

ing station to improve orbital data for the polar region. The orbital data improve the ephemeris data that support the geodetic control field surveying and upgrade and densification of the existing geodetic networks in Antarctica. The USGS South Pole seismic stations serve as key stations in the Worldwide Standardized Seismograph Network. These data are used by the USGS National Earthquake Information Service to help locate earthquake epicenters and origin times for seismic wave propagation.

The USGS manages the Scientific Committee on Antarctic Research library for the NSF and the U.S. Antarctic Program. The library is the official depository and distribution point for antarctic aerial photographic and cartographic products produced by the United States. The library has approximately 450,000 black-and-white and color aerial pho-

tographs of the Antarctic dating from Operation Highjump (1946–1947) through the 1989 field season. The library also houses geodetic control records, satellite images, maps, charts, and publications. Maps, charts, and publications are exchanged with nations under the provisions of the Antarctic Treaty.

In 1989, the NSF, in cooperation with the BGN and the USGS, published an antarctic gazetteer containing feature names and locations. It is being revised for publication in 1994 to include descriptive text of the features and geographic names approved by the BGN since 1989. The published names and new names data are part of a computer-based Geographic Names Information System.

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Antarctic Marine Geology Research Facility, 1992–1993

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The 1992–1993 project year (1 June 1992 to 31 May 1993) has been an exceptionally busy time at the National Science Foundation's Antarctic Marine Geology Research Facility (AMGRF) at Florida State University. In addition to the normal activities of sample distribution and sediment description, the AMGRF has received two new core shipments (including the first material from the R/V *Nathaniel B. Palmer*), produced several new publications, and hosted a workshop on Antarctic Glacial-Marine and Biogenic Sedimentation. These activities are summarized below.

A total of 4,026 samples was distributed to investigators worldwide. This is a significant increase from the previous project year's total of only 1,129 samples. Requests received by the curator were taken from the following cruises and drilling projects:

- USNS *Eltanin*: 1,561 samples;
- ARA *Islas Orcadas*: 661 samples;
- USCGC *Glacier*: 555 samples;
- R/V *Polar Duke*: 1,241 samples;
- Ross Ice Shelf Project: 8 samples;
- Dry Valley Drilling Project: 1 sample.

Two new shipments of cores have been received. These include 75 piston and gravity cores and 30 trigger cores from cruise 92-2 of the R/V *Polar Duke* to the Antarctic Peninsula (United States Antarctic Program 1992), which arrived on 6 July 1992; and 13 trigger cores from cruise NBP93-1 of the R/V *Nathaniel B. Palmer* to the Powell Basin, northern Antarctic Peninsula, which arrived on 10 June 1993.

Approximately 200 samples from *Eltanin* core 14-6 were returned to the AMGRF by Per Bodin (Lamont-Doherty Earth Observatory). Nineteen piston cores are on temporary loan to Rice University for x-ray analysis (8 *Eltanin*, 7 *Glacier*, 4 *Polar Duke*).

The facility hosted several visiting scientists this project year during the following dates: 3–4 June 1992, Barrie Dale (University of Oslo); 3 August 1992, Wuchang Wei (Scripps Institution of Oceanography); 21–22 September 1992, Scott Borg (National Science Foundation); 22–23 September 1992, Charles Holmes (U.S. Geological Survey, Denver); 13–18 October 1992, Patricia Manley and Dan Bissel (Middlebury College); 15–18 October 1992, Eugene Domack (Hamilton College); 8–11 December 1992, Tony Rathburn (Duke University and Australian National University); 9–16 January 1993, Juliane Fenner (Federal Institute for Geosciences and Natural Resources, Hannover, Germany); 11–13 January 93, Scott Ishman (U.S. Geological Survey, Reston); 13 January 1993, Ralph Llewellyn (University of Central Florida); 29 March–19 April 1993, Leanne Dansie (Australian National University); and 30 March–2 April 1993, Carl Wolfeich (Woods Hole Oceanographic Institution).

In addition, on 30–31 March 1993, the AMGRF hosted a "Workshop on Antarctic Glacial-Marine and Biogenic Sedimentation," a premeeting shortcourse held in conjunction with the Southeastern Section Meeting of the Geological Society of America in Tallahassee. This workshop, which was attended by 30 professionals and graduate students, was taught by John Anderson (Rice University, glacial-marine sedimentation), Eugene Domack (Hamilton College, glacial-marine stratigraphy and paleoclimate analysis), Scott Ishman (U.S. Geological Survey, antarctic foraminifera), and Amy Leventer (Byrd Polar Research Center, antarctic diatoms). Participants were from the following institutions: Florida State University, University of Alabama, Rice University, University of Colorado, Woods Hole Oceanographic Institution, Ohio State University, Hamilton College, U.S. Geological Survey (Reston), and the Australian National University.

The AMGRF produced three publications during the project year. First were sediment descriptions for the 1986 and 1987 austral summer cruises of the USCGC *Glacier* (Bryan 1992, 1993a). These are available upon request to the curator to all interested geoscientists, perspective users of the AMGRF, and libraries. In addition, a two-volume set of course notes resulted from the workshop on glacial-marine sedimentation (Bryan 1993b). These notes are available for a small fee. Interested parties should contact the AMGRF curator for details. Sediment descriptions for material collected by the R/V *Polar Duke* 1986, 1988, 1989, 1990, and 1991 cruises (Jeffers and Anderson 1986; Anderson 1988; Domack 1988; Lawver and Villinger 1989; Anderson and Bartek 1990; Anderson 1991) are near completion.

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Antarctic Meteorological Research Center: 1992-1993

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The functions of the Antarctic Meteorological Research Center (AMRC) are the following:

- To collect, process, archive, and display all possible satellite and ground-based meteorological data at McMurdo Station, Antarctica, for research applications.
- To collect all useful and available synoptic meteorology products from sources other than Antarctica, such as the synoptic outputs of the Australian Bureau of Meteorology and the University of Wisconsin.
- To distribute the antarctic meteorological data to all interested parties over Internet in Man-computer Interactive Data Access System (McIDAS) format (at present).

The figure shows the AMRC data flow for 1993. Some parts of the data flow are discussed in the following paragraphs.

The first activity of the AMRC was to collect the satellite imagery available every 3 hours at the Space Science and Engineering Center (SSEC), University of Wisconsin, Madison, Wisconsin; form a composite image; and save the image

to an optical disk. The image is of the 11.5- to 12.5-micrometer (surface temperature) band: the image is 1 megabyte in size; the resolution is 10 kilometers. The regions without data in the 50-minute sampling period are black. The geostationary satellites used and the longitude are GOES-7, 112°W; GMS, 140°E; Meteosat-3, 0°; and Meteosat-4, 75°W. The polar-orbiting satellites are NOAA-11 and NOAA-12. The time of the composite images is within 50 minutes of the indicated time on the final image. The image extends from the South Pole to approximately 34°S in the corners, with New Zealand in the upper left-hand corner and to 58°S at the edges closest to the South Pole. The image contains all of the antarctic continent and the flight path between Christchurch, New Zealand, and McMurdo Station.

The goal for the AMRC during the 1992-1993 season was to make the initial installation of the McIDAS in the Crary Science and Engineering Center (CSEC) at McMurdo Station. The team, consisting of John T. Young, co-principal-investigator; Tom Whittaker, programmer; and John Pyeatt, pro-