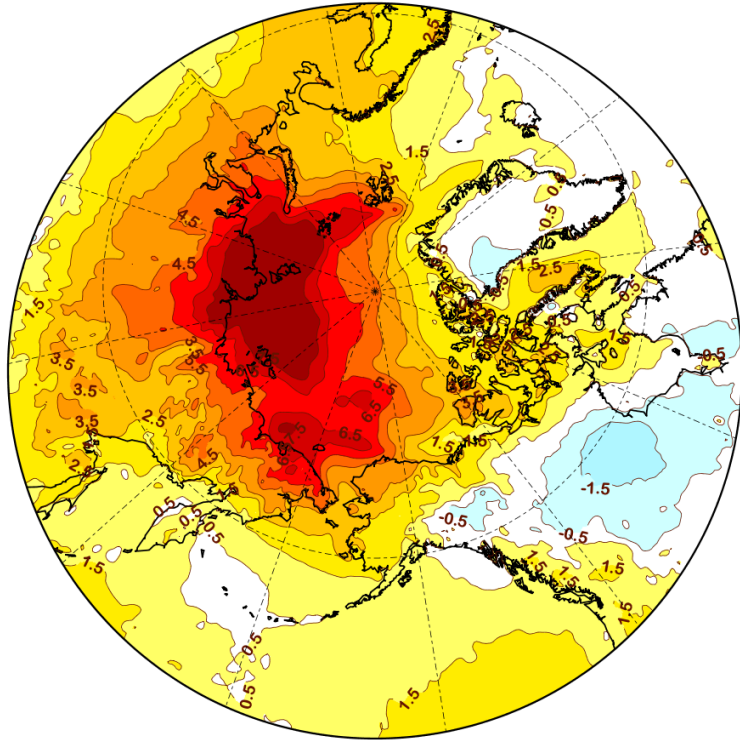
Temperatures



Precipitation

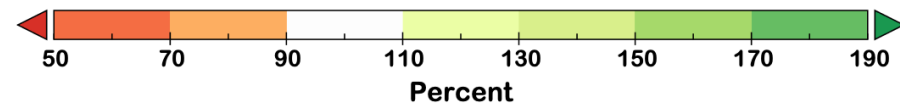
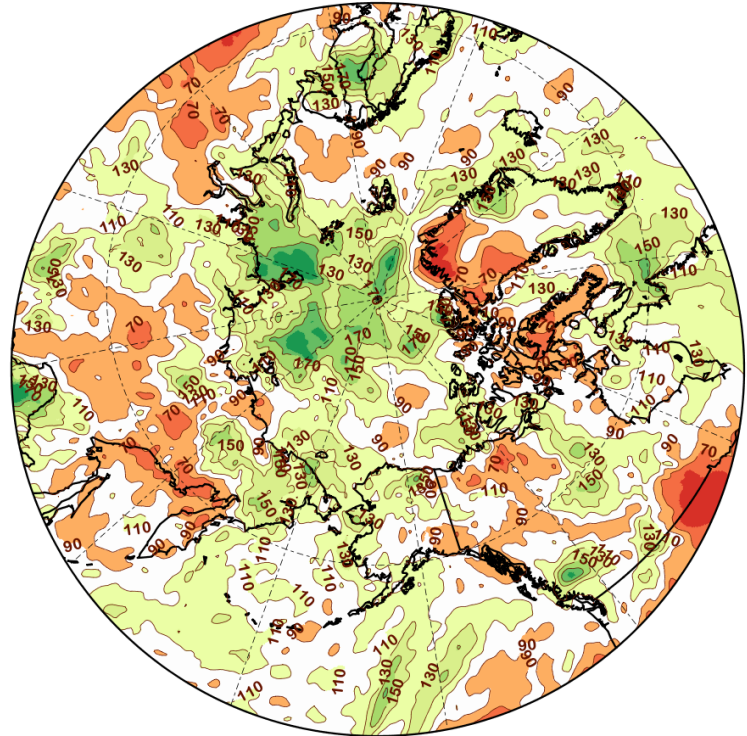
Autumn 2020 Arctic-wide

Temperature Departure from Average
September to November 2020



Temperature Departures from Average

Total Precipitation: Percent of Normal
September to November 2020



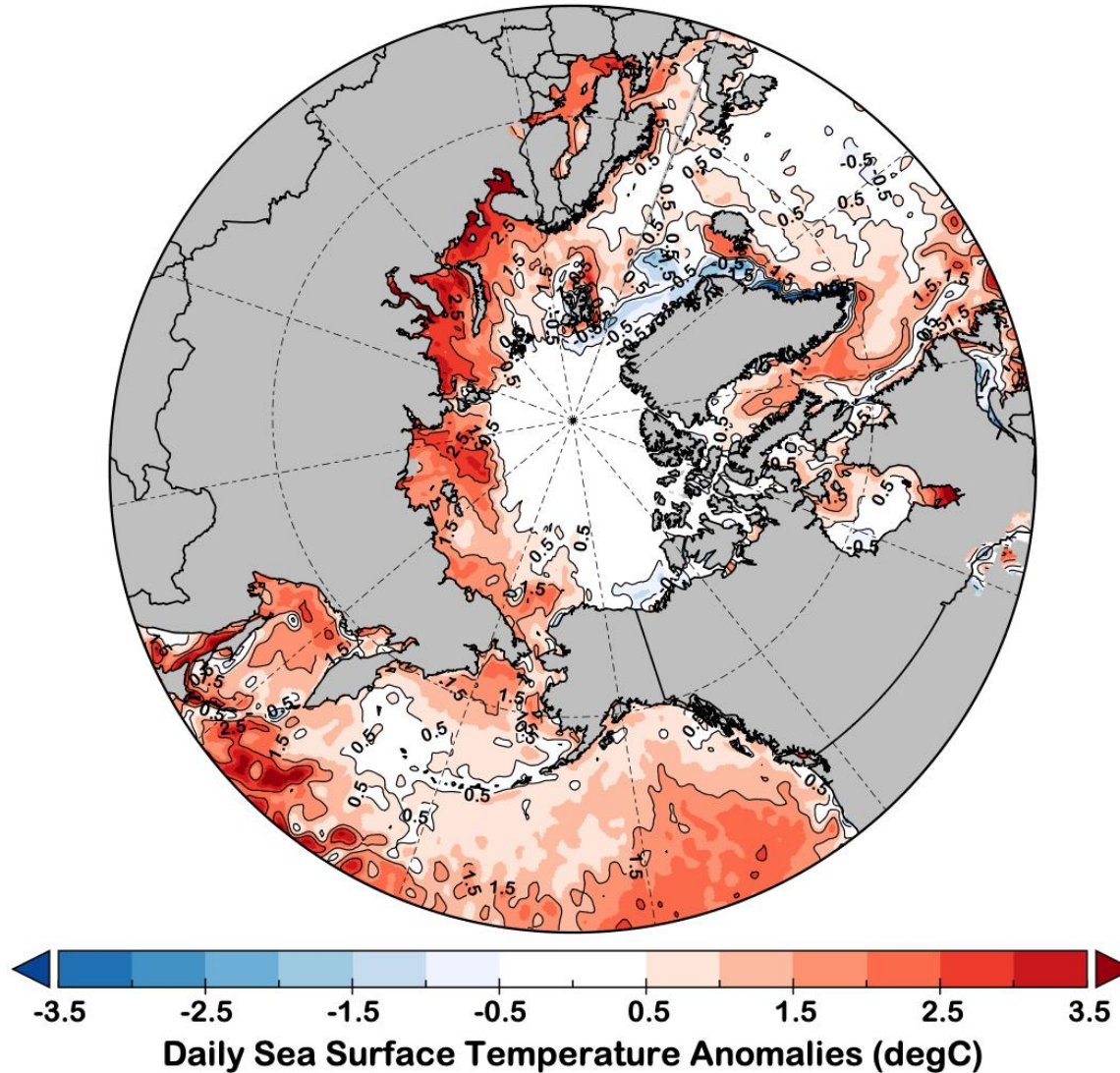
Precipitation Departures from Average

Data: ERA5 courtesy of EMCWF/Copernicus
1981-2010 Baseline

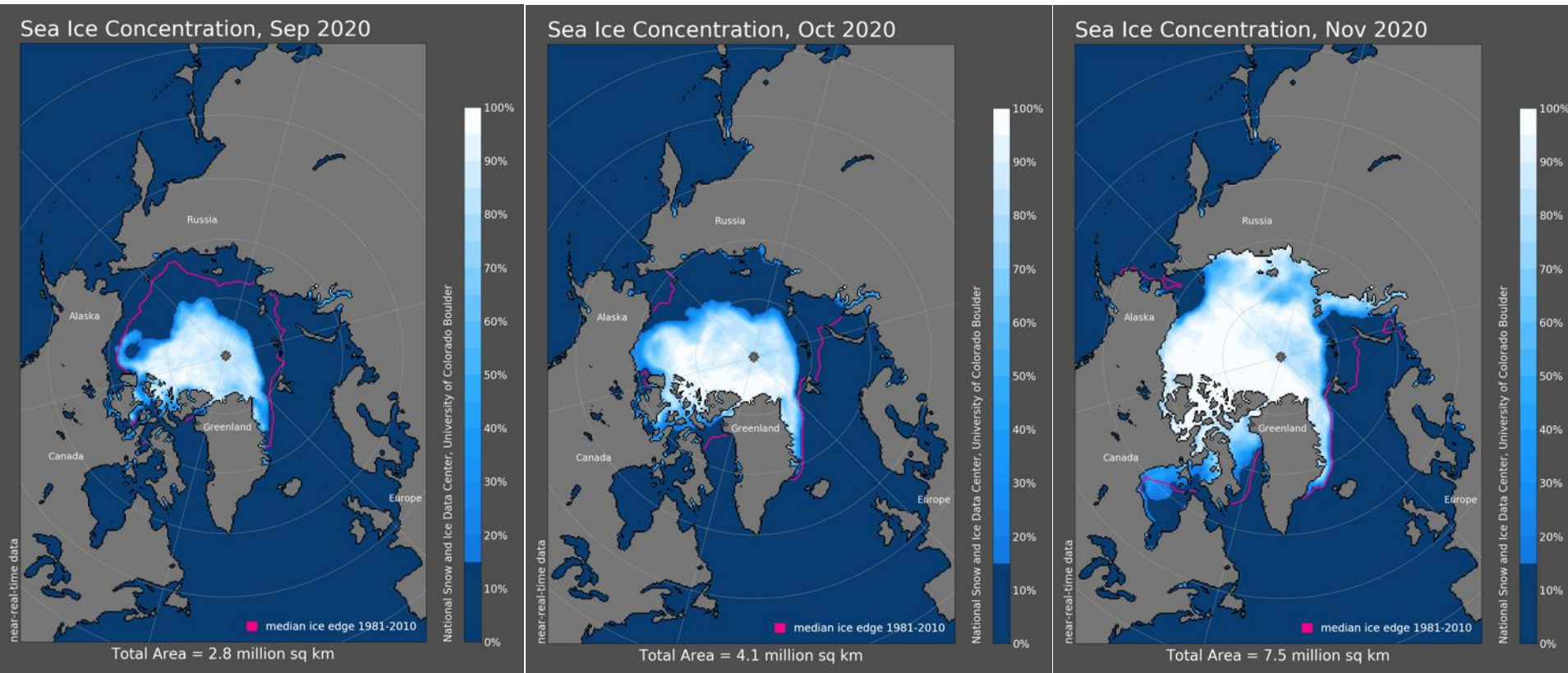


Autumn 2020 Ocean Temperatures

Daily Sea Surface Temperature Anomalies



Sea Ice Autumn 2020



2nd lowest

1st lowest

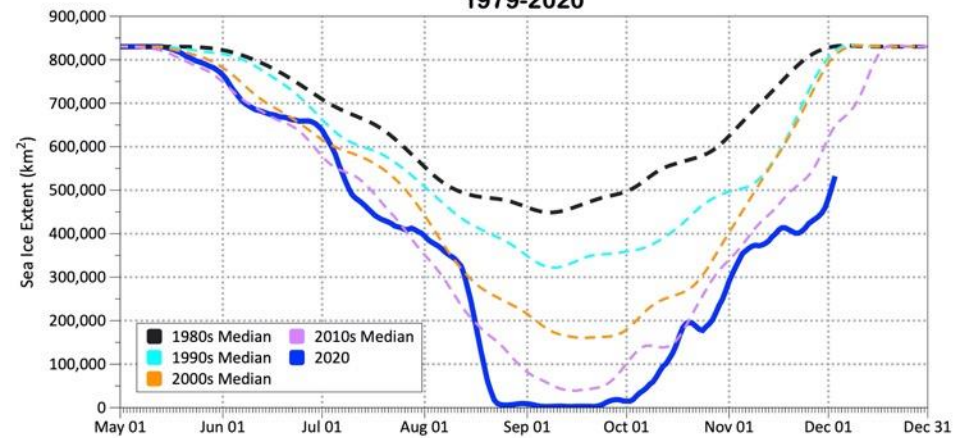
2nd lowest

Since 1979



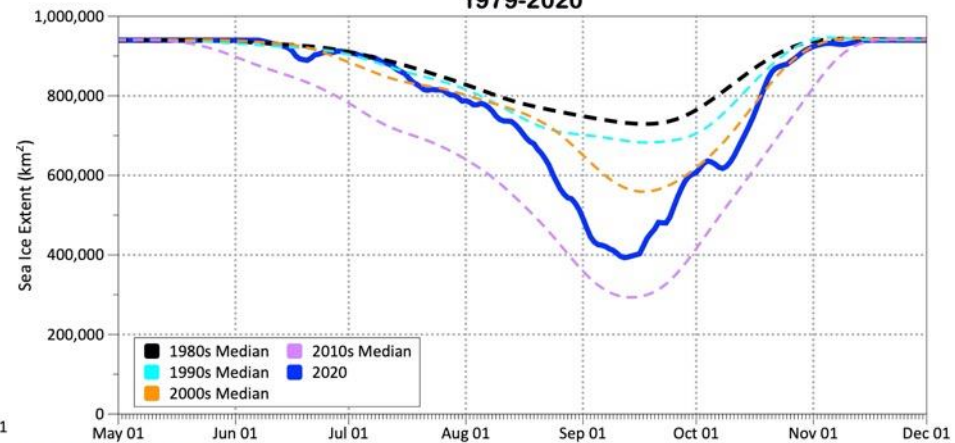
Daily Chukchi & Beaufort Seas Ice Extent

Chukchi Sea Daily Ice Extent
1979-2020



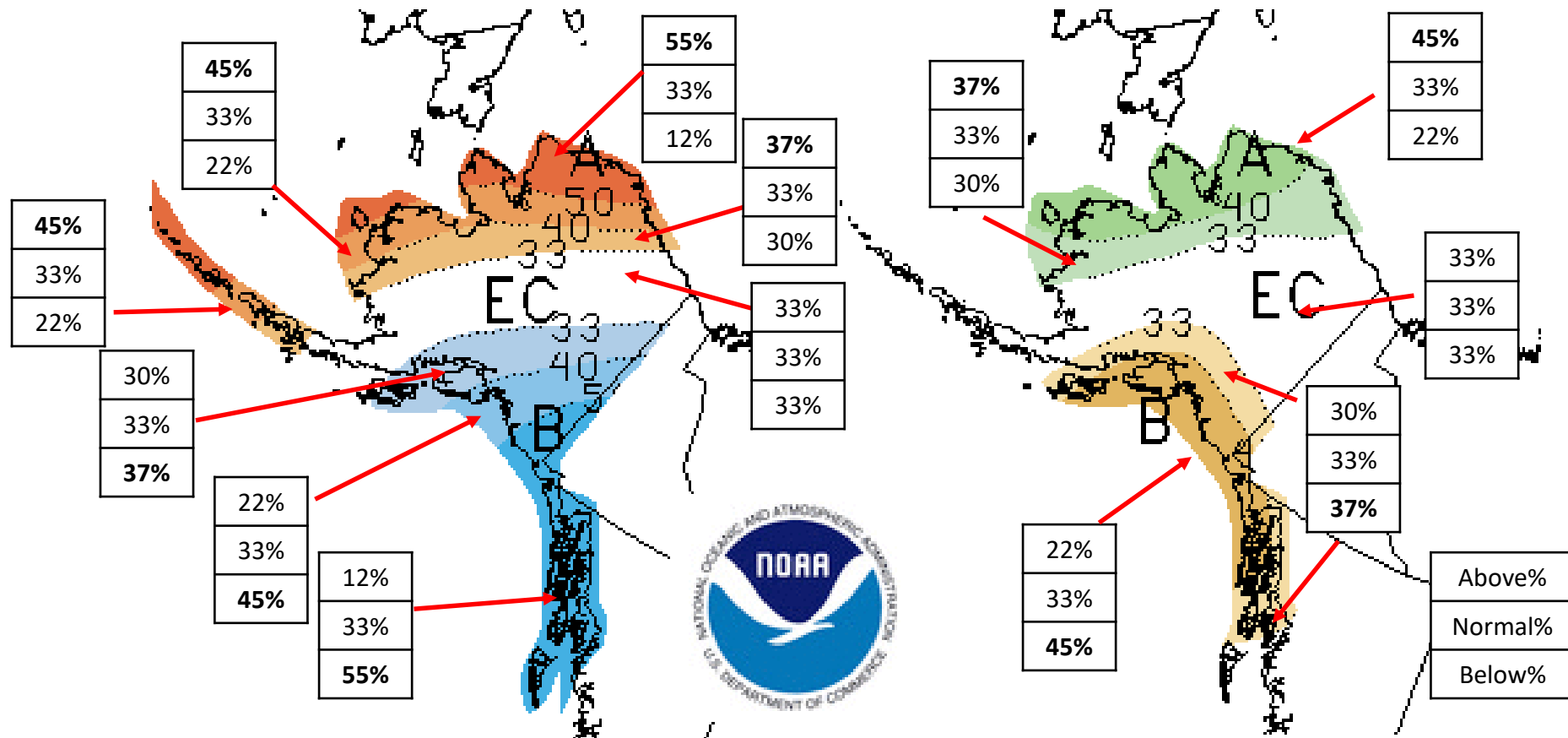
Data source: NSIDC Sea Ice Index, Version 3
Updated through December 3, 2020

Beaufort Sea Daily Ice Extent
1979-2020



Data source: NSIDC Sea Ice Index, Version 3

CPC December 2020 to February 2021 Outlook



THREE-MONTH OUTLOOK
TEMPERATURE PROBABILITY
0.5 MONTH LEAD
VALID DJF 2020
MADE 19 NOV 2020

THREE-MONTH OUTLOOK
PRECIPITATION PROBABILITY
0.5 MONTH LEAD
VALID DJF 2020
MADE 19 NOV 2020

Winter 2020

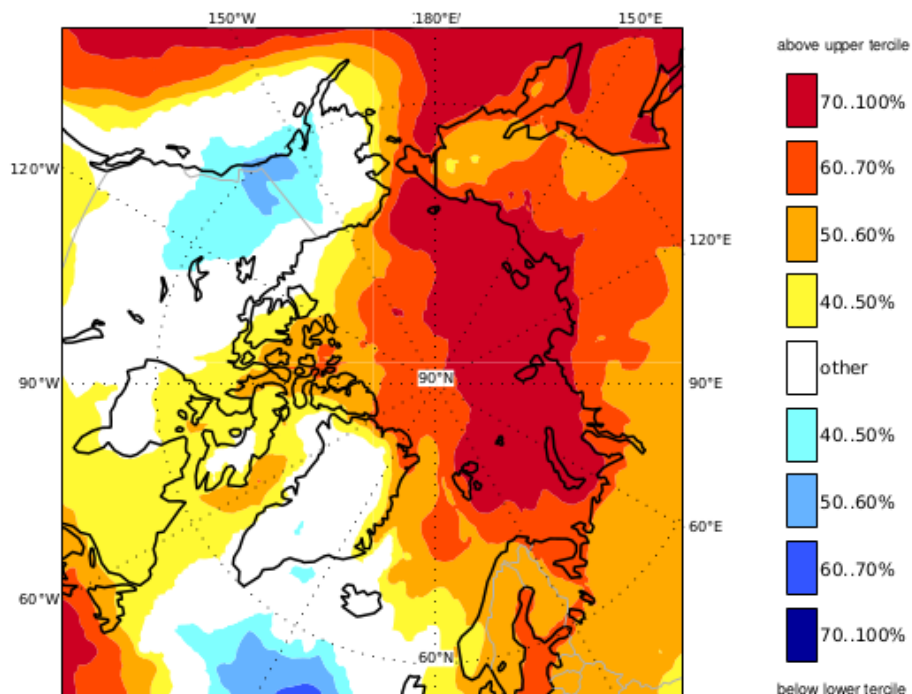
Arctic Temp and Pcpn Outlook

C3S multi-system seasonal forecast

Prob(most likely category of 2m temperature)

Nominal forecast start: 01/11/20

Unweighted mean

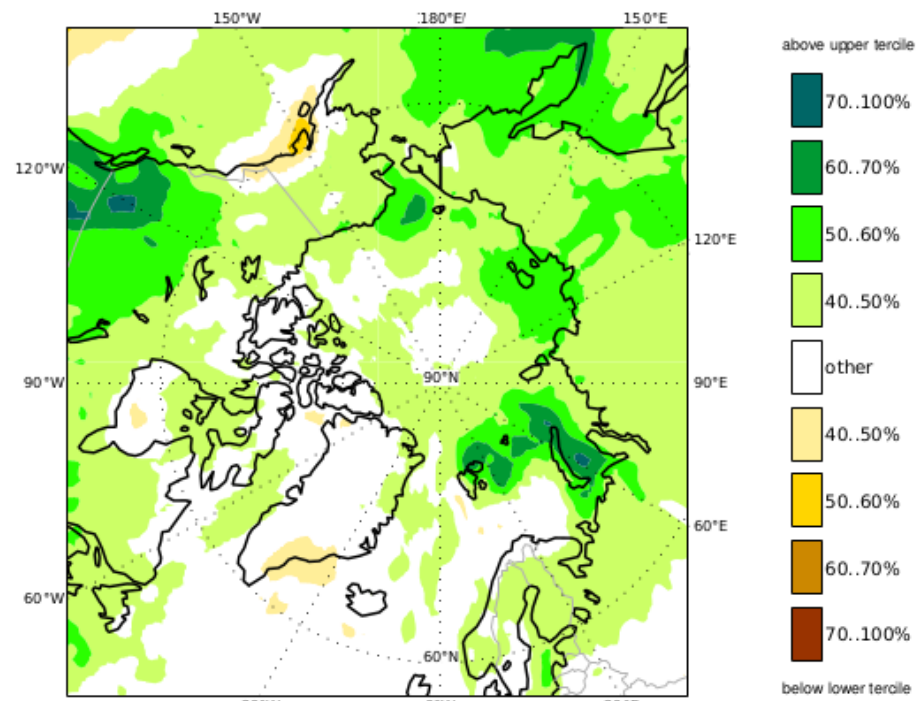


C3S multi-system seasonal forecast

Prob(most likely category of precipitation)

Nominal forecast start: 01/11/20

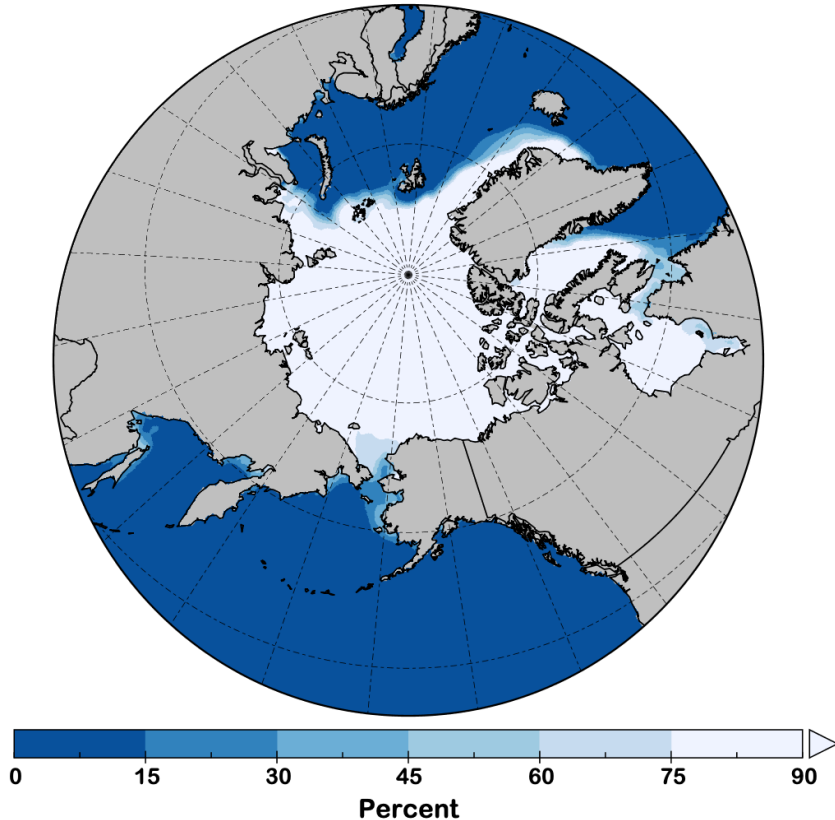
Unweighted mean



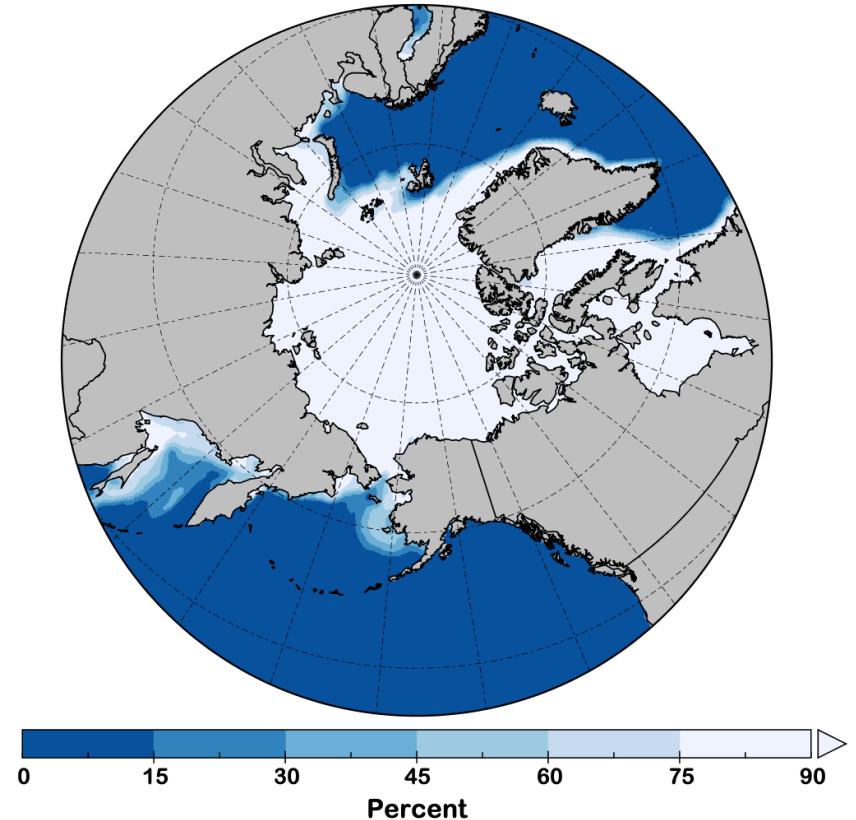
Outlooks courtesy Copernicus C3S (Climate Change Service)

Winter 2020-21 Sea Ice Outlook

Average Sea Ice Concentration Outlook
December 2020



Average Sea Ice Concentration Outlook
February 2020



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



Landslide near Klawock

October 26, 2020



Photo credit: Sam Sawyer

