



LEO Alaska Webinar

Summer 2023 Climate Review and Autumn 2023 Outlook

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Summer 2023 Alaska Weather & Climate Highlights

Utqiagvik average temperature 43.2F, warmest summer on record



Beaufort Sea August average sea ice extent 4th lowest on record



Statewide 19,000 lightning strikes July 24-25th, highest 1-day total since July 2019

West Coast/Interior rare low elevation summer snow June 1-2

Nome 53 days with rain, 3rd highest past 80 summers



Fairbanks average temperature 62.9F, 3rd warmest summer on record

Statewide wildfire burned less than half average, 298,000 acres.



Gulkana driest summer since 2004: only 43% normal rainfall



Anchorage 48 days with rain, 2nd highest summer total



Juneau August 6th severe Mendenhall River flooding from glacier lake outburst

Homer wettest summer: rainfall 233 percent of normal

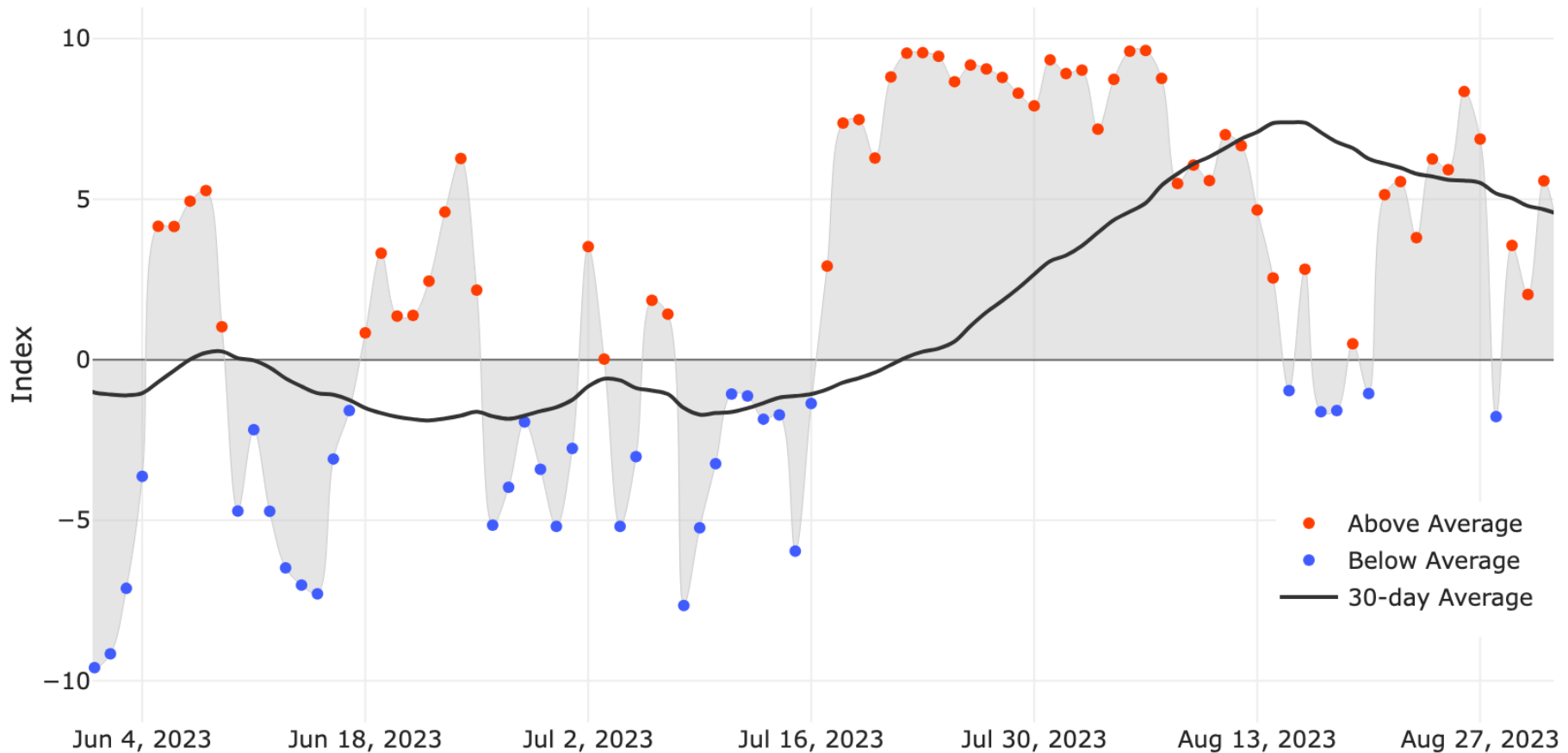
King Salmon 2nd wettest summer: 141 percent of normal



Sitka average temperature 58.0F, 3rd warmest summer on record

Alaska Daily Temperature Index

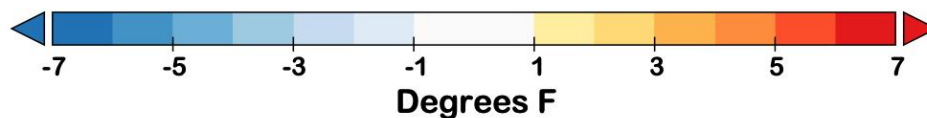
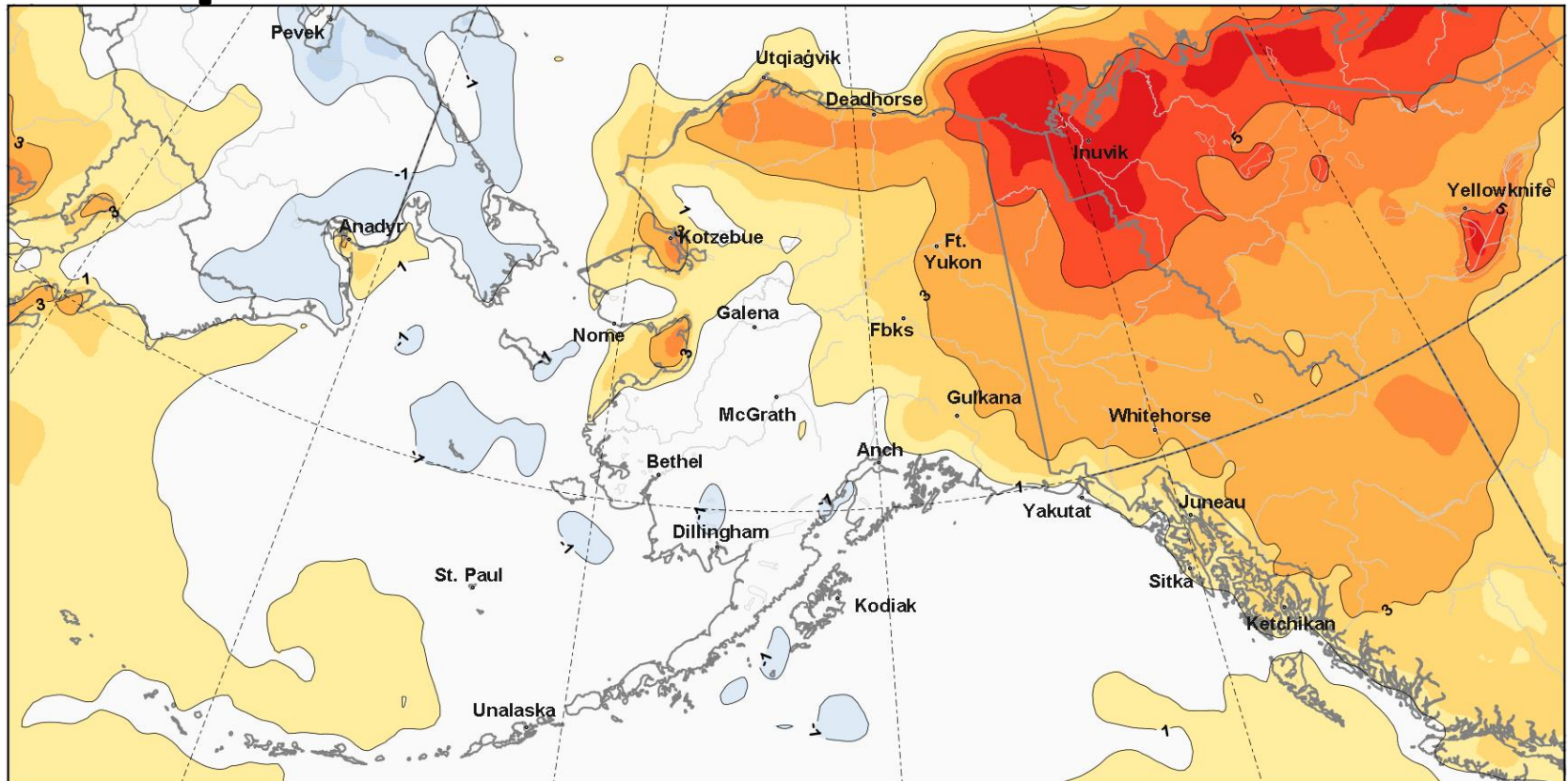
Alaska Statewide Temperature Index
June 1 to August 31, 2023



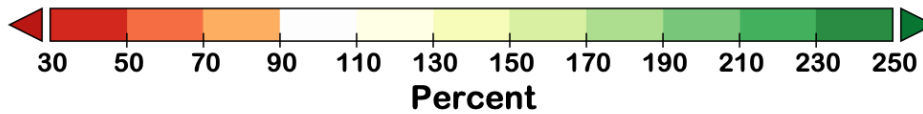
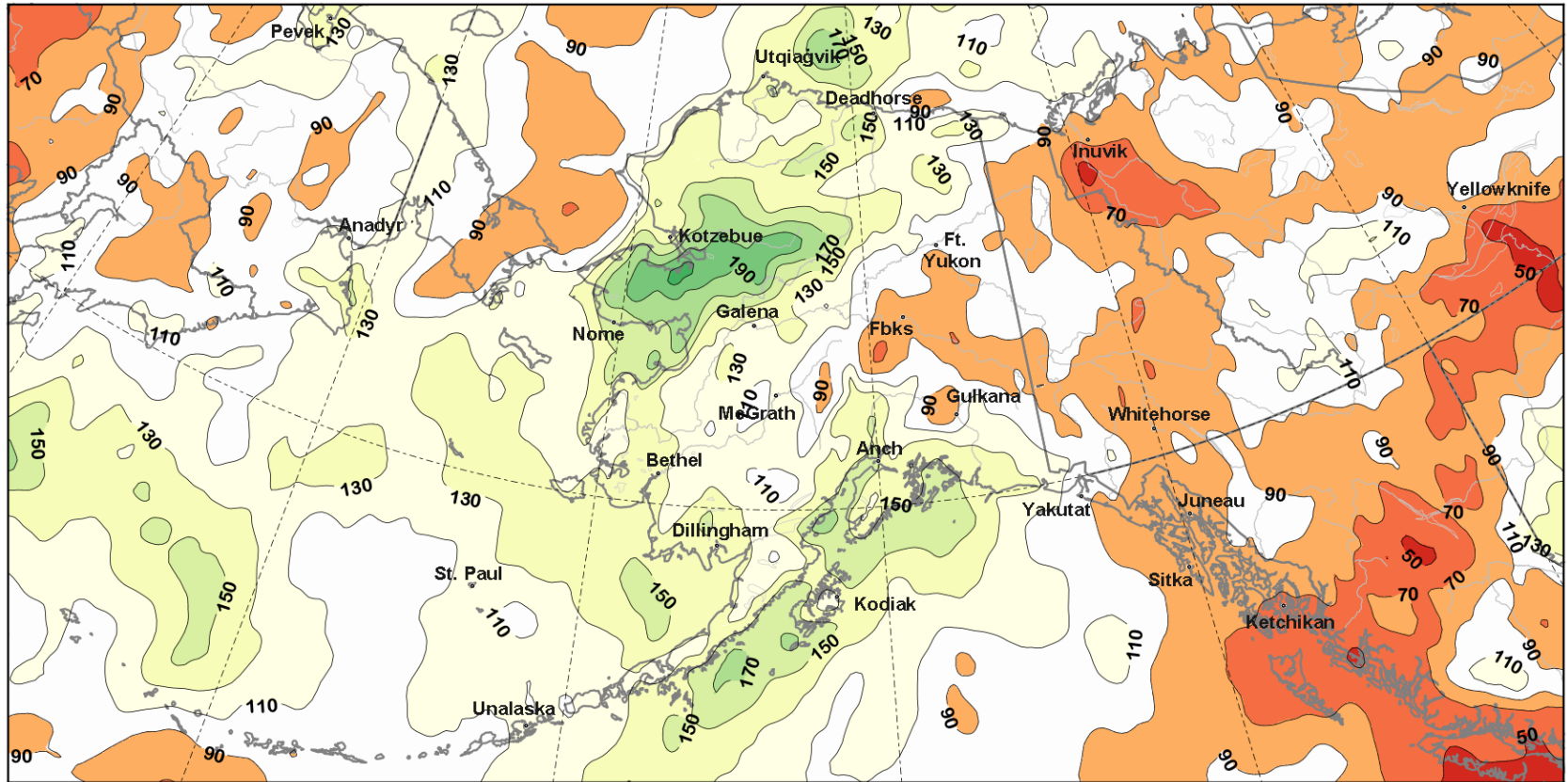
Online: <http://accap.uaf.edu/tools/statewide-temperature-index>



Summer 2023 Temperature Difference from Normal

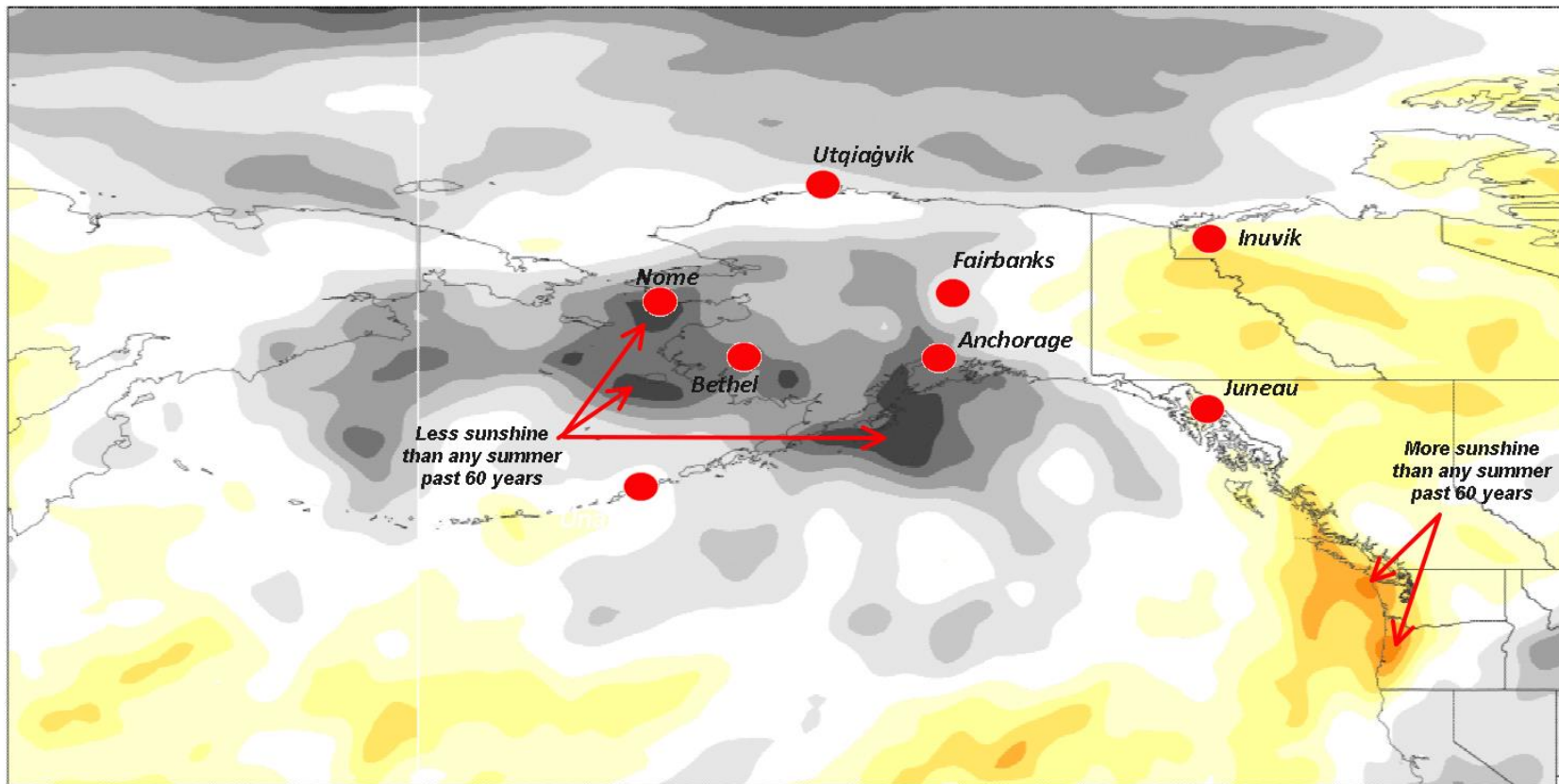


Summer 2023 Precipitation Difference from Normal



How Gray was It?

June 2023 - August 2023
ERA5 Reanalysis



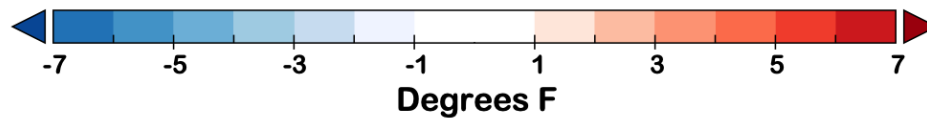
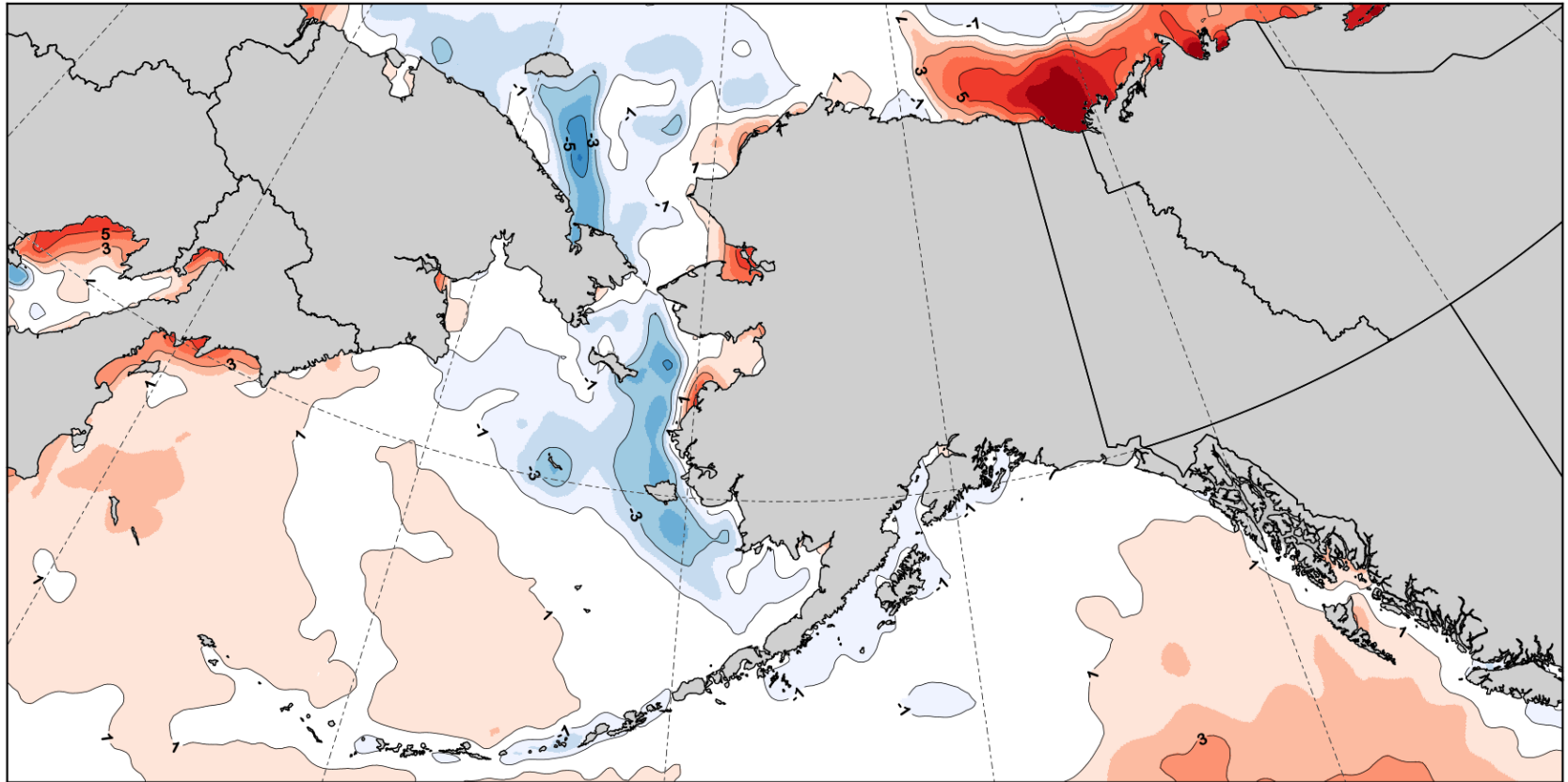
Less Sunshine

More Sunshine

1 2 5 10 20 42 52 57 60 61

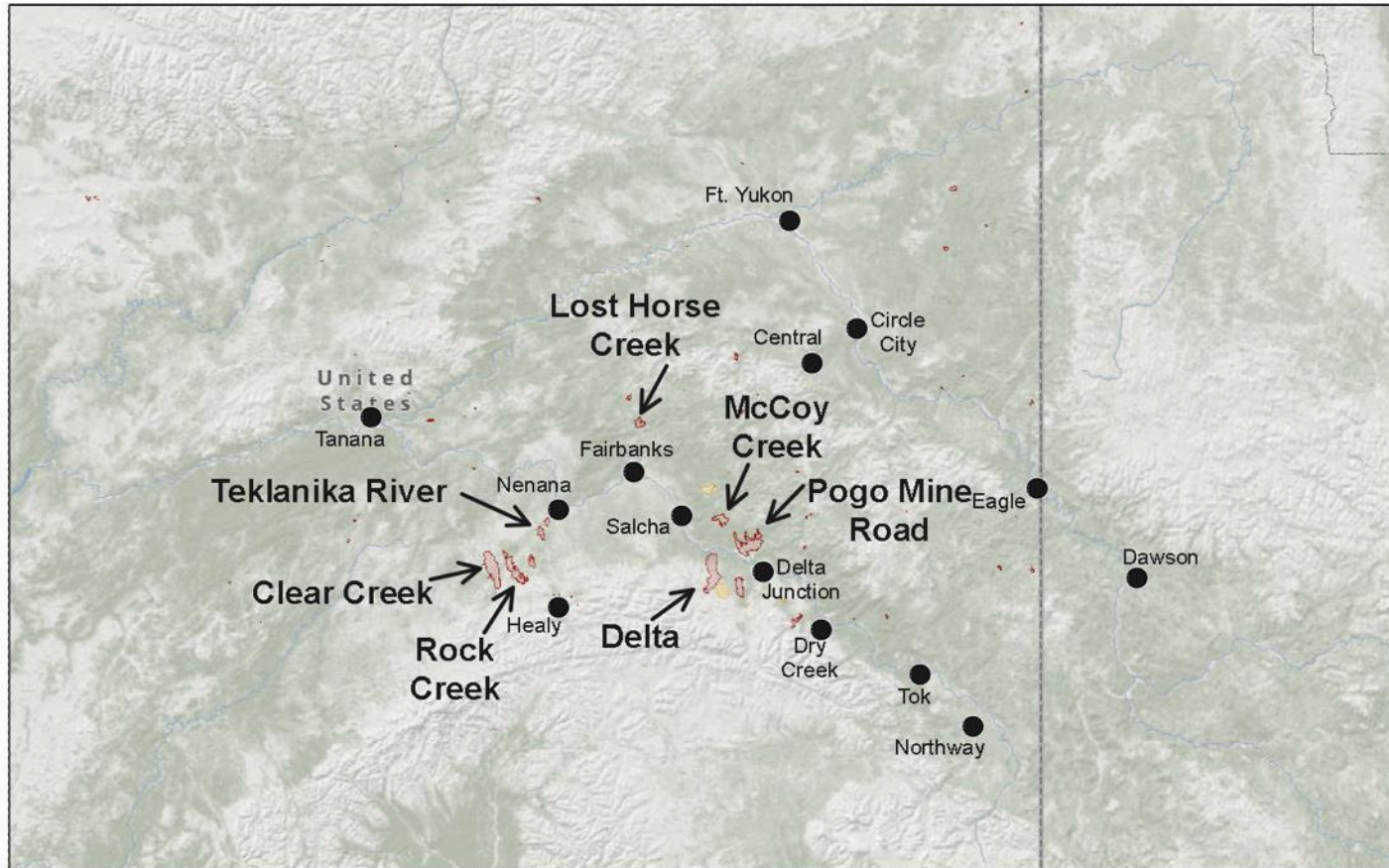
Summer 2023 Ocean Temperatures

Average Sea Surface Temperature Departure from Normal
Summer (June through August) 2023



Alaska 2023 Wildfire

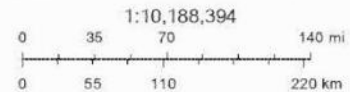
Alaska 2023 Wildfire Perimeters



9/15/2023

Fire Perimeters (NIFC) Prescribed Fire

Wildfire



Esri, GEBCO, Garmin, NaturalVue, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA

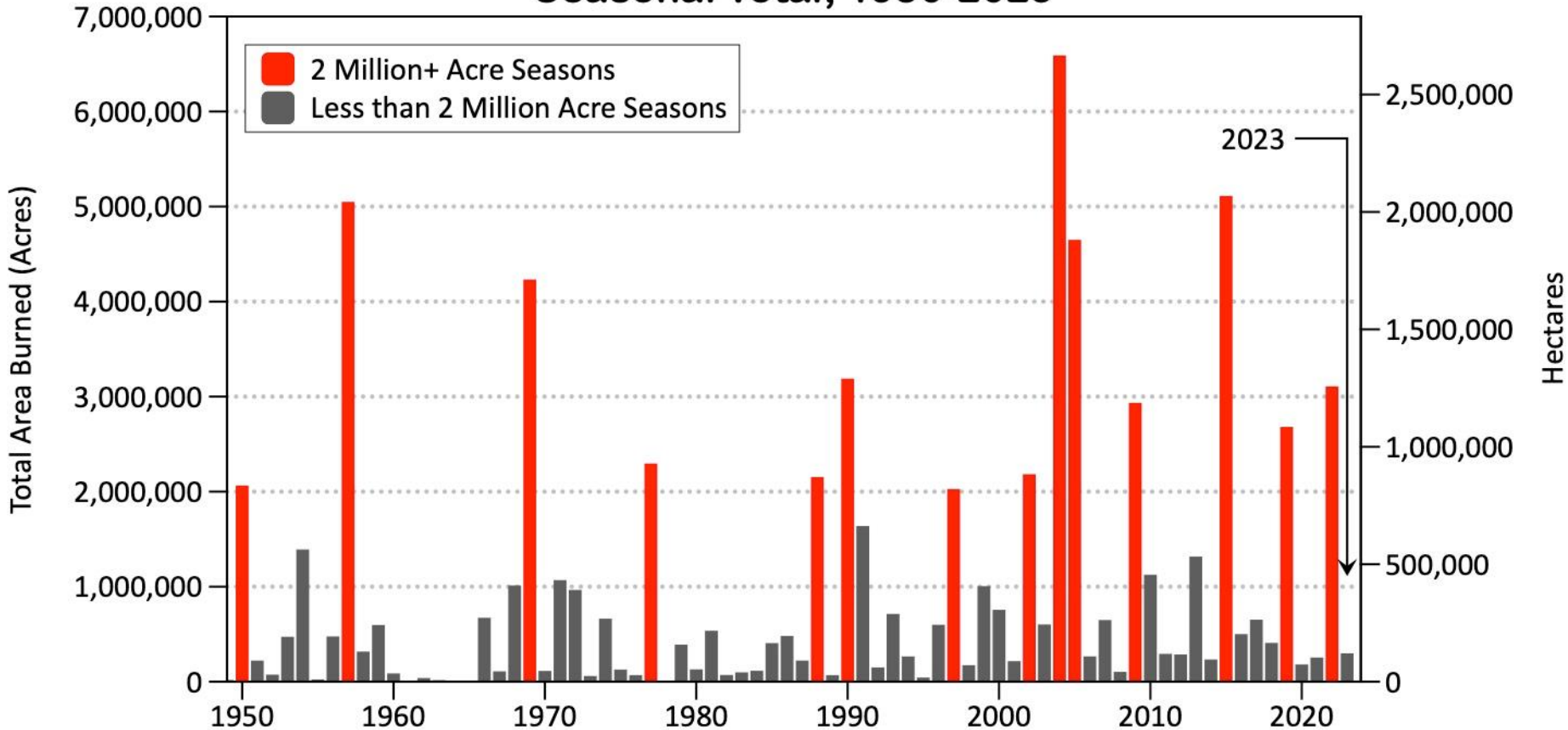
AK Wildland Fire Information Series

Alaska Wildland Fire Coordinating Group (AWFCG), State of Alaska Department of Natural Resources, Division of Forestry and Fire Protection (DOFFP), US Department of Agriculture, Forest Service (USFS), U.S. Department of the Interior, Bureau of Land



2023 Alaska Wildfire In Content

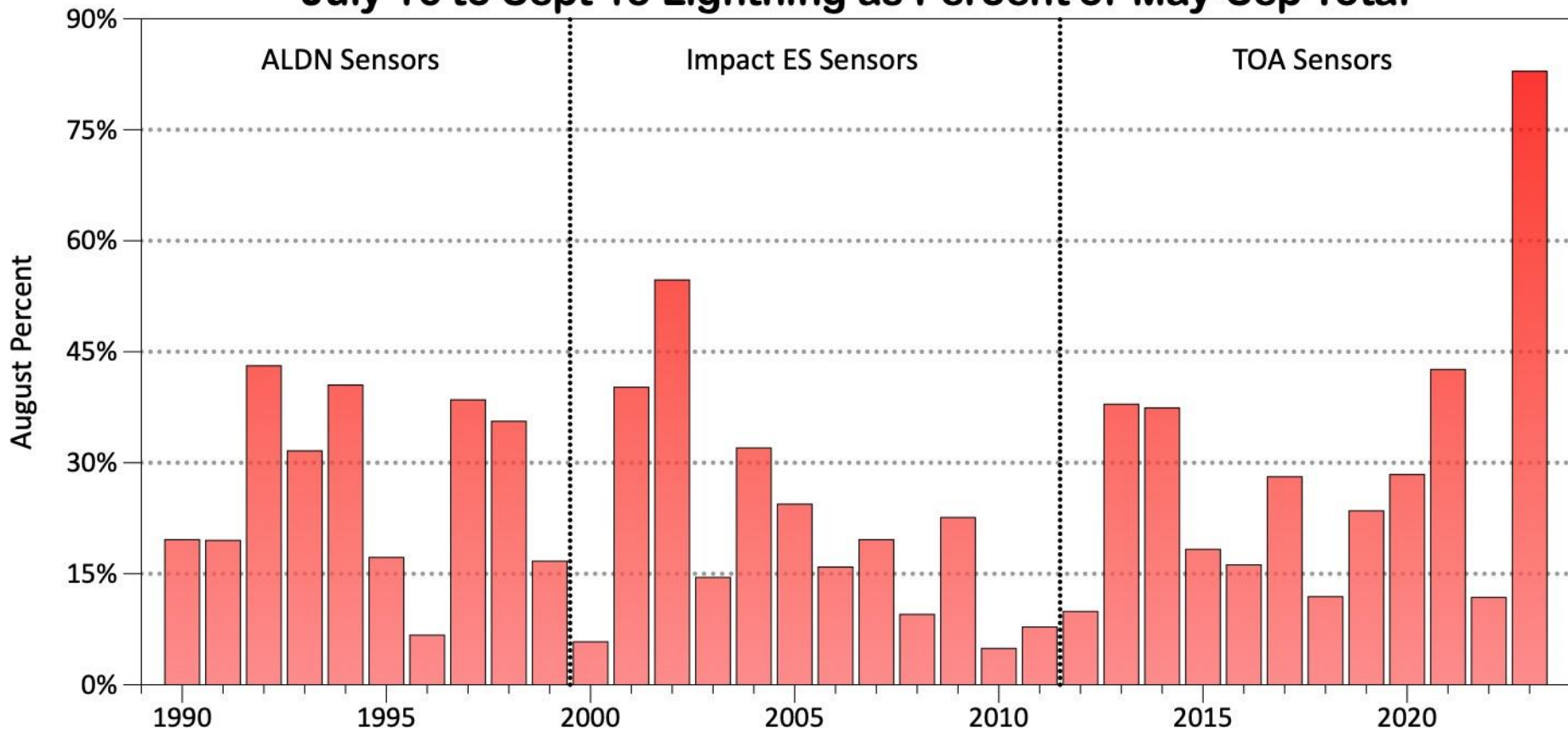
Alaska Wildfire Acreage Seasonal Total, 1950-2023



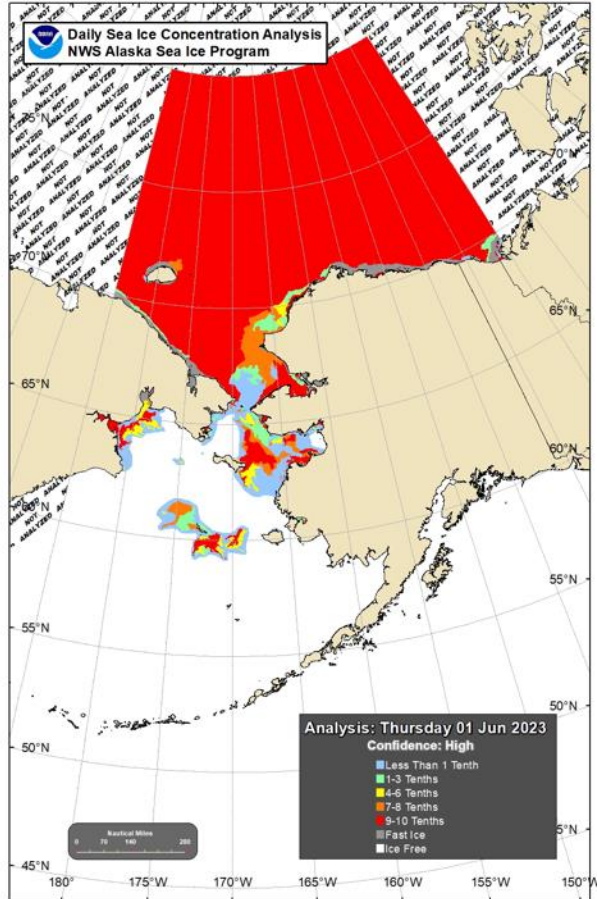
Data Source:
Alaska Interagency Coordination Center

Late Season Lightning

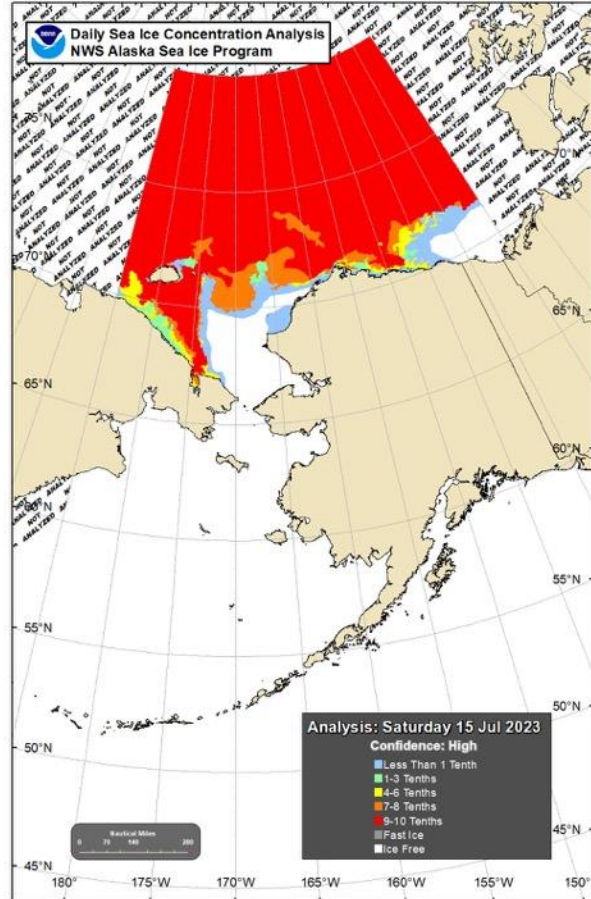
Alaska and Vicinity, 1990-2023
July 16 to Sept 15 Lightning as Percent of May-Sep Total



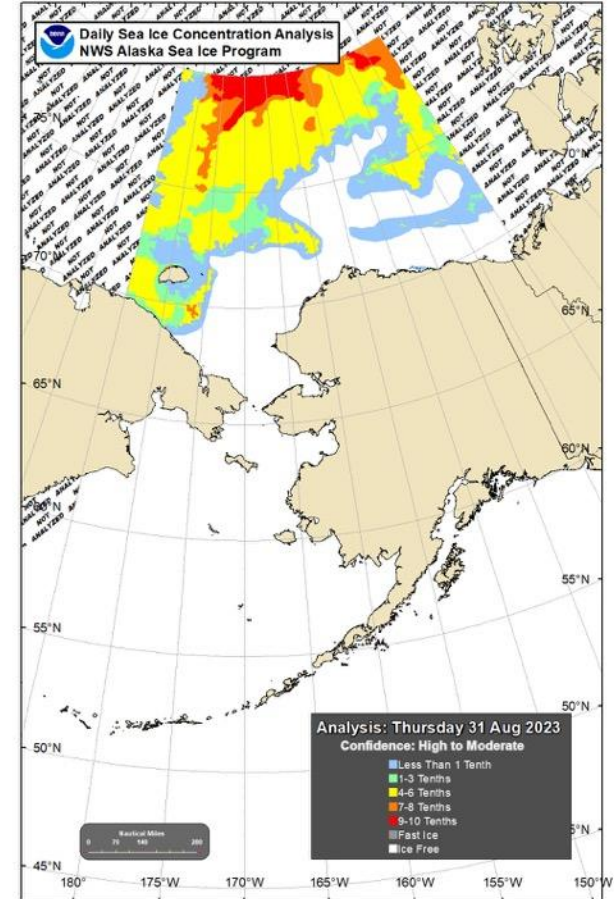
Alaska Sea Ice Extent: Summer 2023



June 01st



July 15th

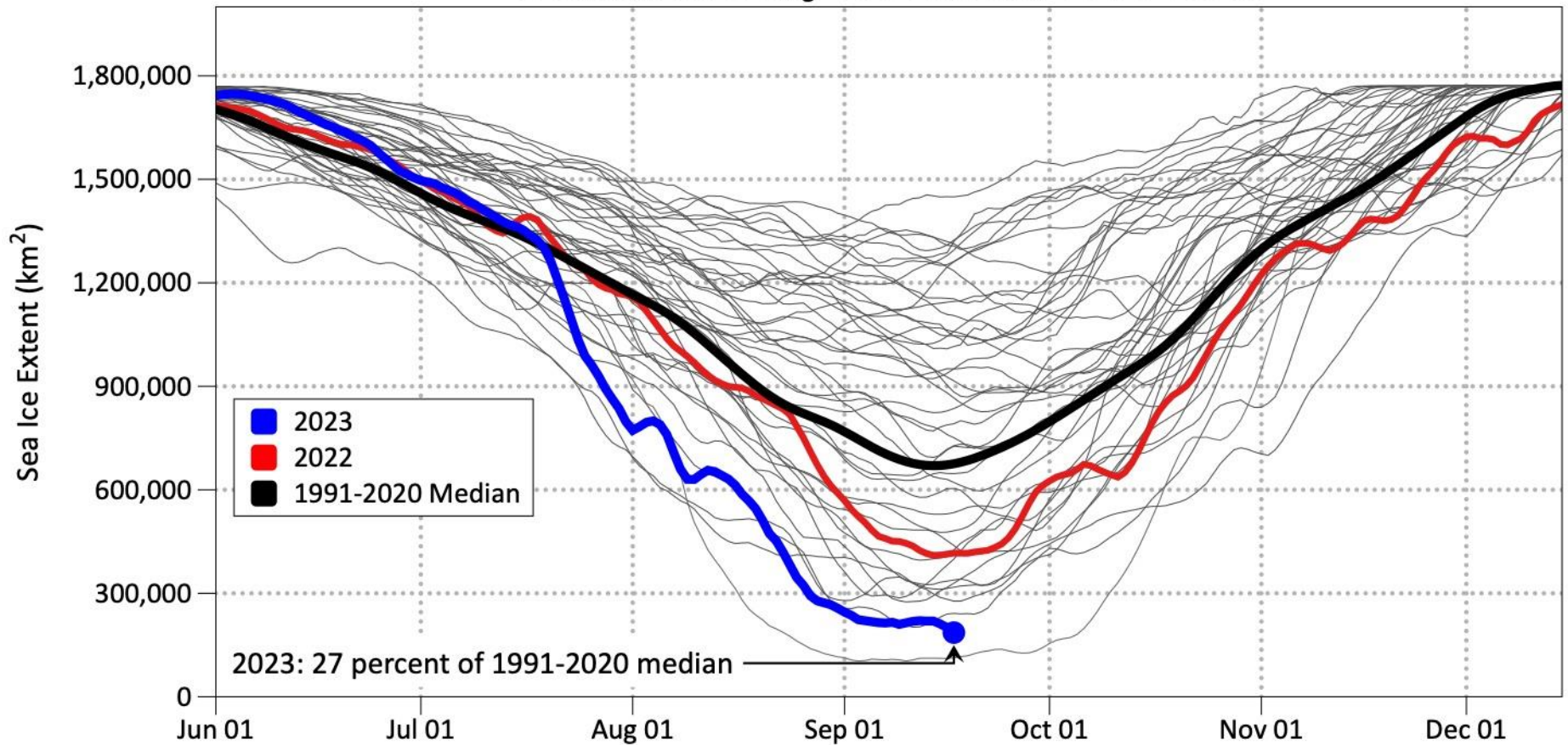


August 31st



Summer Sea Ice Around Alaska

Chukchi & Beaufort Seas Combined Daily Ice Extent, 1979-2023

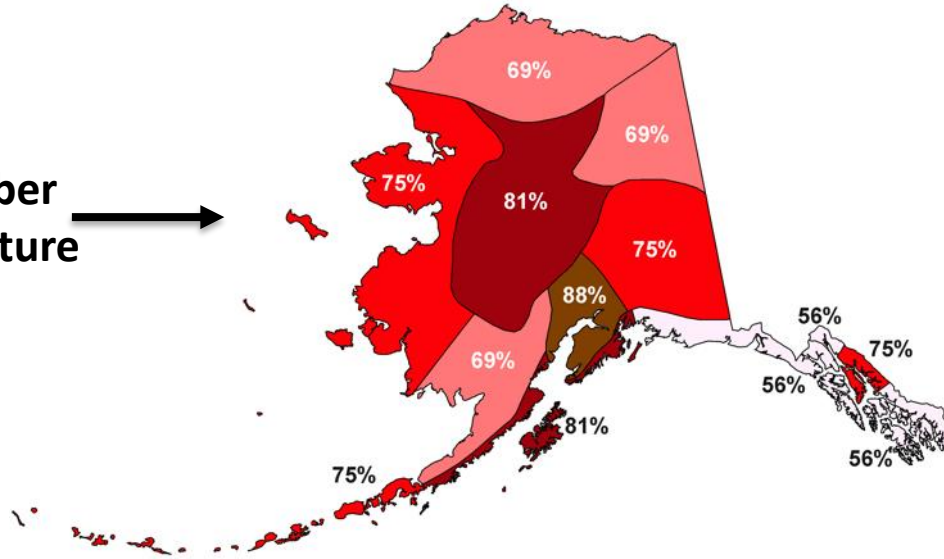


Data source: NSIDC Sea Ice Index, Version 3
Updated through September 17, 2023

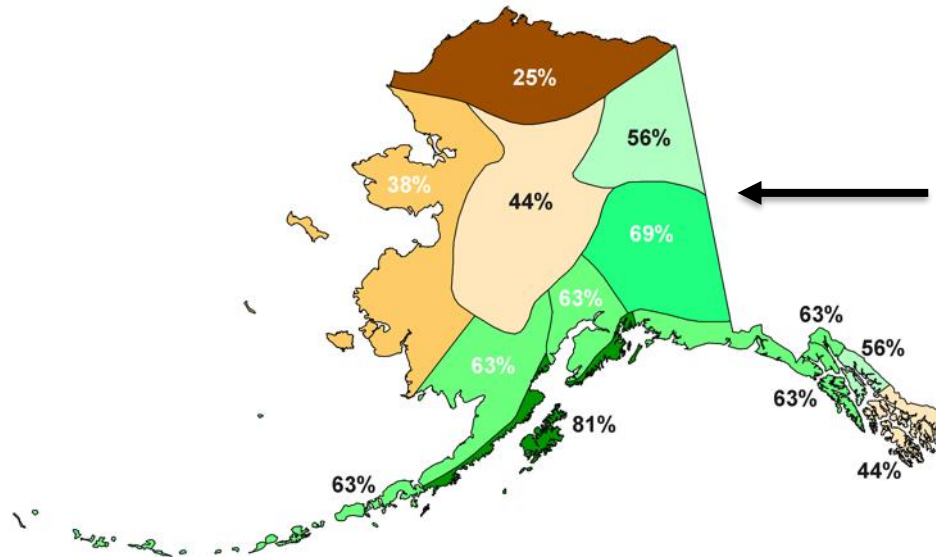
16 Autumn El Niño since 1976

Percent of those years above average

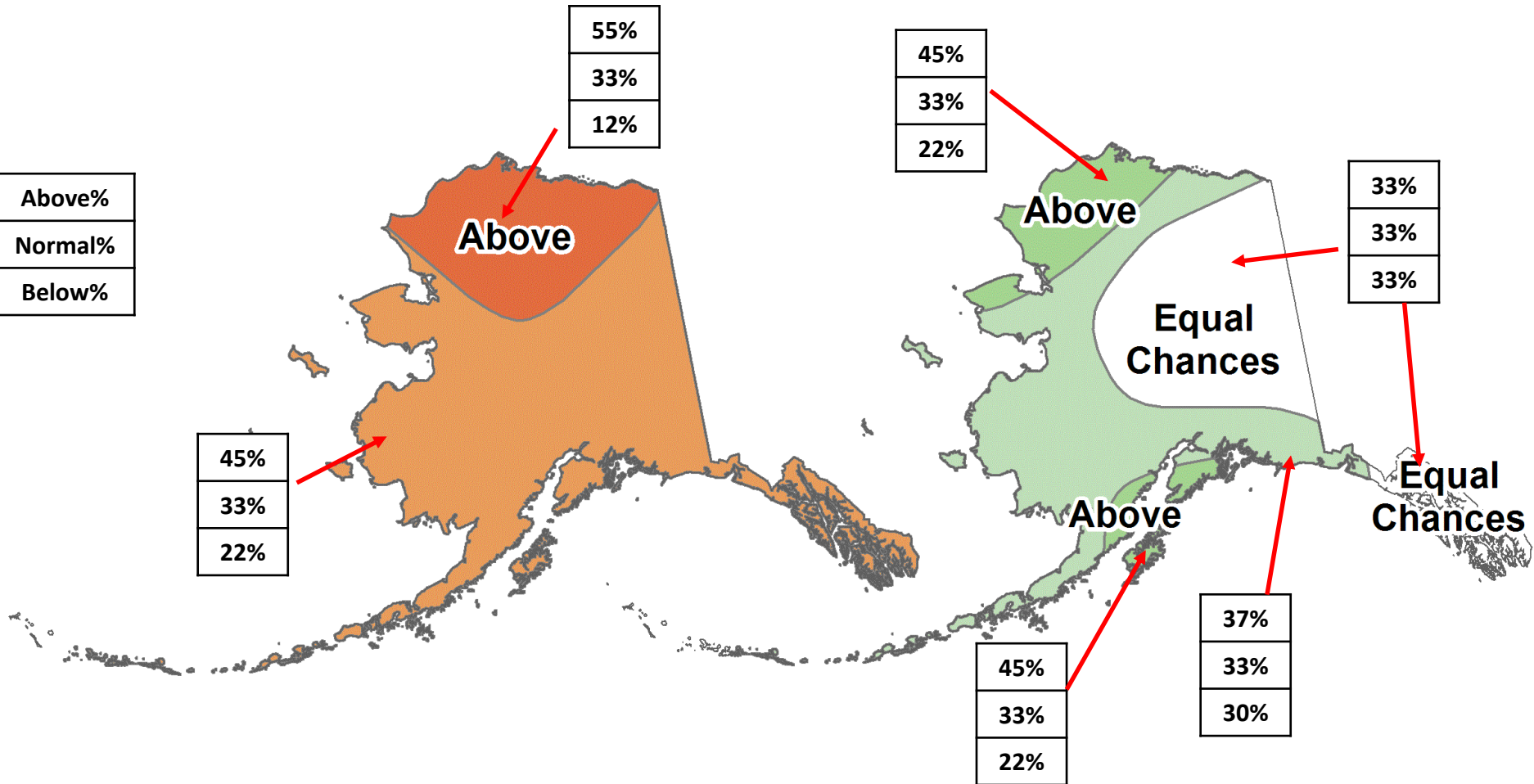
October-December
Average Temperature



October-December
Total Precipitation



CPC October-December 2023 Outlook

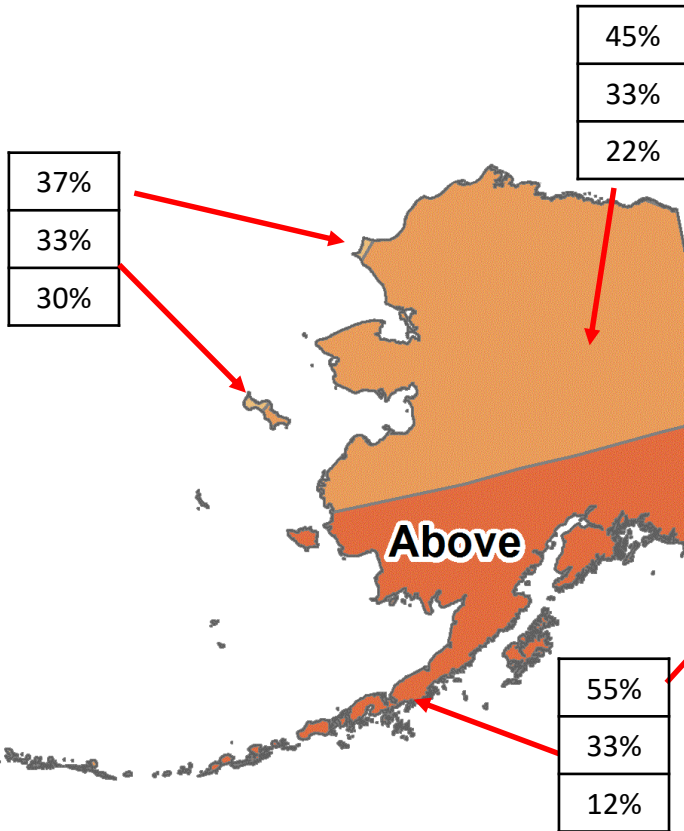


Temperature Outlook

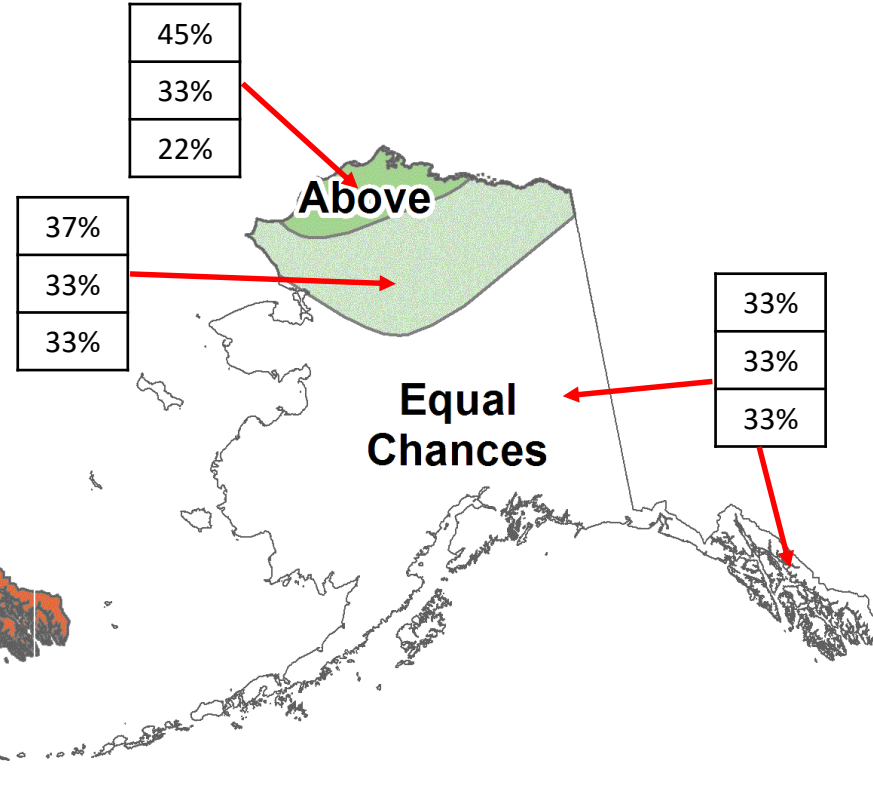
Precipitation Outlook



CPC December-February 2023-24



Average Temperature Outlook



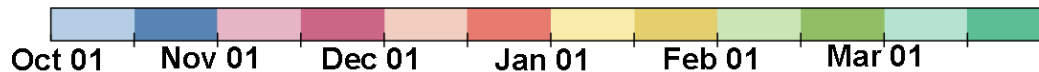
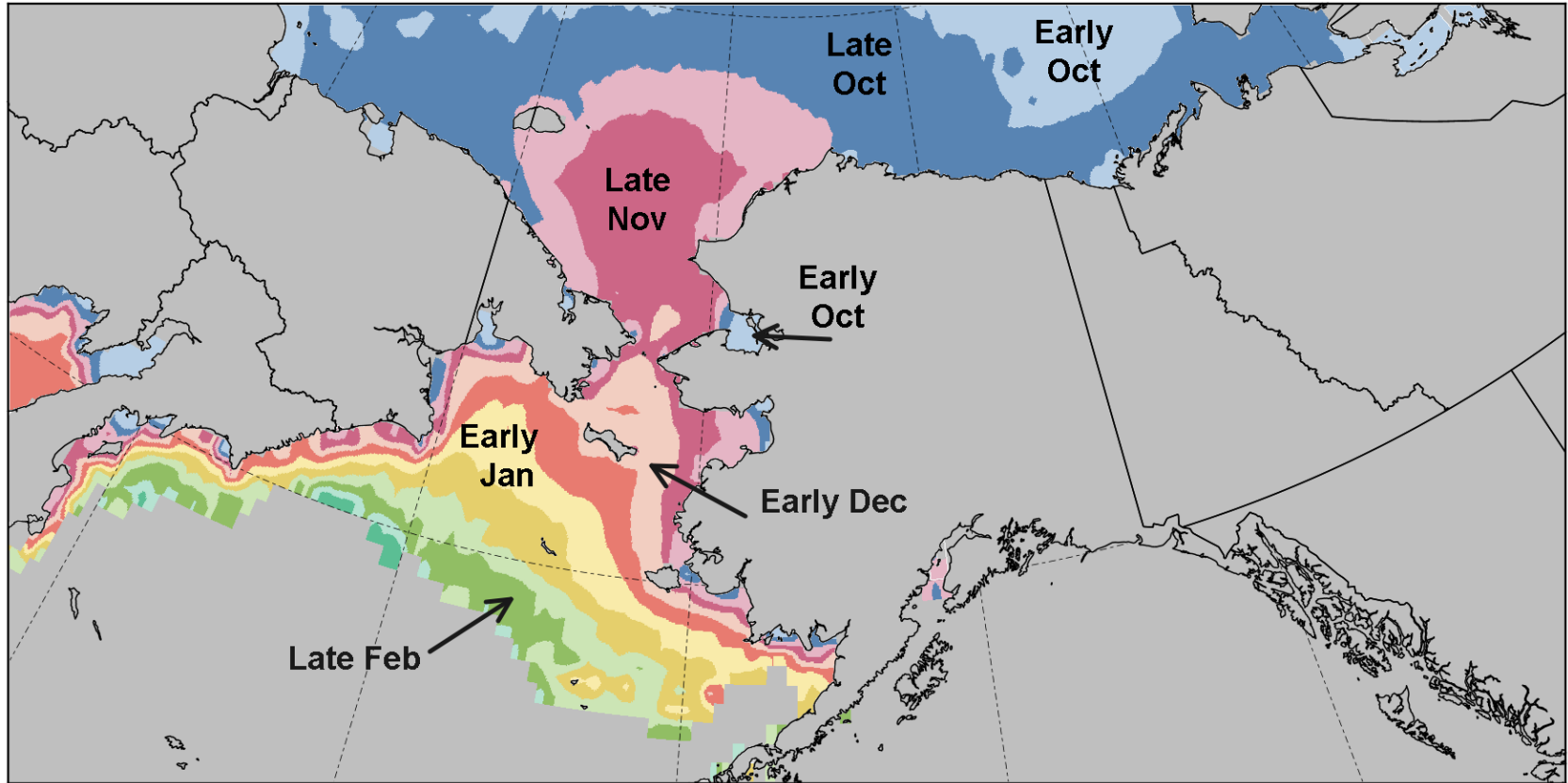
Total Precipitation Outlook

Above%
Normal%
Below%



Autumn 2023 Sea Ice Outlook

Sea Ice Freeze-Up: First Date Concentration ≥ 15 Percent
Autumn/Winter 2023-24



Thanks very much



Summer Solstice at Sitka
Photo: SEDA

