



SUPPORT NSIDC ARCHIVES AND RESOURCE CENTER



The Roger G. Barry Archives and Resource Center at the National Snow and Ice Data Center maintains a unique and rare collection, documenting early polar exploration and the first scientific expeditions to the far reaches of our planet. These collections provide researchers priceless historical insight into how the Earth's polar and icy regions have changed. As a soft money funded organization with no endowment, our facility is under threat. Traditional funding sources no longer support the collection. Your donation will help create an endowment to sustain these resources for research into the future. Please support us today.

ABOUT NSIDC ARCHIVES AND RESOURCE CENTER



Crevasse in the Upper Zadazan Glacier, Switzerland 1894. Courtesy: H. F. Reid/NSIDC

Polar and glacial exploration began in the 1850s. In these first ventures, the lines between heroism and madness sometimes blurred. Woefully unprepared or inexperienced groups ventured across thousands of miles of ice sheet or frozen pack ice, usually spending years in the process. Starvation, hypothermia, and disorientation claimed the lives of many explorers. For those who survived the extremes, NSIDC's archival collection bears witness to their valuable observations and measurements.

NSIDC has gathered records from the early days of polar exploration (1850 to 1970). The archives stocks an impressive collection of old polar books, selected for their first-person descriptions or meticulous records of early ventures to the poles. Our renowned, globe-spanning Glacier Photograph Collection provides witness to a warming planet.

THE PLACE OF ARCHIVES IN RESEARCH TODAY

Modern geography and climate study proceeds by comparing old and new measurements. How different are our polar regions now, from say, a hundred years ago? Without archives, and historical collections, our quest for data can only go back so far. The digital era for Earth science data begins in the mid-1970s, when major shifts in climate began in earnest. Satellites and other modern data show us that glaciers are retreating, sea ice is shrinking, and polar oceans are warming. We can see an earlier springtime for northern plants, and a much earlier snowmelt. Archived records from the earliest observations reveal how unusual these changes are, and can document the first stages of change.

THE PLACE OF ARCHIVES IN RESEARCH TOMORROW

Successful research relies on accurate, stable and accessible records and data; its results confront a questioning public, urging societies and governments into action. If you live near a glacier and records show drastic changes, you take notice. You think about our future.

AN ESSENTIAL RESOURCE

Collection and preservation of photos, field notes, rare books, measurement logs, and hundreds of other types of records from the pre-digital past are a boon to researchers who track change. Reading Nansen's descriptions of Arctic sea ice in the 1880s, or the weather records of expeditions to Australia, Antarctica, or central Africa, gives a historical perspective on changes in sea ice and climate. In many cases, early measurements are quite accurate—for example, early maps of the ice fronts of Greenland's glaciers.



RESEARCH USING NSIDC ARCHIVES



Pedersen Glacier, Alaska, 1917. Courtesy: L. H. Pedersen/NSIDC



Pedersen Glacier, Alaska, 2005. Courtesy: B. F. Molnia/NSIDC

TRACKING CHANGES IN ALASKA'S GLACIERS

Bruce Molnia, a USGS research geologist, uses repeat photography, a technique of comparing a historical image with a contemporary one within the same field of view, to determine qualitative and quantitative similarities and differences. With images dating as far back as the middle of the 19th century, Molnia's research examines the extent and significance of Alaska's thinning, retreating, or stagnating glaciers.

EXTENDING THE SEA ICE EXTENT RECORD

The Dehn Collection of Arctic Sea Ice Charts (1953 to 1986) extends the satellite record of ice conditions in the seas off Alaska and the coasts of western Canada. More than 6,800 charts offer ice edge positions, ice concentrations and other information through notations within the charts themselves.

GREENLAND SNOW PIT AND CORE STRATIGRAPHY

Carl S. Benson's Greenland field notebooks and analyses of snow accumulation, temperature, ice sheet faces and snow densification are available in the archives and are being used to compare current conditions to those back in the 1950's.

PLEASE HELP OUR ARCHIVES SURVIVE

Maintaining an archive requires money for infrastructure and trained people, who must document and manage material carefully to secure its accessibility a century from now.

Please donate to keep our archive alive and bountiful, to understand our evolving climate, and to honor our past.

“When I pass, I want to be sure that this material is in a place where it will be preserved as well as accessible to others, and I hope added to as time goes on.”

—*William O. Field,*

*pioneer glaciologist who began collecting glacier images in 1932
and continued until his death in 1994*

DONATE HERE

Our goal: \$25,000 by May 2013



nsidc.org/rocs/support.html

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