

# National Snow and Ice Data Center: Antarctic Data Management Support

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The National Snow and Ice Data Center (NSIDC) operates two Antarctic data management projects for the National Science Foundation's Office of Polar Programs (OPP).

The U.S. Antarctic Glaciological Data Center (AGDC) provides data management for the U.S. Antarctic Glaciological Program and related cryospheric science investigations. AGDC archives and distributes physical and geochemical data from ice cores, ice surface elevations, ice thickness, and bedrock topography, snow accumulation data and 10-meter temperatures, ice velocity measurements from remote sensing imagery and field survey data.

The U.S. Antarctic Data Coordination Center (USADCC) provides a U.S. focus for the development of data set descriptions (metadata in the form of Directory Interchange Format entries) for the Antarctic Master Directory (AMD). The AMD contains more than 3000 data set descriptions submitted by 22 countries with Antarctic science programs. The USADCC provides access to easy to use web based tools to create metadata, and can advise investigators on compliance with the OPP Guidelines and Award Conditions for Scientific Data.

Recent data acquisitions for the AGDC include AWS, GPR, and GPS data for the megadunes region of East Antarctica (Scambos, Fahnestock), ice core data from medium-depth coring at the South Pole (Severinghaus), Siple Dome ice core data (Saltzman and Aydin), Siple Coast radar data (Conway and Raymond), and ITASE glaciochemical data (Dixon and Mayewski). Further, we are providing documentation and links to the PI-generated distribution site for Amundsen Sea Embayment aero-geophysical data.

NSIDC is also pursuing new approaches to data representation, data discovery, and data ordering through the use of interactive geo-spatial search tools. The Mosaic of Antarctica serves as a basemap, implementing a Minnesota Map Server functionality that contains several additional data and metadata layers. The site is useful for quick evaluation of potential field site, and for locating more detailed data available upon request.