

On 7 February 1984, I returned to McMurdo Station then went on to Amundsen-Scott South Pole Station to cover the transition of that station from summer to winter operations. I conducted more interviews trying to learn as much as I could about communications, station operation, medical conditions, and ongoing scientific studies. Back at McMurdo, I conducted more interviews. I was interested in the details of specific studies and operations and also in what they could predict about both the scientific and political future of Antarctica.

I left McMurdo Station on 16 February on board the USCGC *Polar Sea*. From its deck, I observed the first helicopter and boat landings on Siple Island off the coast of Marie Byrd Land.

When the *Polar Sea* reached Palmer Station, I disembarked and boarded the R/V *Hero* (see figure). On board the *Hero*, I observed research projects designed to study krill, shrimp-like creatures that are sometimes found in huge "superswarms" in the southern oceans. I disembarked at Teniente Marsh Base on King George Island and stayed there from 29 March to 8 April interviewing Chilean families and personnel from both Chile's Marsh Base and the Soviet Union's Bellingshausen Base. The R/V *Hero* returned, and on 12 April, I accompanied the *Hero's* crew to Argentina's Almirante Brown Base to document the fire that had destroyed that base and the successful evacuation of its personnel. The R/V *Hero* made ports of call at Argentina's Jubany Base and Poland's Arctowski Base.

To complement the information gathered in Antarctica, I went to Tokyo, Japan from 21 to 31 May to cover—from the outside—the informal mineral-rights negotiations meetings conducted by the Antarctic Treaty Consultative Nations. Although the meetings were closed to the press, I conducted interviews with many of the delegates there to get a grasp on



The R/V *Hero*, which is based at Palmer Station, is a research vessel owned by the National Science Foundation. I conducted interviews on board the *Hero* and at its ports of call during my second trip to the Antarctic.

the complexities of the Antarctic Treaty system.

My article is scheduled to be published in *Smithsonian Magazine* in two parts in October and November 1984.

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Antarctic Marine Geology Research Facility and Core Library, 1983-1984

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The role of the Florida State University's (FSU) Antarctic Marine Geology Research Facility and Core Library within that of the U.S. Antarctic Research Program (USARP) is largely one of service in response to a demand by scientists throughout the world for samples from the collections stored at the facility and for information pertaining to these collections. Services provided for the year 1 June 1983 to 31 May 1984 include, in addition to the distribution of samples, the receiving and processing of new materials, describing cores, and performing miscellaneous tasks associated with visitor needs.

Samples were distributed from the more than 16,000 meters of piston, trigger, Phleger, and drill cores, and from dredged, trawled, and grabbed sediments comprising the USARP collection. The following specifies sample sources.

Eltanin: FSU distributed 5,236 samples from 111 piston cores collected aboard 24 of the 47 coring cruises; eight samples were removed from two trigger cores of two cruises and four samples from four Phleger cores of one cruise. FSU also distributed 141 samples from 109 Blake and Menzies trawls, Campbell and Petersen grabs, and rock dredges from 23 cruises.

Islas Orcadas: Researchers sampled 41 piston cores and 63 trigger cores for 258 and 101 samples, respectively. Cores sampled represent each of the five coring cruises of this vessel.

International Weddell Sea Oceanographic Expedition (IWSOE): Laboratory scientists took 144 piston core and 32 Phleger core samples from four piston and four Phleger cores retrieved aboard the 1968 and 1970 IWSOE cruises of USCGC *Glacier*.

Operation Deep Freeze 1979 (USCGC Glacier): FSU distributed 127 samples from four piston cores and one sample from a Dietz-LaFond grab, recovered off the Adélie and George V coasts.

Operation Deep Freeze 1982 (USCGC Glacier): Researchers removed 48 samples from 12 piston cores and 67 samples from 63 Dietz-LaFond grabs, all retrieved off the coast of the northern Antarctic Peninsula.

Dry Valley Drilling Project (DVDP): FSU distributed 12 samples from one drill hole (DVDP 4, Lake Vanda).

Distribution of these 6,179 samples, which were taken from 422 different cores, dredges, trawls, and bottom grabs recovered aboard 43 cruises of three vessels, and from one drill

hole of DVDP, was to 29 investigators representing 20 institutions in five countries (Argentina, Brazil, Yugoslavia, Sweden, and the United States). Smear slide samples (numbering several hundred) are not included in this total, nor are miscellaneous core segments and rock samples sent on-loan to scientists for nondestructive measurements and X-radiography.

Inventory records for the year show that:

- The 6,179 samples were distributed on the basis of 41 separate requests (an average of 25 samples per working day, one request every 6 working days, and 151 samples per request), and
- more than half of the total number of samples were taken from *Eltanin* core, dredge, trawl, and grab samples collected between 1962 and 1964 (cruises 3 through 14).

These statistics reflect the highly active status of the USARP sediment collection in custody at the Antarctic Research Facility. (Note: Approximately 250 bagged splits of grab samples and the sampling halves of 360 meters of piston and trigger cores retrieved aboard USCGC *Glacier* during austral summers 1980–1981, 1981–1982, and 1982–1983 are currently in temporary storage at Rice University for active study and sampling by project scientists under the direction of John B. Anderson. Samples taken at that institution are not included in the FSU sample distribution totals.)

Core receipt for the year was limited to approximately 275 meters of frozen drill core recovered from southern Victoria Land's eastern Taylor Valley (ETV) by members of a U.S. Geological Survey field team participating in the third drilling season of the Dry Valleys/McMurdo Sound Magnetostatigraphy and Sedimentology Project. Received on 23 April 1984, the shipment consisted of 93 boxes of core (655 kilograms) recovered from drill holes ETV-9 through ETV-13. ETV drill core in storage at FSU now totals 442 meters.

FSU also received approximately 150 kilograms of frozen rock specimens collected in Antarctica's dry valleys by E. Imre Friedmann (FSU Department of Biology) and 50 kilograms of grab and other bag samples recovered by John B. Anderson (Rice University) aboard *Glacier* during the austral summer 1979–1980 in the Ross Sea (Anderson and Kurtz 1980). The latter specimens had been held for study since 1980 by Anderson. Miscellaneous sample residues also were returned to the collection.

FSU completed core descriptions of the 148 piston and trigger cores (315 meters), 120 grab samples, and miscellaneous bagged recovery (24 samples) of sediments retrieved aboard USCGC *Glacier* during austral summer 1981–1982 (northern Antarctic Peninsula). We also completed the descriptions of the 21.9 meters of piston-core sediment (17 cores), 22 grab samples, and miscellaneous bag samples recovered aboard *Glacier* during austral summer 1982–1983 (Ross Sea-Sulzberger Bay area).

In preparation by staff of the facility are the final stages of compilation of a volume of sediment descriptions for the austral summers 1981–1982 and 1982–1983 materials (Kaharoeddin et al. 1984). This volume will be the twenty-second in a series of various documents (Goodell 1964, 1965, 1968; Frakes 1971, 1973; Simkin et al. 1973; Dry Valley Drilling Project 1974, 1975, 1976; Cassidy et al. 1977-a, 1977-b; Kaharoeddin 1978; Webb 1978, 1979; Anderson et al. 1981; Elston, Robinson, and Bressler 1981; Kellogg et al. 1981; Kaharoeddin et al. 1979, 1980, 1982, 1983) that present the descriptions and attendant data of cored and otherwise obtained sediments comprising the USARP collection in storage at the FSU facility.

Highlights of this year's activity with respect to visitor traffic involve three major programs: those of (1) the U.S. Geological Survey (USGS) (Menlo Park) aboard the USGS research vessel,

Samuel P. Lee, operating in waters of the Ross Sea and adjacent continental margins; (2) the Brazilian Antarctic Program (PRO-ANTAR), and (3) CIROS (Cenozoic Investigations in the Western Ross Sea), a New Zealand drilling project (Barrett 1982).

USGS personnel made two visits to FSU for 35 millimeter continuous strip-film color photography of selected USNS *Eltanin* and USCGC *Glacier* piston cores retrieved from areas to be investigated by the January 1984 cruise of *Samuel P. Lee*.

A contingent of visiting scientists from Brazil, representing the Federal University of Rio Grande of the South (Porto Alegre) and the Federal Division of Geology and Mineralogy (Brasilia), provided operational liaison between PROANTAR interests in Antarctica and the resources of the FSU Antarctic Research Facility with respect to sample availability in the region of the recently established Brazilian base (Commandante Ferraz) on King George Island.

The expedition manager of the Victoria University of Wellington's (New Zealand) field drilling team for Project CIROS also visited FSU. The CIROS project is expected to recover 1,500 meters of drill core over a 3-year period beginning with the 1984–1985 field season. Although it is exclusively funded by the New Zealand government, the project is of interest to a considerable number of U.S. investigators concerned with the history of Cenozoic glaciation in the Ross Sea/McMurdo Sound area. In support of this interest, the National Science Foundation has agreed to the FSU facility being designated as the depository for one-half splits of all CIROS core. Coordination of U.S. research interests in these materials will be the responsibility of Peter Noel-Webb (Ohio State University).

A particularly valuable resource available to visitors is the Antarctic Reference Library, a collection of reprints, maps, reference volumes, serial publications, and other literature comprising several thousand items that document high-latitude investigations in, around, or related to Antarctica, with special emphasis being placed upon the acquisition of publications that concern the results of analyses performed upon samples distributed from the sediment collections. An active exchange of publications is maintained with institutional and individual members of the antarctic research community.

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References

- Anderson, J.B., and D.D. Kurtz. 1980. *The scientific program—USCGC Glacier Deep Freeze 80, cruise report*. Houston, Texas: Rice University, Department of Geology.
- Anderson, J.B., S.B. Davis, E.W. Domack, D.D. Kurtz, K.M. Balshaw, and R. Wright. 1981. *Marine sediment core descriptions, IWSOE 68, 69, 70; Deep Freeze 1979*. Houston: Rice University, Department of Geology.
- Barrett, P.J. 1982. *Proposal for Cenozoic Investigations in the Western Ross Sea (CIROS)*. (Internal document.) Wellington: Victoria University of Wellington, Antarctic Research Centre.
- Cassidy, D.S., F.A. Kaharoeddin, I. Zemmels, and M.B. Knapp. 1977-a. *USNS Eltanin: an inventory of core location data, with core location maps and cruise 55 core descriptions*. (Contribution 44). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Cassidy, D.S., P.F. Ciesielski, F.A. Kaharoeddin, S.W. Wise, Jr., and I. Zemmels. 1977-b. *ARA Islas Orcadas cruise 0775 sediment descriptions*. (Contribution 45). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Dry Valley Drilling Project. 1974. *Dry Valley Drilling Project Bulletin*. (Vol. 3). DeKalb, Ill.: Northern Illinois University.
- Dry Valley Drilling Project. 1975. In M.G. Mudrey, and L.D. McGinnis

- (Eds.), *Dry Valley Drilling Project Bulletin*. (Vol. 5). DeKalb, Ill.: Northern Illinois University.
- Dry Valley Drilling Project. 1976. In P.J. Barrett, and S.B. Treves (Eds.), *Dry Valley Drilling Project Bulletin*. (Vol. 7). DeKalb, Ill.: Northern Illinois University.
- Elston, D.P., P.H. Robinson, and S.L. Bressler. 1981. *Stratigraphy, sedimentology, and paleomagnetism of the Coral Ridge sand body, eastern Taylor Valley, Victoria Land, Antarctica*. (U.S. Geological Survey Open File Report 81-1303.) Washington, D.C.: U.S. Government Printing Office.
- Frakes, L.A. 1971. *USNS Eltanin core descriptions, cruises 32–45*. (Contribution 33). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Frakes, L.A. 1973. *USNS Eltanin sediment descriptions, cruises 4–54*. (Contribution 37). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Goodell, H.G. 1964. *Marine geology of the Drake Passage, Scotia Sea, and South Sandwich Trench*. (Contribution 7). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Goodell, H.G. 1965. *Marine geology, USNS Eltanin, cruises 9–15*. (Contribution 11). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Goodell, H.G. 1968. *USNS Eltanin core descriptions, cruises 16–27*. (Contribution 25). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A. 1978. *ARA Islas Orcadas cruise 1176 sediment descriptions*. (Contribution 46). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A., M.R. Eggers, E.H. Goldstein, R.S. Graves, D.K. Watkins, J.A. Bergen, and S.C. Jones. 1980. *ARA Islas Orcadas cruise 1578 sediment descriptions*. (Contribution 48). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A., M.R. Eggers, R.S. Graves, E.H. Goldstein, J.G. Hattner, S.C. Jones, and P.F. Ciesielski. 1979. *ARA Islas Orcadas cruise 1277 sediment descriptions*. (Contribution 47). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A., R.S. Graves, J.A. Bergen, M.R. Eggers, D.M. Harwood, C.L. Humphreys, E.H. Goldstein, S.C. Jones, and D.K. Watkins. 1982. *ARA Islas Orcadas cruise 1678 sediment descriptions*. (Contribution 50). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A., R.S. Graves, J.A. Bergen, S. Knüttel, and P.F. Ciesielski. 1983. *USCGC Glacier Operation Deep Freeze 1981, Bransfield Strait and eastern Amundsen Sea piston core descriptions*. (Contribution 51). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kaharoeddin, F.A., S. Knüttel, G.E. Wiegand, T.H. Lang, R.S. Graves, C.L. Humphreys, and P.F. Ciesielski. 1984. *USCGC Glacier: Operations Deep Freeze 1982 and 1983 sediment descriptions*. (Contribution 52). Tallahassee: Florida State University, Department of Geology, Sedimentology Research Laboratory.
- Kellogg, T.B., D.E. Kellogg, K.R. Melanson, and K.G. Austin. 1981. *USCGC Glacier 1976 and 1978 cruises, Ross Sea, Antarctica, sediment descriptions*. Orono: University of Maine at Orono, Department of Geological Sciences and Institute for Quaternary Studies.
- Simkin, T., N. Wilson, S. Francisco, L. Thomas, and R. Hekinian. 1973. *Inventory of rock samples from antarctic seas, cruises 3 to 45 of USNS Eltanin*. (Unpublished data on computer printout.) Washington, D.C.: Smithsonian Oceanographic Sorting Center, Geology Section.
- Webb, P.N. 1978. *Initial report on geological materials collected at RISP site J-9, 1977–1978*. (RISP Technical Report 78–1). Lincoln: University of Nebraska, Ross Ice Shelf Project Management Office.
- Webb, P.N. 1979. *Initial report on geological materials collected at RISP site J-9, 1978–1979*. (RISP Technical Report 79–1). Lincoln: University of Nebraska, Ross Ice Shelf Project Management Office.

World Data Center-A for Glaciology antarctic-related activities, 1983–1984

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The World Data Center-A for Glaciology (Snow and Ice) (WDC-A) has been involved in 1983 with several antarctic data management, analysis, and archiving projects.

Because of the climatic significance of antarctic snow- and ice-phenomena, WDC-A organized and convened a specialist workshop to address the problems of antarctic climate-related data. The workshop, sponsored by the Scientific Committee on Antarctic Research (SCAR), was held in conjunction with the XVIII General Assembly of the International Union of Geodesy and Geophysics at Hamburg, Federal Republic of Germany on 14–15 August 1983. Twelve participants and six observers (from eight countries) representing the major disciplinary fields of antarctic climate research and specialists on data management took part. A summary of the workshop discussions and recommendations is published in *Glaciological Data Report, GD-15*, June 1984 (Barry 1984-b).

The workshop participants recommended: implementation of a data management strategy for antarctic climate data; preparation of a detailed catalog of existing data; release of antarctic data promptly via existing archiving channels; preparation of standardized readily accessible digital sets of meteorological data for the antarctic region; and publication of a standardized annual synopsis of antarctic climate data. The recommendations are specifically directed to SCAR, but they are also being forwarded to the World Meteorological Organization (WMO) Executive Committee on Working Group on Antarctic Meteorology, the WMO World Climate Data Programme, and the relevant World Data Centers.

The workshop report also presents a preliminary survey of antarctic data sets, based on materials submitted by the workshop participants. A summary of data categories, observational sources, networks, and disposition for the broad subject areas of synoptic meteorology, climatology, oceanography, and glaciology is included as an appendix. A preliminary inventory of data held by various archives (in Australia, England, Japan, New Zealand, Norway, Poland, and the United States) is also provided. Future updates are planned to make this compilation more comprehensive.

The report contains a comparison of recent studies of antarctic sea ice area prepared by A.P. Sturman, Visiting Fellow, and Mark Anderson, Graduate Research Assistant, at the University of Colorado's Cooperative Institute for Research in Environmental Sciences (CIRES). Seven sea-ice data sets are inter-compared. All data sets were derived from the Navy/National