



LEO Alaska Webinar

Summer 2022 Climate Review and Autumn 2022 Outlook

Rick Thoman

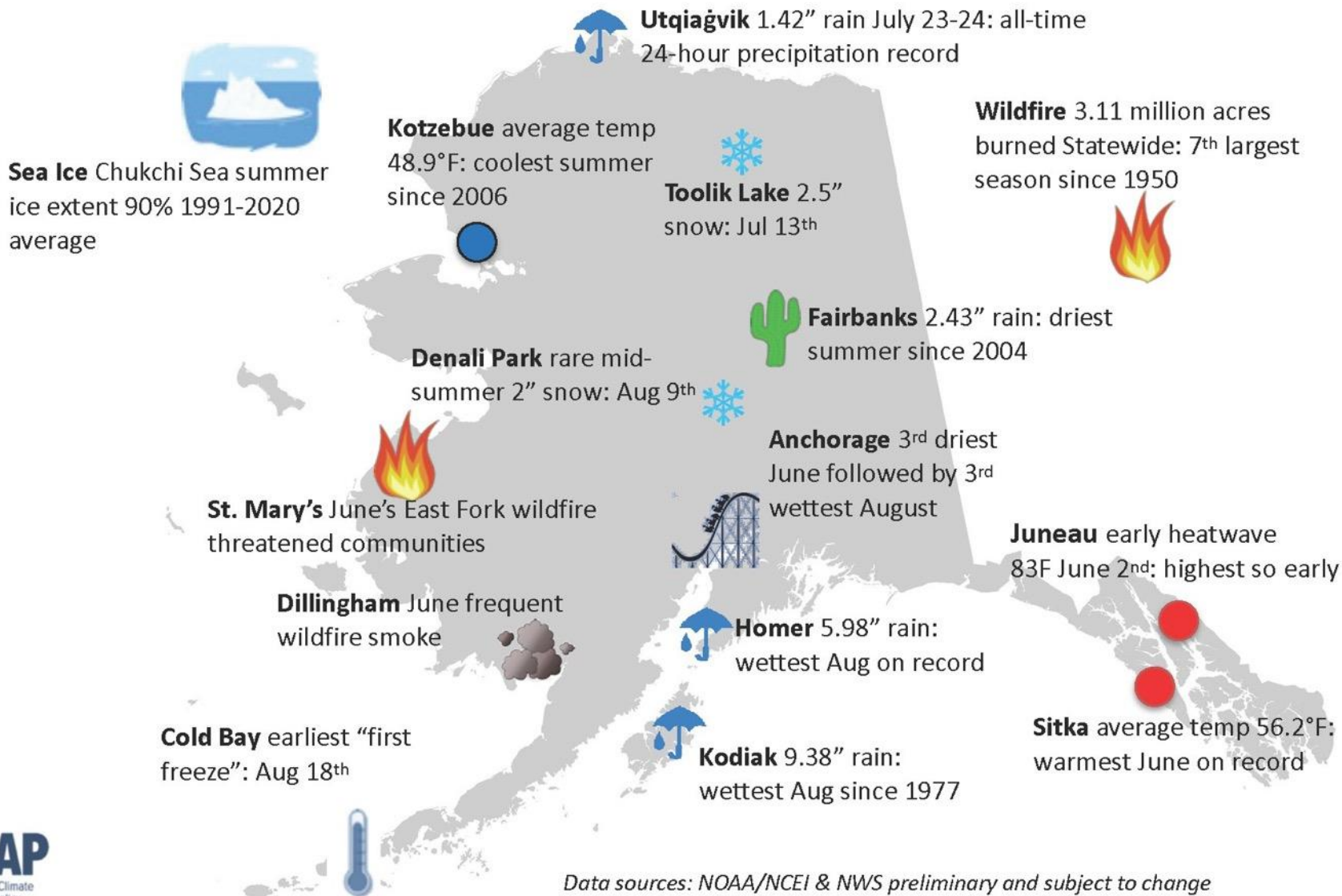
Alaska Center for Climate Assessment and Policy
University of Alaska Fairbanks



September 20, 2022

Summer 2022

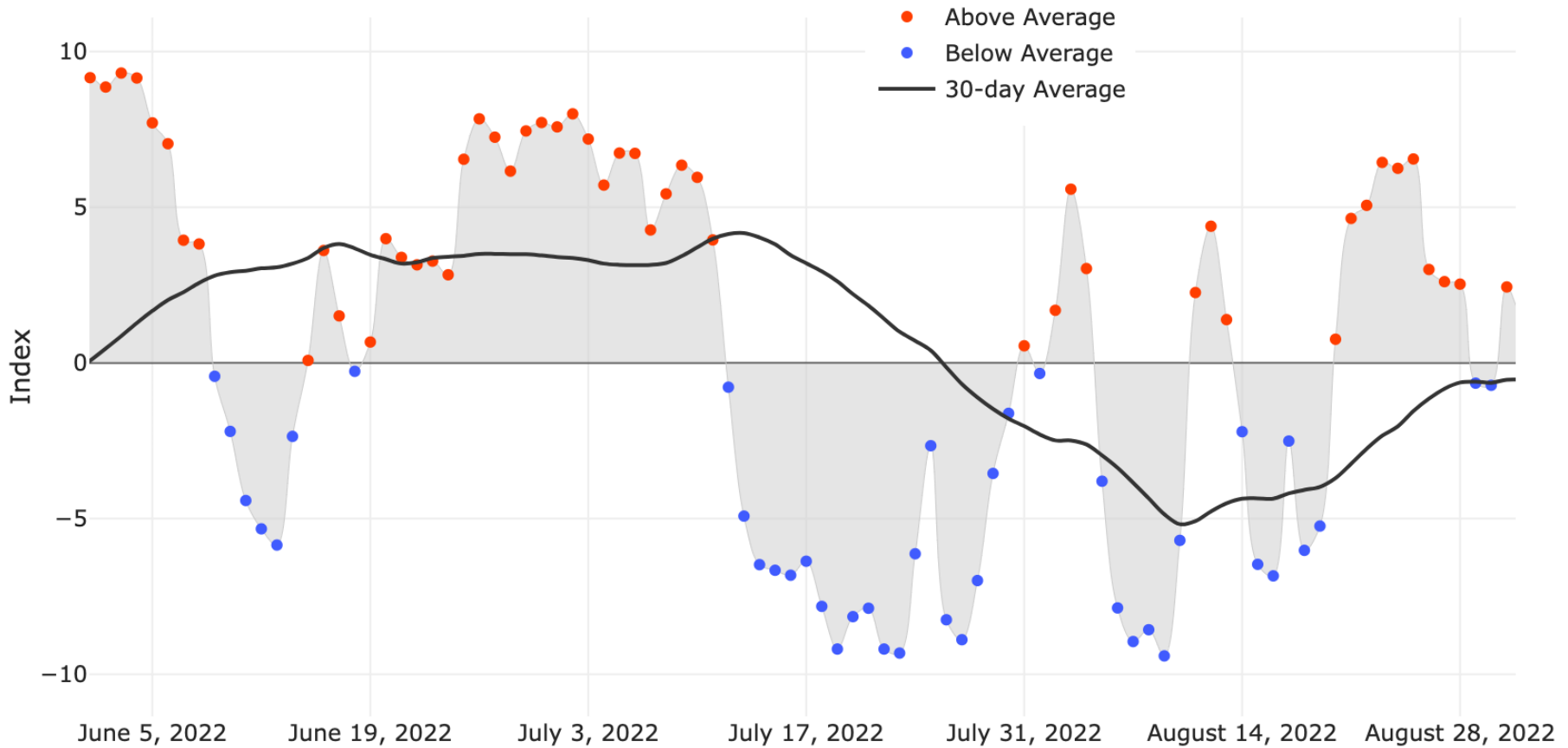
Alaska Weather & Climate Highlights



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

Alaska Daily Temperature Index

Alaska Statewide Temperature Index
June 1 to August 31, 2022



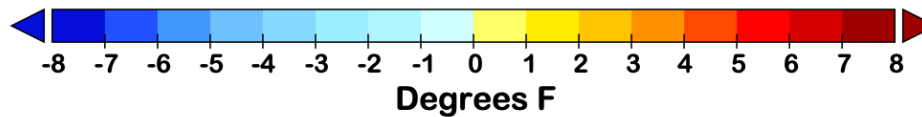
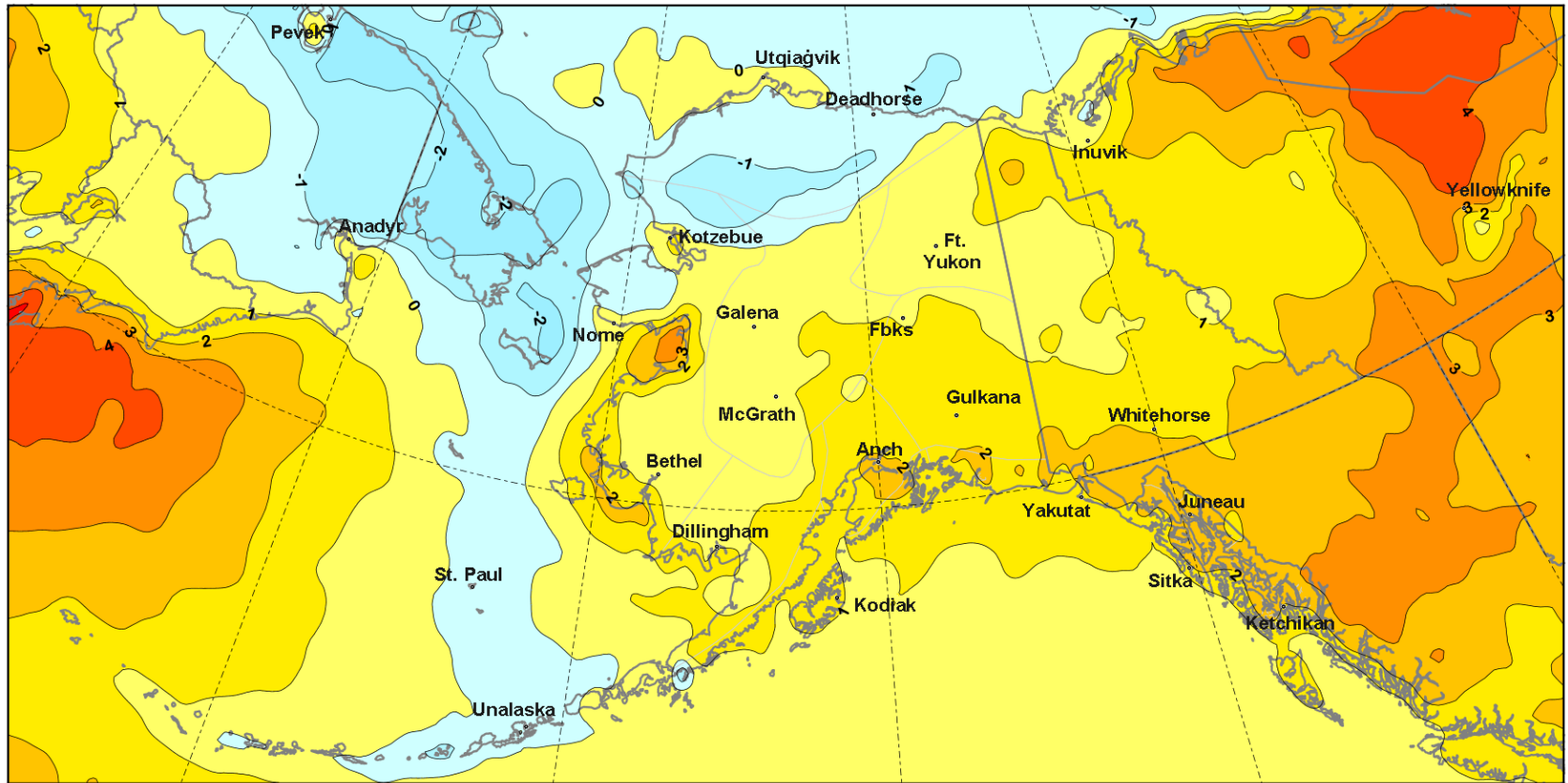
Online: <http://accap.uaf.edu/tools/statewide-temperature-index>



Summer 2022

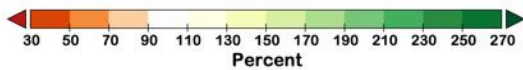
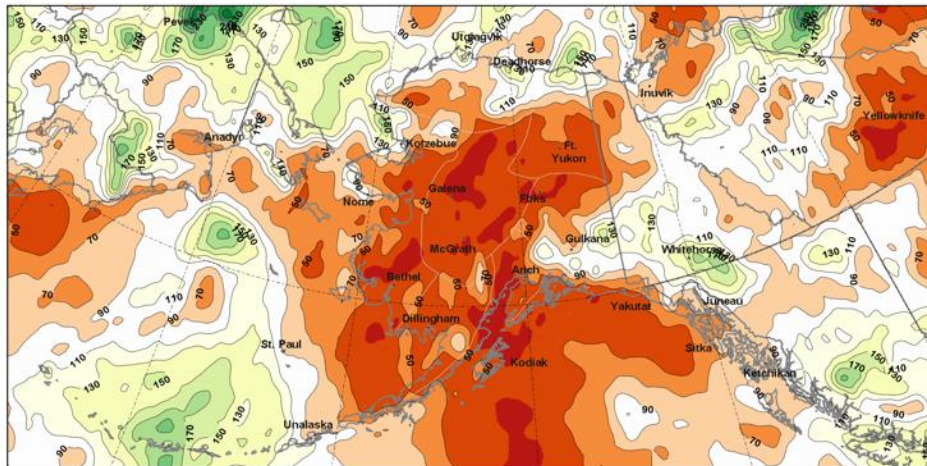
Temperature Difference from Normal

Average Temperature: Departure from Normal
Summer (June through August) 2022



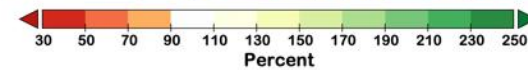
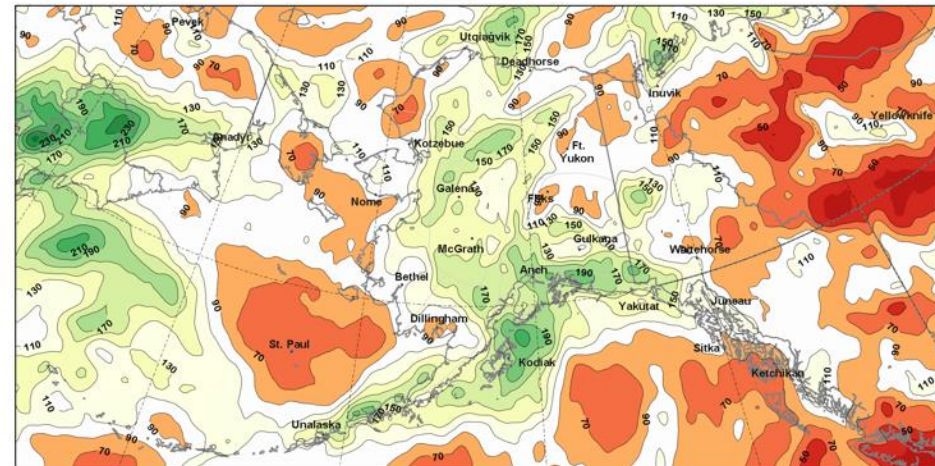
Dramatic Precipitation Differences

Total Precipitation: Percent of Normal
June 2022



1991-2020 Baseline
ERA5 courtesy of ECMWF/Copernicus

Total Precipitation: Percent of Normal
August 2022



1991-2020 Baseline
ERA5 courtesy of ECMWF/Copernicus

June Precipitation Percent of Average

August Precipitation Percent of Average

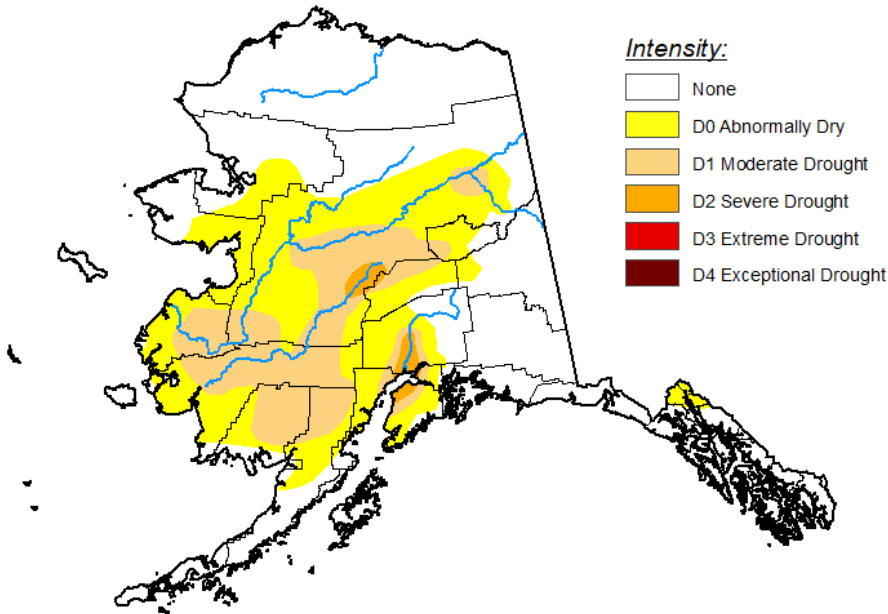
Drought WAS Alaska

U.S. Drought Monitor

July 5, 2022

(Released Thursday, Jul. 7, 2022)

Valid 8 a.m. EDT



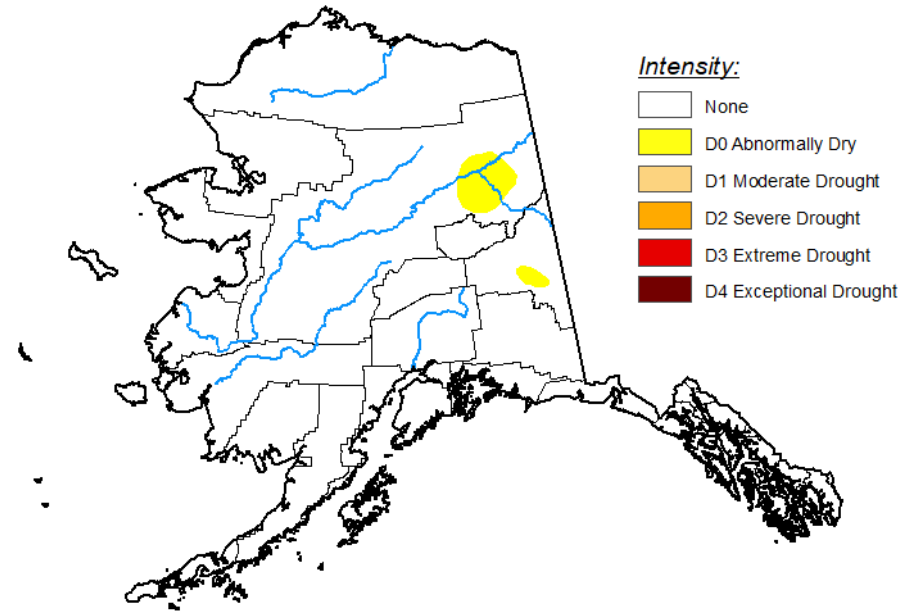
Dry Spring/Early Summer
Up to Severe Drought

U.S. Drought Monitor

August 30, 2022

(Released Thursday, Sep. 1, 2022)

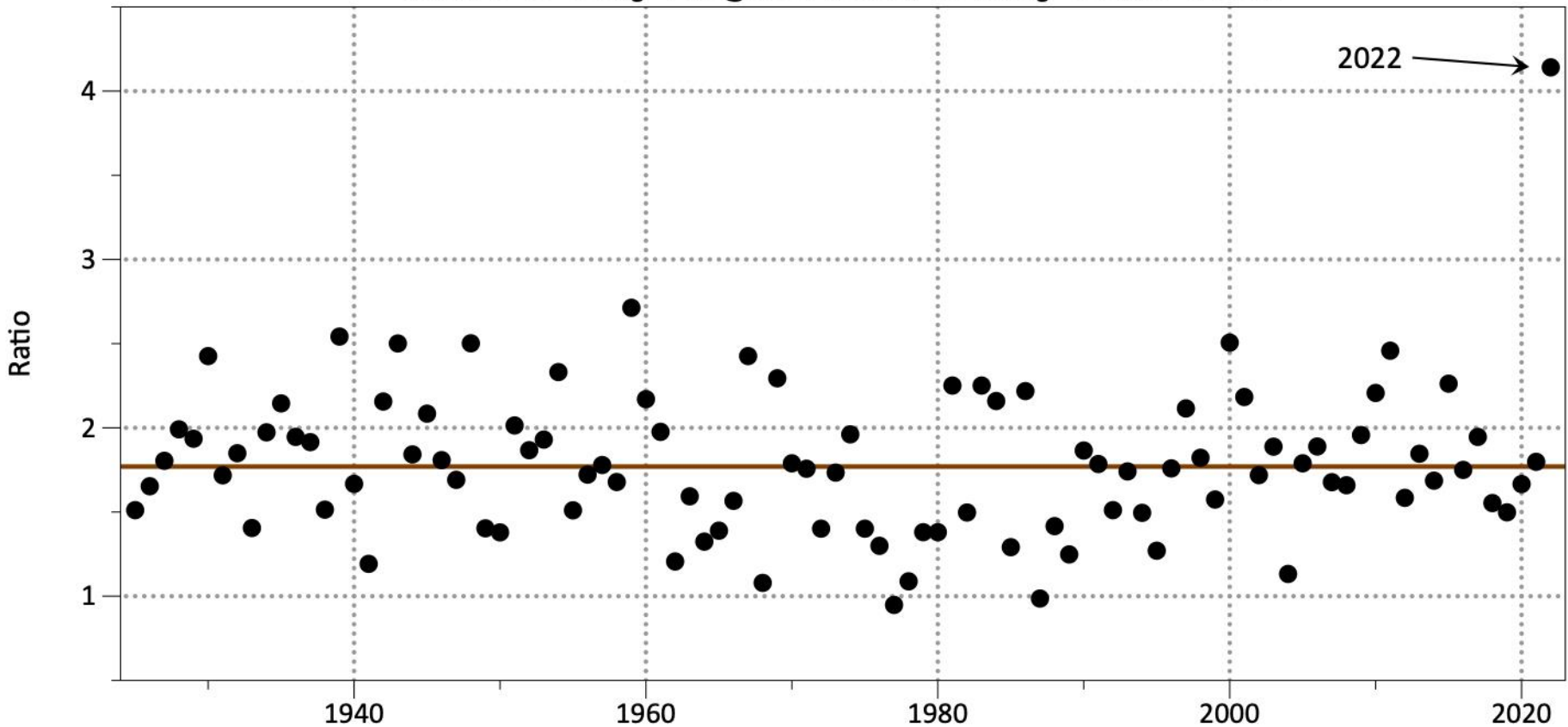
Valid 8 a.m. EDT



Mostly Wet Late Summer
Bye-Bye Drought

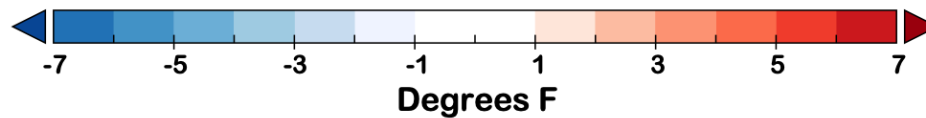
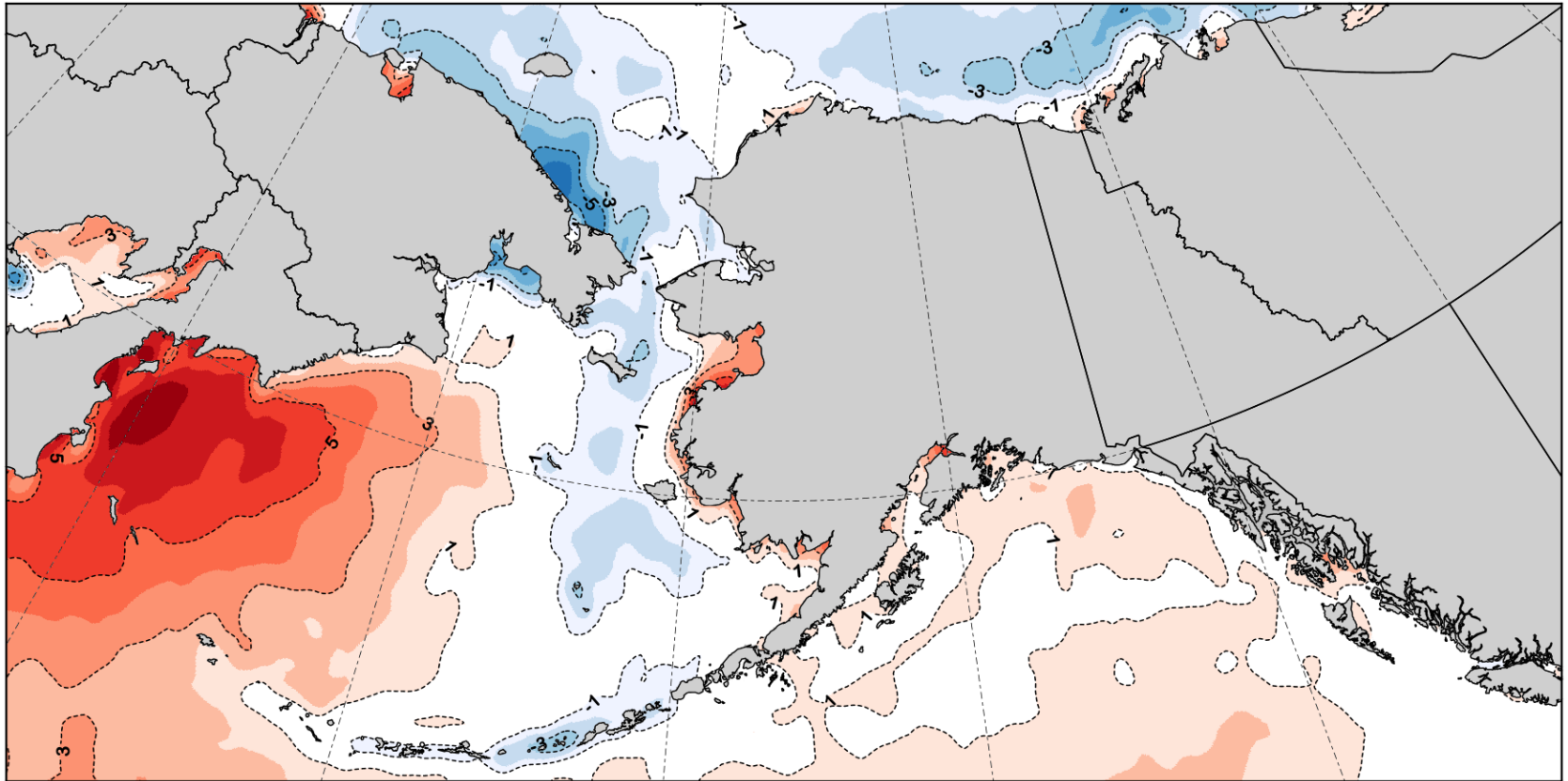
The Great 2022 Precipitation Flip-Flop

Alaska Statewide Precipitation, 1925-2022
Ratio of July-August Total to May-June Total



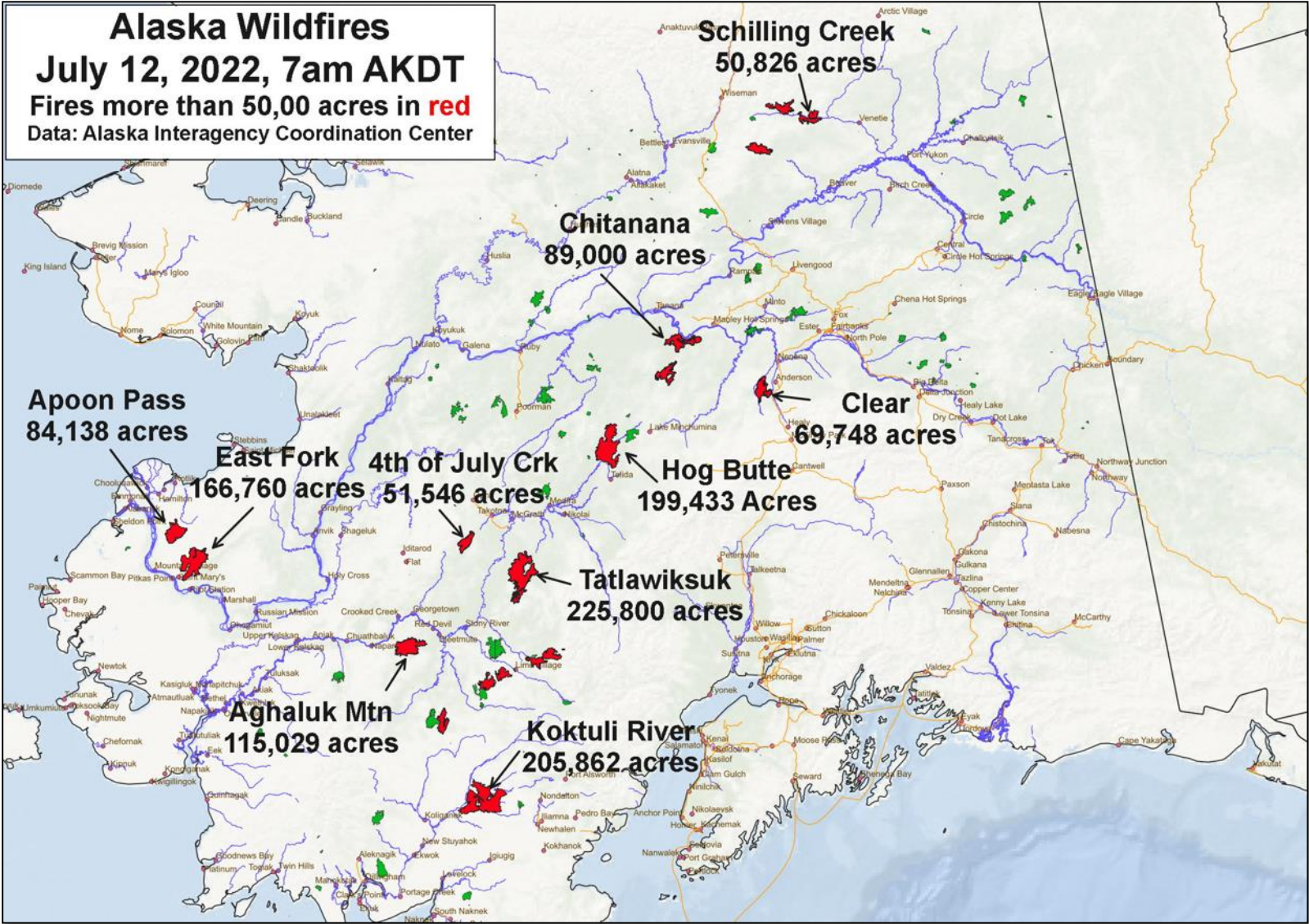
Summer 2022 Ocean Temperatures

Average Sea Surface Temperature Departure from Normal
Summer (June through August) 2022



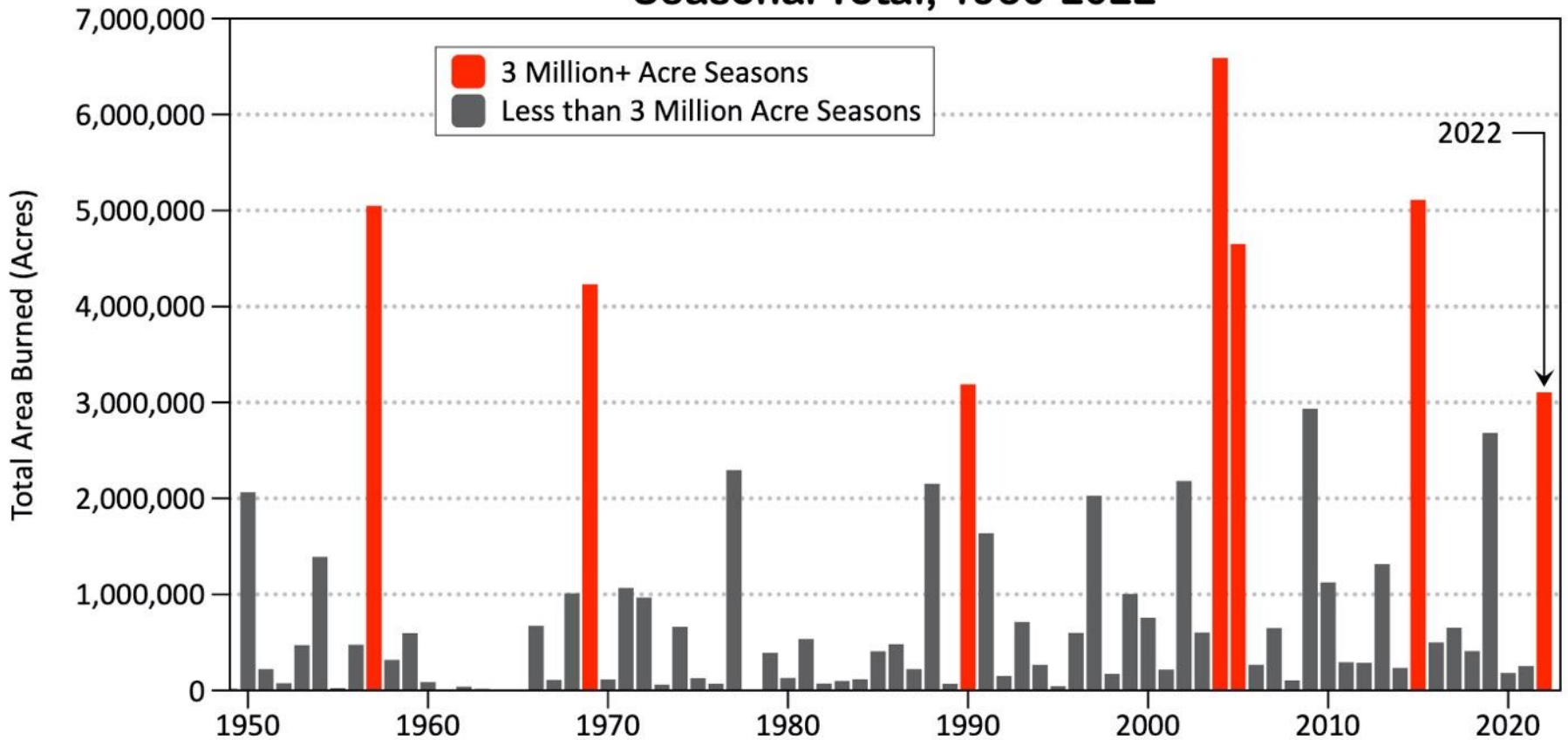
1991-2020 baseline
OISSTv2.1 courtesy of NOAA/PSL/ESRL

Alaska 2022 Wildfire



2022 Alaska Wildfire Wildfire

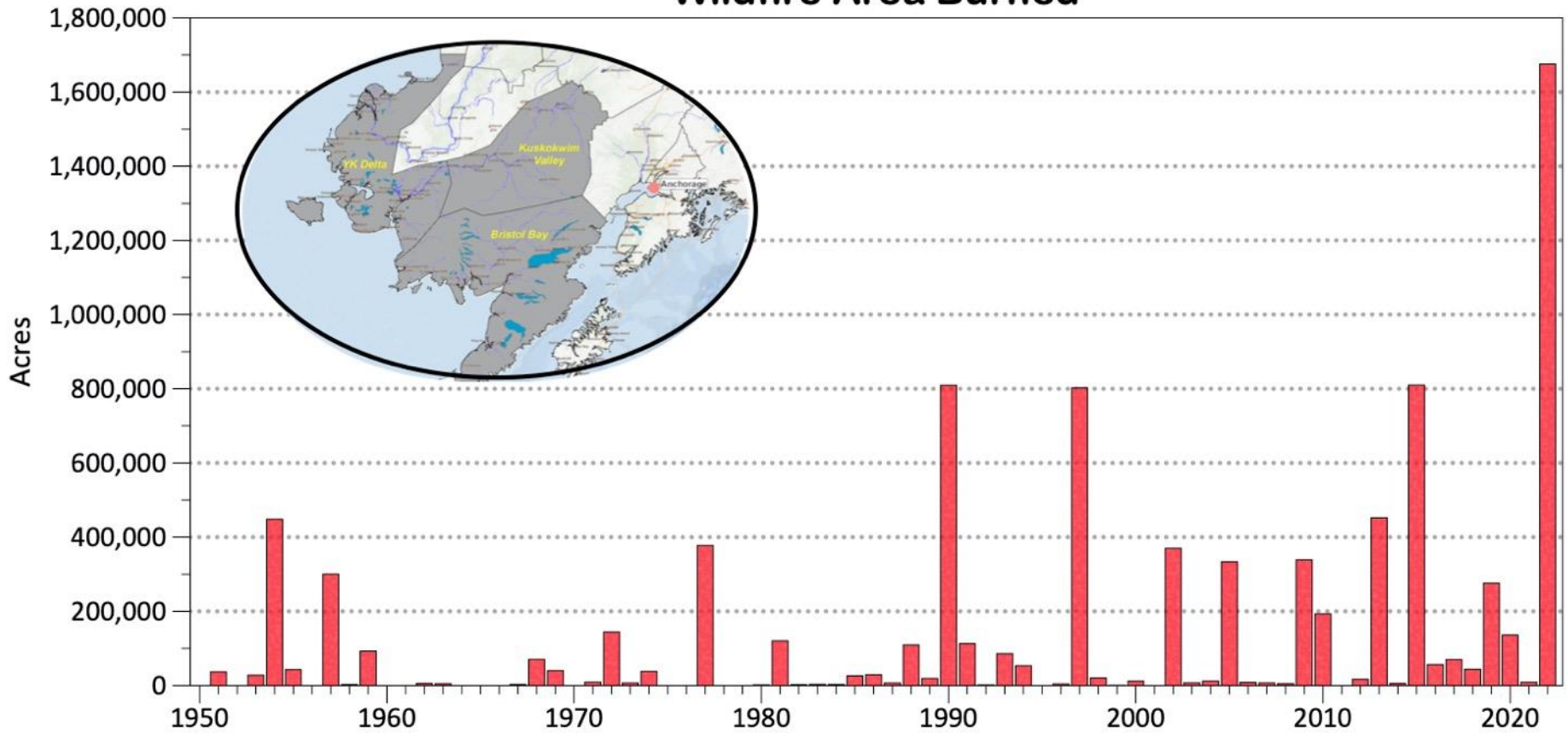
Alaska Wildfire Acreage Seasonal Total, 1950-2022



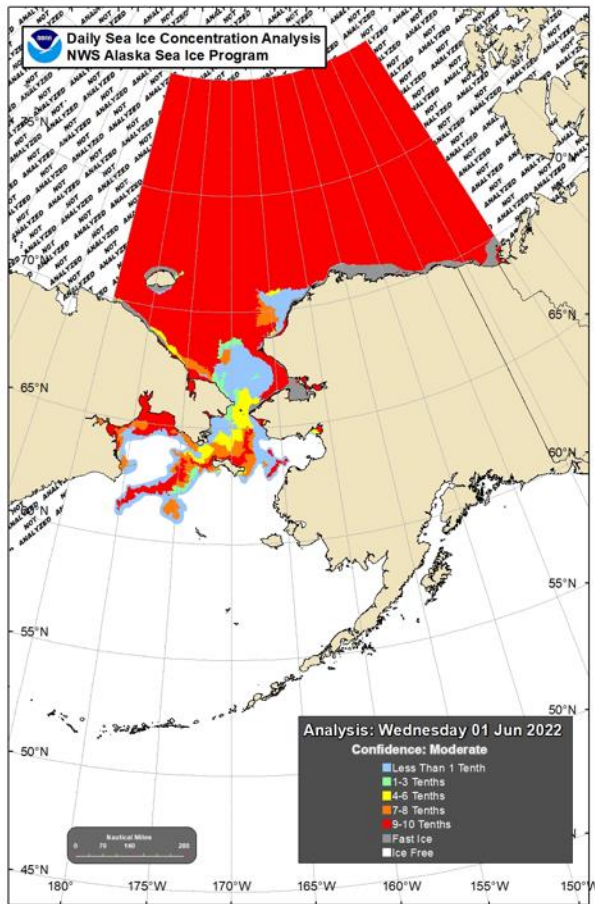
Data Source:
Alaska Interagency Coordination Center
Updated September 04, 2022

2022 Alaska Wildfire Wildfire

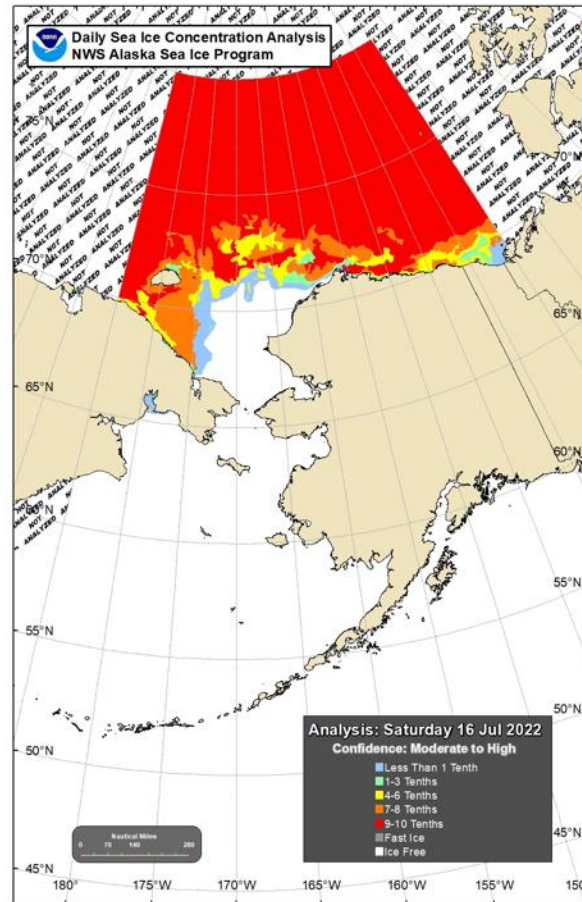
SW Alaska, 1950-2022 Wildfire Area Burned



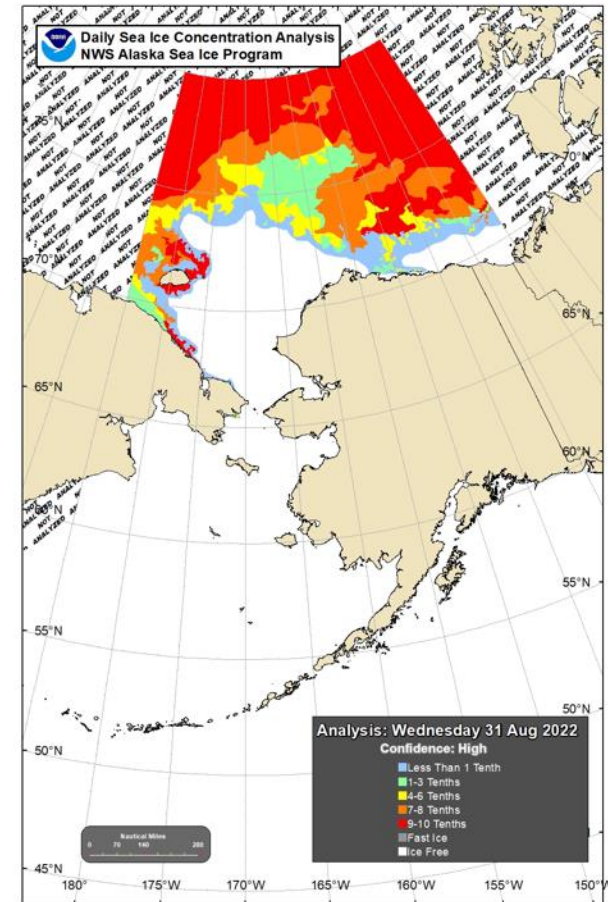
Alaska Sea Ice Extent: Summer 2022



June 01st



July 15th

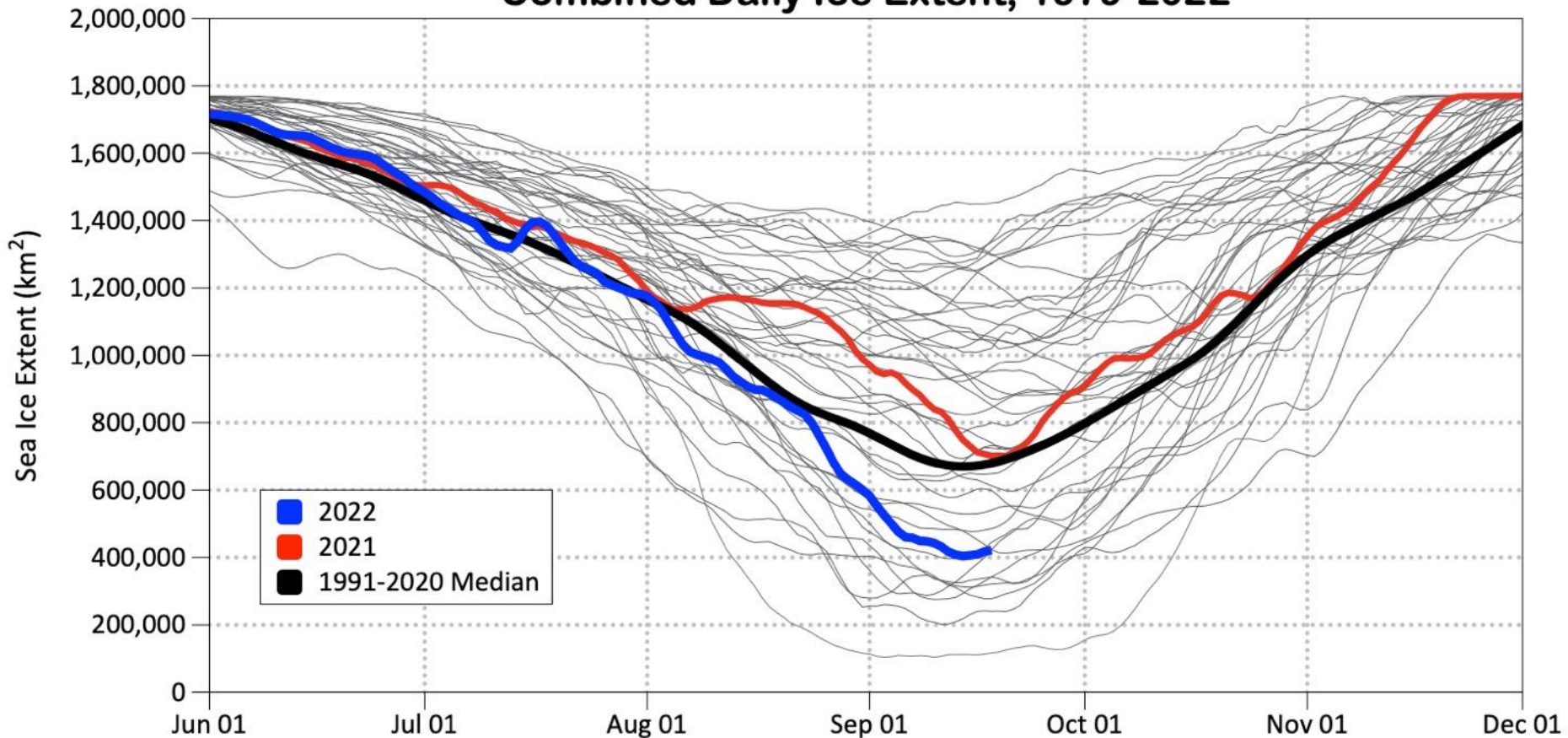


August 31st

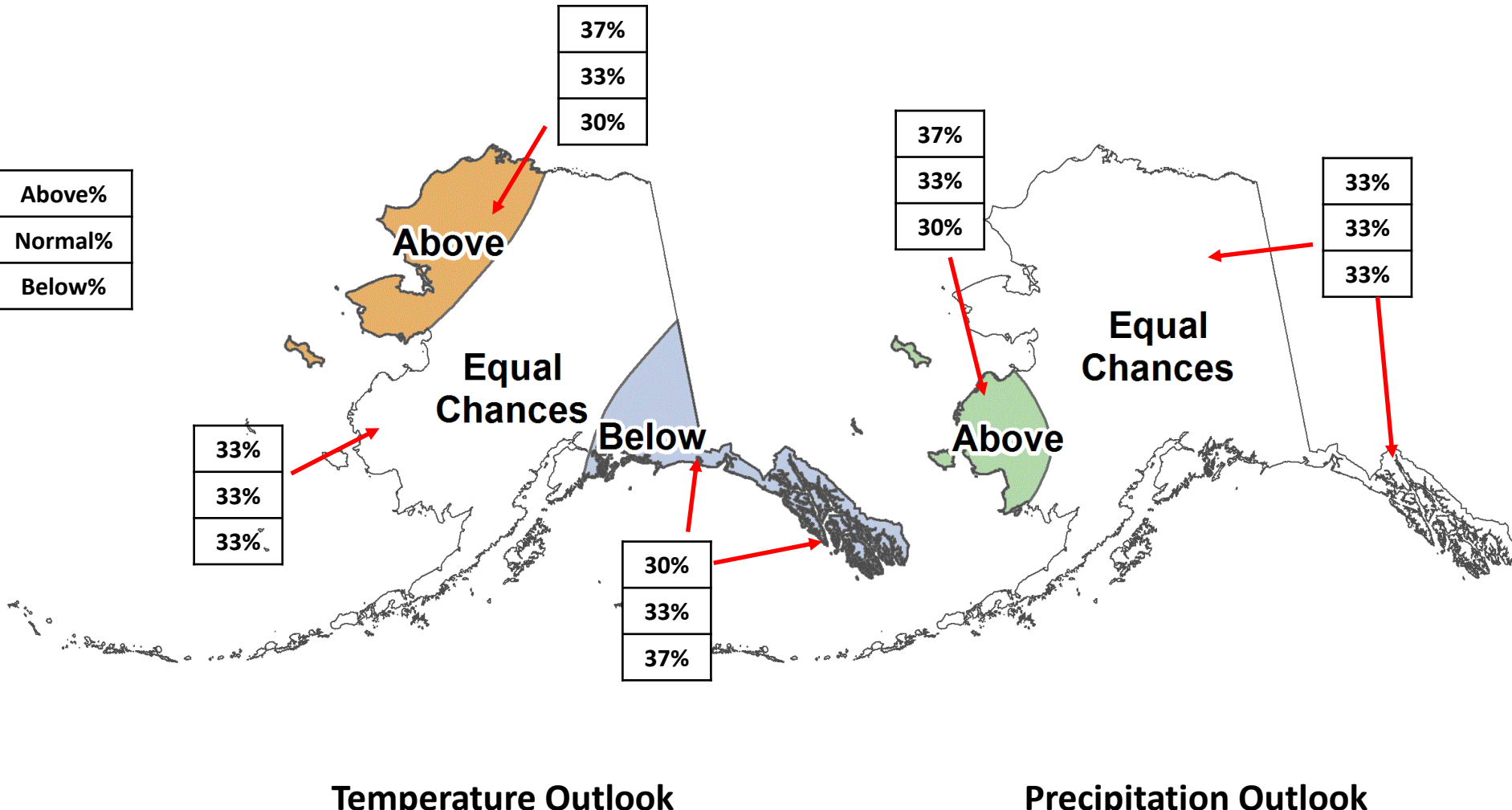


Summer Sea Ice Around Alaska

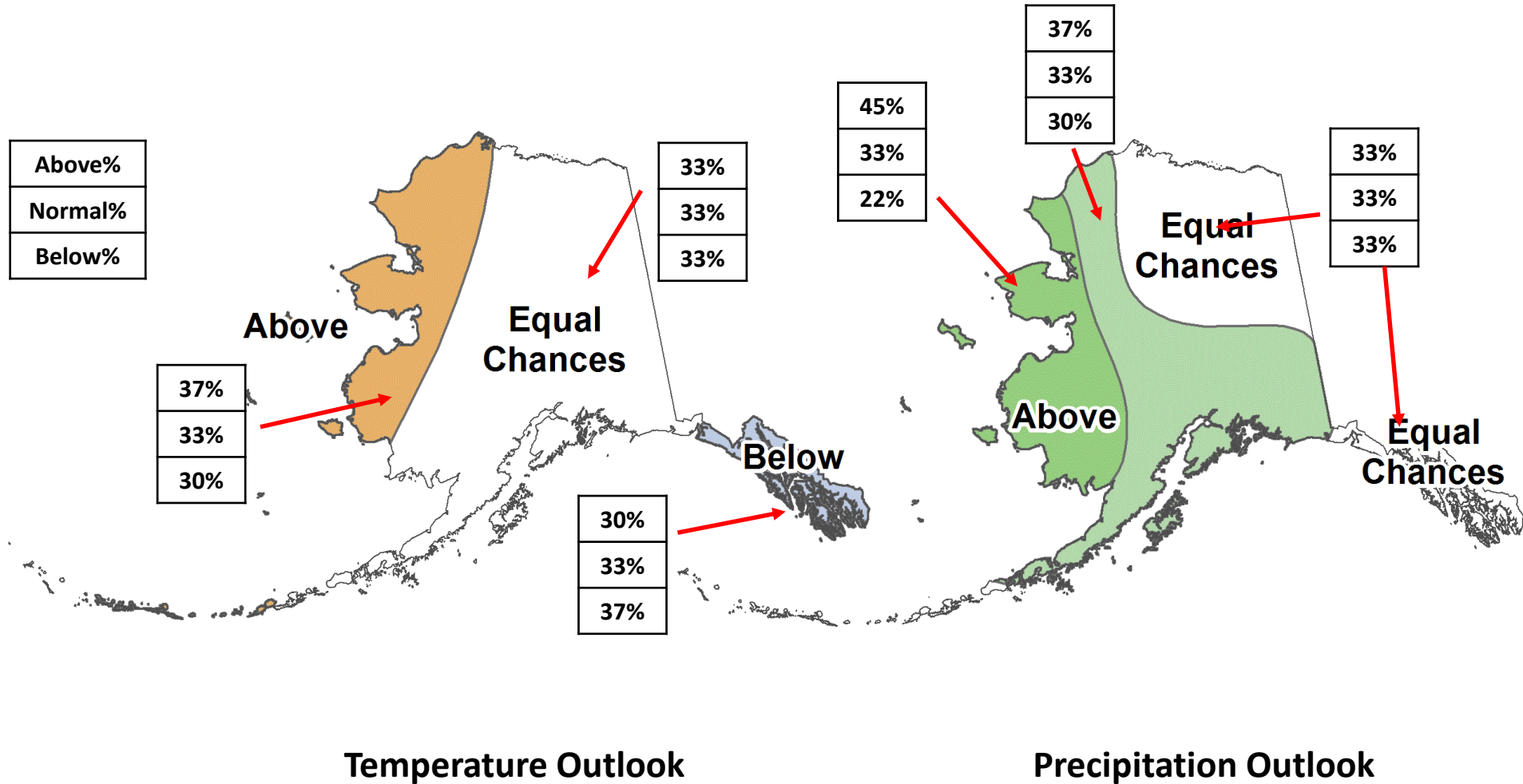
Chukchi & Beaufort Seas Combined Daily Ice Extent, 1979-2022



CPC October-December 2022 Outlook

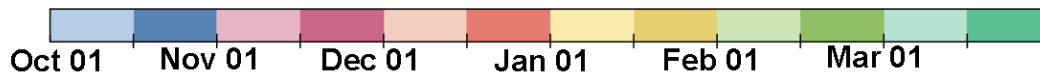
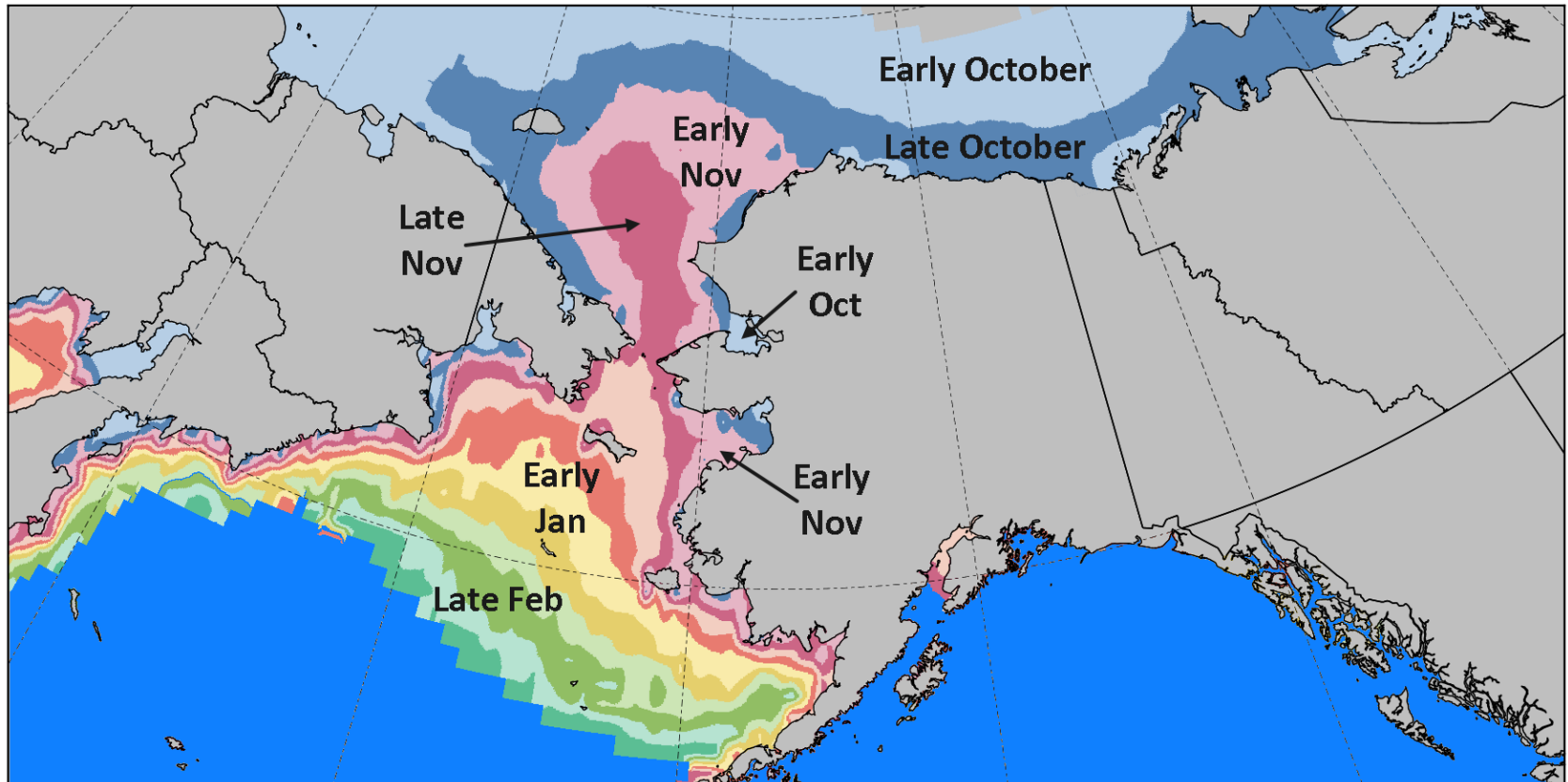


CPC December-February 2022-23 Outlook



Autumn 2022 Sea Ice Outlook

Autumn Freeze-up: First Date Sea Ice Concentration ≥ 15 Percent
2022-23



Outlook made in late August
Data: NOAA/GPC Exp. Sea Ice Outlook

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

Thanks very much



Clear wildfire, July 7, 2022

Photo: Brian LeRoy

