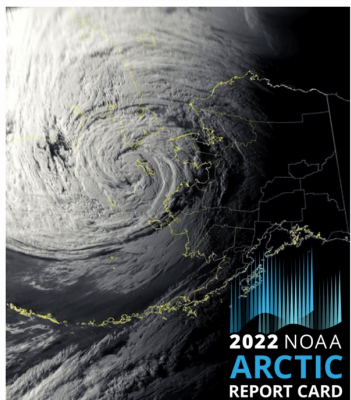
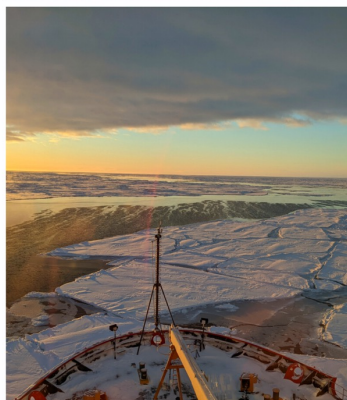




Arctic Report Card 2022

The warming Arctic reveals shifting seasons, widespread disturbances, and the value of diverse observations



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Updates from the Arctic Report Card

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Key Scientific Motivations

Issued annually since 2006, the Arctic Report Card is a timely and **peer-reviewed** source for clear, reliable and concise environmental information on the **current state** of different components of the **Arctic environmental system** relative to historical records.

- **Vital Signs:** Reported annually
 - Surface air temperature; Terrestrial snow cover; Precipitation; Greenland Ice Sheet; **Sea ice; Sea surface temperature; Ocean primary productivity;** Tundra greenness
- **Indicators:** Updated every few years
 - E.g., Lake ice; **Fisheries;** Permafrost; Wildfires; **Seabirds**
- **Frostbites:** New and upcoming topics
 - E.g., Arctic pollinators; **Marine noise; Human perspectives; Societal impacts**
- 2022: 147 authors from 11 countries



Synthesizing Key Findings

2022 Arctic-wide headlines

Storms and extreme weather

Wildfires, extreme weather, and other disturbances becoming more frequent.

Sea ice thickness and volume

Rebounded from near-record low levels in 2021; still well-below 1980s-90s conditions.

Arctic warming

Annual surface air temperatures sixth warmest since 1900.

WIDESPREAD DISTURBANCES

Ocean traffic

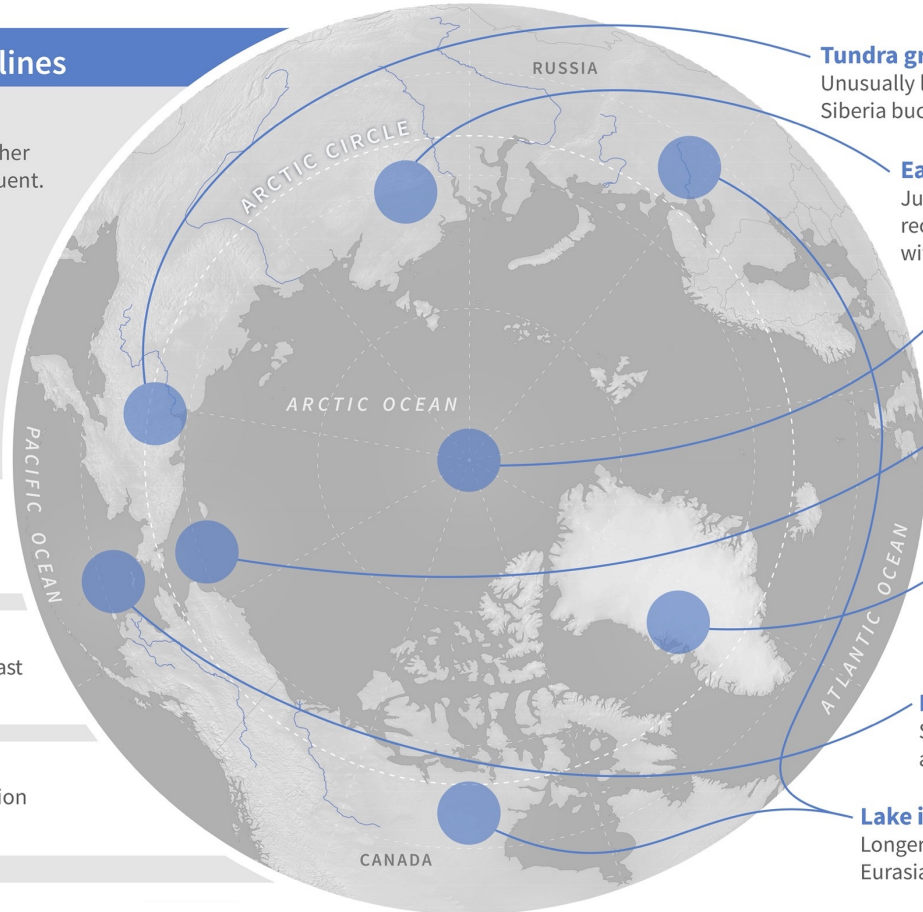
Maritime ship traffic increasing as sea ice diminishes.

Seabird die-offs

Sixth consecutive year of beach-cast seabirds in Bering Strait region.

Increased precipitation

Significant increase in precipitation across all seasons since 1950s.



Tundra greening

Unusually low greening in Northeastern Siberia bucked Arctic-wide trend.

Early snow melt

June snow cover third lowest on record across Eurasia, aligning with Arctic-wide trends.

Open water at North Pole

Waters highly navigable by ice strengthened vessels.

Chukchi Sea

Persistent summer sea ice due to cooler surface waters and north winds.

Greenland melting

Unprecedented September melt-event across 36% of the ice sheet.

Pacific Arctic storms

Storms dominated summer and fall causing disruptions.

Lake ice differences

Longer than average ice durations in Eurasia and shorter in North America.



Dissemination

Website + 3-min Video

Arctic Report Card

Tracking recent environmental changes relative to historical records

[2021 Arctic Report Card Home >](#)

[Archive of previous Report Cards and videos >](#)



Video



[Visit the 2021 Report Card](#)

What's New?

Rapid and pronounced warming continues to drive the evolution of the Arctic environment

Cascading disruptions, extreme events, and increasing variability throughout the Arctic impact the safety and well-being of communities within and far away from the Arctic.

About the Arctic Report Card

Issued annually since 2006, the Arctic Report Card is a timely and peer-reviewed source for clear, reliable and concise environmental information on the current state of different components of the Arctic environmental system relative to historical records.

The Report Card is intended for a wide audience, including scientists, teachers, students, decision-makers and the general public interested in the Arctic environment and science.

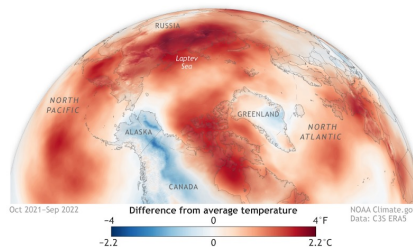
Image Credit: Icebergs (Ilulissat, Vestgröndland, Greenland) by Greenland Travel via Flickr

Congressional & Stakeholder Briefings

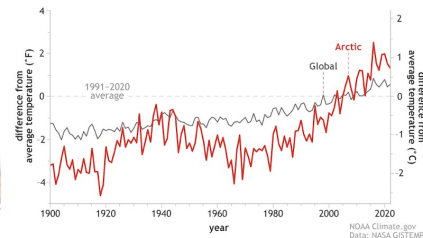


Climate.gov Graphics

2022 was Arctic's
6th-warmest year on record



Arctic warming outpacing
the global average



Media Coverage



AON partnership for Value Tree Analysis

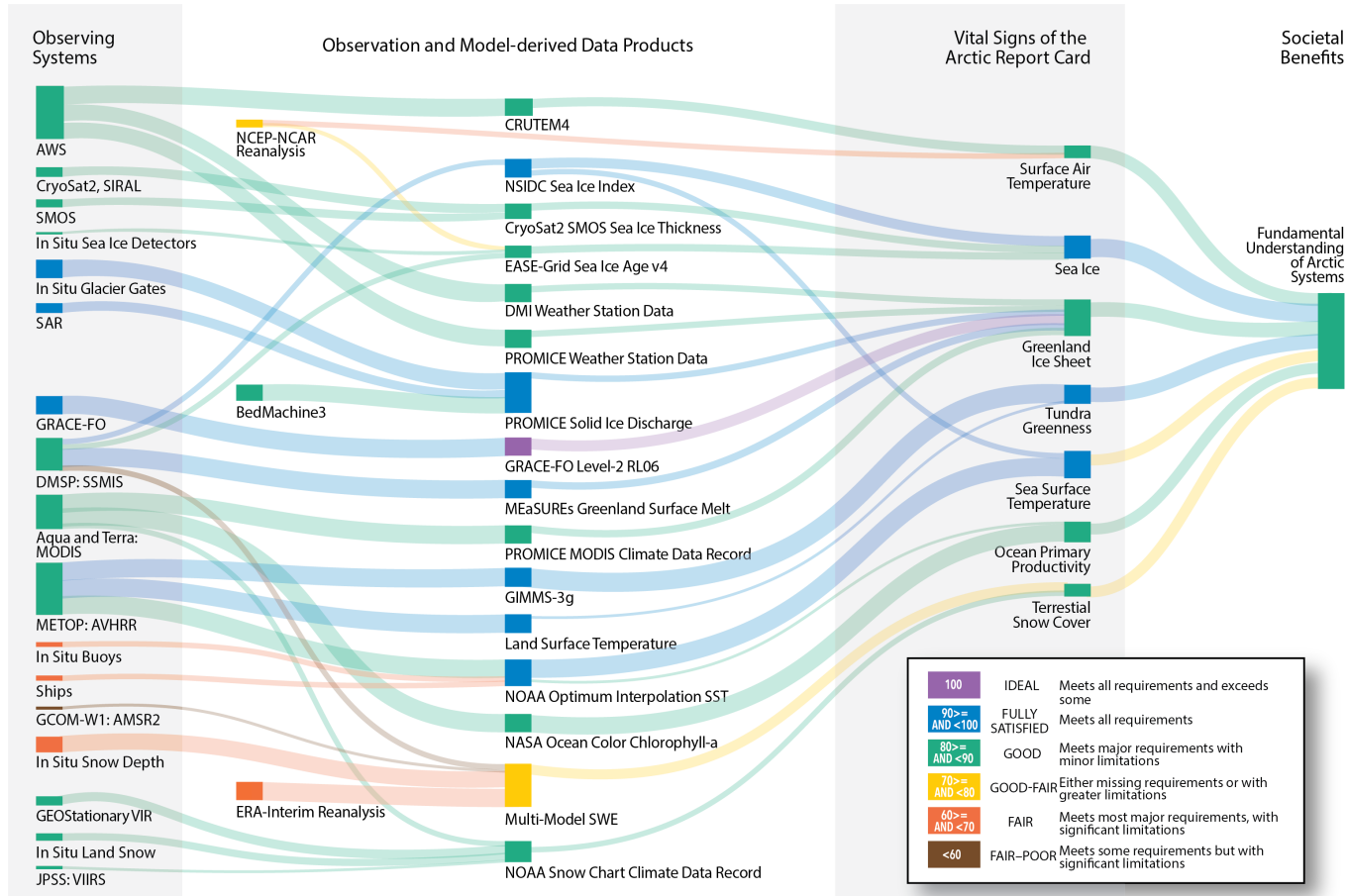



Figure from 2020 ARC



Arctic Data Center portal

Hosted by the Arctic Data Center

 Sign in with ORCID



Arctic Report Card Data Portal

Issued annually since 2006, the Arctic Report Card (<https://arctic.noaa.gov/Report-Card>) provides clear, reliable, and concise environmental information on the current state of different components of the Arctic environmental system relative to historical records. This portal compiles the publicly available datasets that inform the key findings in the 2020 Vital Signs. In the coming years, it will include the "Frostbites" and "Other Indicators."

About

Value Tree Analysis

Data

Metrics

This portal links to datasets used in the Arctic Report Card

A view of the sea ice of the Arctic Ocean as seen from the deck of the USCGC Healy Icebreaker. Photo by Ute Kaden (TREC 2005), Courtesy of ARCUS.



Continued Data Portal improvements require focused support.



Looking Ahead

- Focus: Keep each year's Report Card fresh and engaging as we see ongoing and difficult changes in the Arctic.
- Focus: Provide a view that incorporates Arctic residents' experiences and makes connections across a complex system.
- We would love to hear from you! Suggest potential topics for future Arctic Report Cards.
 - Google form: <https://forms.gle/ZZ45zNyi2sidNHdK7>

