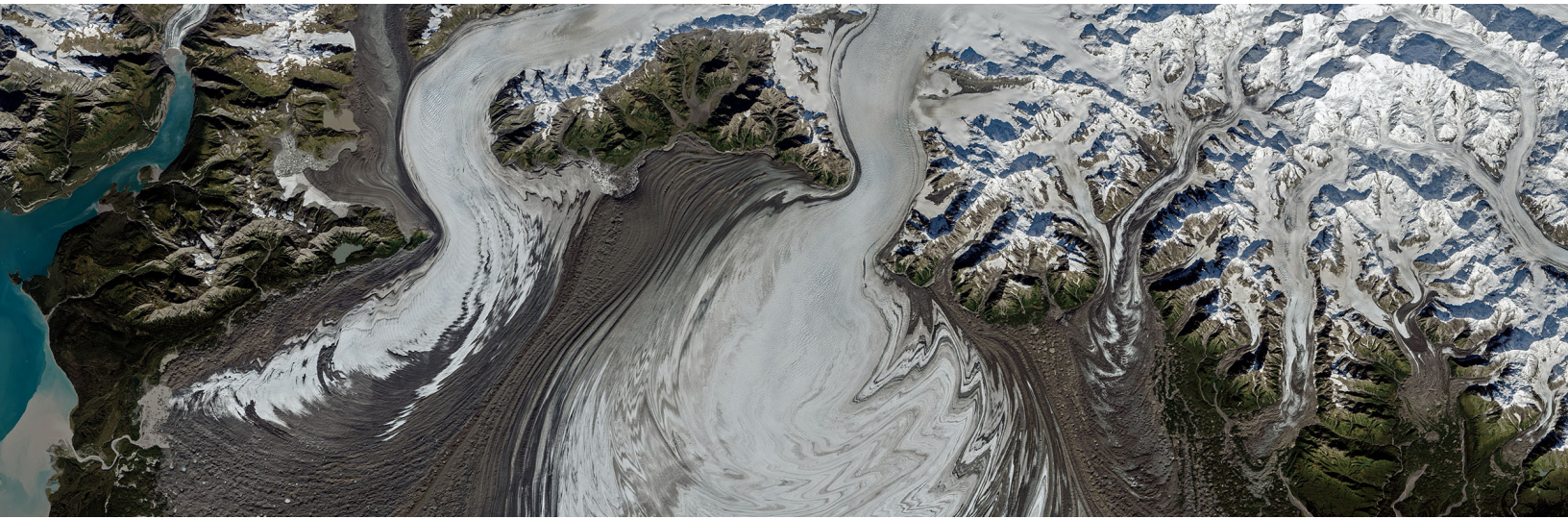




National Snow and Ice Data Center

Advancing knowledge of Earth's frozen regions



About Us

The National Snow and Ice Data Center (NSIDC) at the University of Colorado Boulder is a non-profit scientific research and data management organization that is a part of the Cooperative Institute for Research in Environmental Sciences. We conduct innovative scientific research and provide open data to enable scientists, journalists, policymakers, educators, and the general public to better understand how Earth's frozen realms, known as the cryosphere, affect the rest of the planet and impact society.

NSIDC Products and Services



Scientific Analysis

Scientific analysis and insights on how regions of the cryosphere are changing



Educational Content

Educational content about the cryosphere and why it matters



Scientific Research

Scientific research focusing on the polar regions, the cryosphere, and related climate processes



Data Management

Stewardship and free distribution of scientific data from Earth-observing satellites, airborne remote sensing campaigns, field studies, historical observations, and more



Specialized Tools and Support

Software tools that allow users easier access to data



Why our work matters

- As climate change warms the planet, Earth's frozen regions are rapidly changing. Sea ice and glaciers are disappearing, permafrost is thawing, and snow is turning to rain.
- The cryosphere is an important component of the global climate system, and the changes taking place here affect communities, habitats, sea levels, ocean currents, air temperatures, and so on.
- The more we understand the changes occurring in the cryosphere, the more we know about the other changes occurring across our planet, and the better prepared we will be as a society to mitigate the challenges ahead.

What we do

SCIENTIFIC RESEARCH

Since 1976, NSIDC scientists and staff have worked to improve global awareness and understanding of cryospheric changes and their future impacts. Our science team is made up of highly experienced physical and social scientists who work on a diverse portfolio of research projects.

- NSIDC focuses on various features of the cryosphere—including snow, glaciers, ice sheets, sea ice, ice shelves, and permafrost—and aspects like data sovereignty for Indigenous Peoples.
- Research projects span the cryosphere, including places like the Arctic Ocean, Antarctica, Alaska, Canada, the Rocky Mountains, Greenland, and the Himalayas.
- NASA, the National Science Foundation (NSF), the National Oceanic and Atmospheric Administration (NOAA), and the Department of Energy (DOE) are just a few of our funders.

DATA MANAGEMENT

NSIDC data management programs focus on preserving, documenting, and providing access to cryospheric and related geophysical data. NSIDC also manages and stores scientific data for government agencies like NASA, NOAA, and the U.S. Navy. Working with data producers and users, NSIDC creates tools and resources to make data more accessible.

NSIDC data collections include:

- cryosphere-related data from Earth-observing satellite missions, airborne surveys, field observations, weather stations, historical records, and data rescue projects;
- data produced by NSIDC scientists and other researchers in the cryospheric sciences;
- and Indigenous Knowledge and observations from Arctic regions that are documented and shared in an ethical manner to support community goals for data sharing, use, and preservation.