

Workshop on the U.S. Antarctic Meteorological Data Delivery System, Boulder, Colorado, 10–11 September 1987

C. S. Hanson,¹ R. G. Barry,¹ and C. R. Stearns²

The Polar Coordination and Information Section of the Division of Polar Programs at the National Science Foundation (NSF/DPP) sponsored a meeting of 28 representatives from organizations that collect, process, transmit, archive, or use meteorological data collected at U.S. Antarctic stations. This workshop, convened by the World Data Center A (WDC) for Glaciology, and the National Snow and Ice Data Center (NSIDC) met at the University of Colorado at Boulder on 10–11 September 1987. Workshop participants considered the present flow of data from Antarctic stations to end users. A set of recommendations was drafted to address problem areas in collecting, archiving, and accessing the data. Charles Stearns of the University of Wisconsin chaired the workshop, which was organized by Roger Barry, director of WDC/NSIDC, and by Claire Hanson of User Services at WDC/NSIDC.

The recommendations pertain to data collection, entry and display at observing stations, transmission of real-time data from Antarctica, the flow of data into permanent archives, and data access for the user. The types of data and data products considered included surface, and upper-air data, data from satellites, buoys, and automatic weather stations, numerical analyses, and historical data sets.

An oversight committee chaired by NSF/DPP, to monitor progress in implementing recommendations of the workshop was proposed. The committee would convene task groups charged with developing action plans for

- 1) more-systematic training of weather observers;
- 2) replacement of manual data coding and voice data coding at U.S. Antarctic stations with automated systems;
- 3) improved telecommunications within and from Antarctica;
- 4) improved data flow onto the World Meteorological Organization's Global Telecommunication System (GTS);
- 5) designation of NOAA/NESDIS/NCDC as the permanent archive for surface data and upper-air data from

- U.S. Antarctic stations, with a memorandum of understanding regarding timely entry of data into the archive;
- 6) designation of a permanent archive for hard-copy analyses now held at the Naval Postgraduate School, Department of Meteorology;
 - 7) increased data collection in data-sparse regions such as the coast of West Antarctica, the interior of Queen Maud Land, and the area surrounding the South Pole;
 - 8) the assembly of "clean" buoy data sets;
 - 9) enhancement of current archives of numerical analyses, including publication of inventory information;
 - 10) preparation of a computerized catalog of satellite data sets with Antarctic coverage, produced cooperatively by the archiving organizations, to ensure that valuable data are protected for future use;
 - 11) ensuring archival of historical data sets that are identified by the workshop participants as valuable;
 - 12) requiring recipients of federal grants for Antarctic research to provide well-documented data sets to the appropriate data center(s), with funds provided for the preparation and maintenance of the data sets;
 - 13) development of a "common," computerized data catalog of U.S. Antarctic meteorological data, in harmony with NSF, NOAA, and NASA efforts currently underway;
 - 14) assuring that NCDC-archived data sets are available in a timely manner, in forms and formats that are "portable" to systems designed for interactive use; and development of machine-independent software to access the data.

The workshop's recommendations have been presented to NSF/DPP. Proceedings of the workshop, including a preliminary inventory of U.S. Antarctic meteorological data, are published in *Glaciological Data, Report GD-20* (World Data Center A for Glaciology, January 1988.)

¹ National Snow and Ice Data Center, Cooperative Institute for Research in Environmental Sciences, Campus Box 449, University of Colorado, Boulder, Colorado 80309

² Department of Meteorology, University of Wisconsin, 1225 West Dayton Street, Madison, Wisconsin 53706