

scale satellite image mosaic of the Thurston Island-Jones Mountains area. LANDSAT imagery is also being used as a revision tool for compilation and revision of medium- and small-scale maps of antarctic coastal regions.

Polar Research Board, 1974-1975

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The Polar Research Board (PRB), formerly the Committee on Polar Research (see July/August 1975 *Antarctic Journal*, page 203), was established in 1958 by the National Academy of Sciences. It advises the United States on research in the polar regions and it adheres to the Scientific Committee on Antarctic Research (SCAR) of the International Council of Scientific Unions (ICSU) on behalf of the National Research Council. James H. Zumberge is PRB chairman and serves as U.S. delegate to SCAR. The work of PRB is supported by the National Science Foundation (NSF) and the Office of Naval Research (ONR).

The 36th PRB meeting was held in Jackson Hole, Wyoming, on 6 September 1974, and its 37th meeting was in Fairbanks, Alaska, on 1-2 April 1975. The Fairbanks meeting was followed by a field trip to the North Slope (3-4 April 1975). Five PRB panels and five *ad hoc* study groups held meetings, including four workshops. Members also participated in eight meetings of SCAR working groups, and in eight international conferences.

Major PRB activities planned for 1975-1976 include (1) preparing a comprehensive science program for the proposed Nansen Drift Station, (2) assessing NSF's role in the Arctic with recommendations for future directions, and (3) hosting an international conference on living marine resources of the southern ocean.

International activities

On behalf of the National Research Council, PRB hosted the Third SCAR/International Union of Bio-

logical Sciences (IUBS) Symposium on Antarctic Biology in Washington, D.C., on 26 to 30 August 1974, and the XIII Meeting and Plenary Sessions of SCAR in Jackson Hole, Wyoming, on 3 to 7 September 1974. Reports on the symposium and meetings were in the January/February 1975 *Antarctic Journal* (pages 30-31 and 26-29).

Symposium on Remote Sensing in Glaciology and meetings of the SCAR working group on glaciology, the International Antarctic Glaciological Project (IAGP), and the International Glaciological Society, 15 to 28 September 1974, Scott Polar Research Institute, Cambridge, England. Colin B. Bull, Charles R. Bentley, and Wilford F. Weeks represented PRB at these meetings.

International Coordination Group for Southern Oceans (IOC), 15 to 20 July 1974, Buenos Aires, Argentina. Sayed Z. El-Sayed represented PRB and SCAR at the meeting.

Second International Polar Experiment (POLEX) Planning Conference, 20 September to 4 October 1974, Norsk Polarinstitutt, Oslo, Norway. Members of the joint POLEX panel (D. James Baker, Jr., Norbert Untersteiner, William J. Campbell, Knut Aagaard, W. Lawrence Gates, Gunter E. Weller, and J. S. Winston) participated in discussions of POLEX, a subprogram of the Global Atmospheric Research Program (GARP).

SCAR group of specialists on marine living resources of the southern ocean, 6 to 8 October 1975, Cambridge, England. Dr. El-Sayed, group convener, and Donald L. Siniff participated in the meeting, which was held in response to an invitation from the Eighth Antarctic Treaty Consultative Meeting for advice on antarctic marine living resources. The meeting laid the groundwork for a larger international conference on marine living resources of the southern oceans to be held in the United States in mid-1976.

Domestic activities

Polar Research Board, 4 September 1974, Jackson Hole (36th meeting). The meeting's agenda included the following: A. N. Fowler reported on recent developments in NSF's Office of Polar Programs; U. Radok discussed the emerging NSF climate dynamics program; Dr. Weeks reported on the status of the Arctic Offshore Program; T. L. Péwé recommended that the *ad hoc* permafrost study group be disbanded and that a new standing panel or committee on permafrost be formed; Drs. Baker, Weller, Radok, and E. F. Roots reviewed the POLEX-North and POLEX-South programs, the Arctic Ice Dynamics Joint Experiment (AIDJEX), and the International Southern Ocean Study (ISOS); Dr.

El-Sayed and V. T. Neal reported on the second session of the IOC International Coordination Groups for the Southern Oceans, held in Buenos Aires on 15 to 20 July 1975; C. Craddock reported on plans for the Third SCAR/International Union of Geological Sciences Symposium on Antarctic Geology and Geophysics; R. H. Rutford and B. L. Hansen discussed the Ross Ice Shelf Project (RISP); W. S. Benninghoff and Dr. El-Sayed reported on the Third SCAR/IUBS Symposium on Antarctic Biology; Dr. El-Sayed reviewed a meeting of the SCAR subgroup on marine living resources; Dr. Benninghoff discussed the International Aerobiology Program; Dr. Bentley reported on IAGP; Drs. Bull and Zumberge discussed a proposal for disposing nuclear wastes in polar ice sheets; Dr. Weeks reported on the forthcoming Symposium on Remote Sensing in Glaciology, held at Scott Polar Research Institute on 15 to 21 September 1974.

Polar Research Board, 1-2 April 1975, Geophysical Institute, University of Alaska, Fairbanks (37th meeting). The agenda included reports on research by the University of Alaska, including the Geophysical Institute (K. B. Mather), the Institute of Marine Sciences (D. H. Hood), the Center for Social, Economic and Governmental Research (V. Fischer), the Institute of Arctic Biology (G. C. West), the Arctic Environmental Information and Data Center (D. M. Hickok), and the Naval Arctic Research Laboratories (W. W. Denner); reports on the trans-Alaska pipeline (R. Ellis, W. B. Parker, and O. G. Simpson); reports by W. B. Parker and R. Weeden on Alaska's concerns on oil and gas development; reports on Canadian programs by E. F. Roots and G. D. Hobson on the MacKenzie Valley pipeline inquiry, on the Canadian Beaufort Sea Project, and on the Polar Continental Shelf Report; report by Dr. Untersteiner on AIDJEX; reports on the Arctic Offshore Program by Dr. Weeks and J. E. Heg; a report on the Bureau of Land Management/National Oceanic and Atmospheric Administration (BLM/NOAA) Alaska Outer Continental Shelf Program by W. H. Hess; a report by Dr. Péwé on recent activities of the permafrost panel, including the formation of *ad hoc* study groups on offshore permafrost and the Alaska pipeline, and sponsoring a workshop on the trans-Alaska pipeline; reports by Drs. Baker, Untersteiner, and W. W. Kellogg on POLEX, ISOS, and on the International Study Conference on the Basis of Climate and Climate Modeling; a report by Mr. Heg on plans for the Eighth Antarctic Treaty Consultative Meeting, held in Oslo, Norway, on 9 to 20 June 1975; a report by Mr. Fowler on recent activities of the Office of Polar Programs.

In executive session, PRB was briefed on the restructuring of the National Research Council. Reorganizing of PRB was discussed, and its executive

committee was asked to prepare a plan. Members were requested to submit nominations for new PRB members to replace retiring ones. Comments were heard on the permafrost panel's reports, *Problems and Priorities for Offshore Permafrost Research and Opportunities for Permafrost-Related Research Associated with the Trans-Alaska Pipeline System*. Concern was expressed over the apparent lack of a clear U.S. position on mineral and marine living resource exploitation of Antarctica. A report from SCAR's working group on glaciology opposing the disposal of nuclear wastes in Antarctica was approved. The executive secretary was instructed to notify the SCAR secretariat that PRB preferred the dates of 20 to 30 October 1976 for the XIV SCAR meeting. A unanimous resolution was approved that chairman Zumberge, whose term of service was due to expire in December 1975, be asked to continue as chairman for another 2 years and that National Research Council approval be sought.

Field trip, 3-4 April 1975, North Slope of Alaska. The board and its panel on permafrost participated in a fact-finding trip to Alaska's North Slope to familiarize themselves with (1) the Naval Arctic Research Laboratory, (2) the Native Arctic Slope Regional Corporation, (3) the AIDJEX main experiment (then in progress), and (4) the oil development activities at Prudhoe Bay and offshore.

Joint PRB/GARP/Committee on Atmospheric Sciences/Ocean Science Board Polar Experiment (POLEX) panel. The panel report, *U.S. Contribution to the Polar Experiment (POLEX), Part II: POLEX-GARP (South)*, was issued in January 1975.

Panel on permafrost, 7 December 1974, National Academy of Sciences. The panel was organized in December 1974 in response to a request from NSF and the Interagency Arctic Research Coordinating Committee (IARCC). Two study groups were established: the *ad hoc* Alaska pipeline study group was charged with developing a document identifying permafrost research opportunities associated with the trans-Alaska pipeline; the *ad hoc* study group on offshore permafrost was charged with developing a definitive program for arctic offshore permafrost research. The panel formulated a resolution for PRB consideration, calling the attention of the Secretary of the Interior to the unique research opportunities available during construction of the trans-Alaska pipeline.

Panel on permafrost, 31 March to 1 April 1975, University of Alaska, Fairbanks. The meeting's agenda included the following: discussion of offshore permafrost studies; review and approval of the report, *Problems and Priorities in Offshore Permafrost Research*; a report on the trans-Alaska Oil Pipeline Workshop; discussion and approval of the report, *Opportunities for Permafrost-Related Research Associated with the Trans-Alaska Pipeline System*; discussion

of Alyeska's archeological program associated with construction of the trans-Alaska pipeline and approaches for relating this activity to the report's recommendations; review of plans for the Third International Conference on Permafrost, Canada, 1977; resolution supporting the Building Research Advisory Board's recommendations for translating Soviet papers from the Second International Conference on Permafrost.

Ad hoc *Alaska Pipeline study group, 19 to 23 March 1975, Scottsdale, Arizona.* The ad hoc Alaska pipeline study group held a workshop and prepared a report, *Opportunities for Permafrost-Related Research Associated with the Trans-Alaska Pipeline System.* Workshop participants included representatives from industry, Federal agencies, universities, and the State of Alaska.

Ad hoc *study group on offshore permafrost, 16 December 1974, Menlo Park, California, and 20-21 January 1975, Calgary, Manitoba, Canada.* The ad hoc study group prepared the report, *Problems and Priorities in Offshore Permafrost Research.* It reviews the need for permafrost research in the Beaufort Sea region in light of emerging offshore oil exploration and exploitation.

Ad hoc *study group on snow research and control, 21-22 February 1975, Fort Collins, Colorado.* The ad hoc study group was established to formulate a general strategy for snow research and control. The study group is preparing a report stating the importance of snow research and providing a focus for future snow research in the United States and Canada. A three-person writing group met 18-19 June 1974 in Tacoma, Washington, to prepare a final draft.

Ad hoc *study group on glaciers and ice sheet sliding, 14 January 1975, Hanover, New Hampshire.* The ad hoc study group has been preparing a report on the research required to better understand glacier and ice sheet sliding.

Ad hoc *committee on the Fridtjof Nansen Drift Station, 11 August 1975 and 3 to 5 November 1975, Washington, D.C.* The ad hoc committee was established to formulate a sound and comprehensive research program to maximize the return on the proposed Nansen Drift Station, Eurasian Basin, Arctic Ocean. The committee met 11 August 1975 to consider its terms of reference and to plan for a workshop scheduled for 3 to 5 November 1975 at the National Academy of Sciences.

During 1974-1975, PRB issued the following reports:

Priorities for Basic Research on Permafrost.

Earth Science Investigations in the U.S. Antarctic Research Program (USARP) for the Period July 1, 1973-June 30, 1974.

Abstracts, Third SCAR/IUBS Symposium on Antarctic Biology, August 26-30, 1974.

Documents of XIII Meeting of SCAR.

U.S. Antarctic Research Activities, 1974-75 and U.S. Antarctic Research Activities Planned for 1975-76 (report 17 to SCAR).

Opportunities for Permafrost-Related Research Associated with Trans-Alaska Pipeline System.

Most of the above reports, including those mentioned earlier, are available from the Polar Research Board, National Academy of Sciences, 2101 Constitution Avenue, Washington, D.C. 20418.

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After the December 1974 publication of Folio 18, "Antarctic mammals," effort was concentrated on preparation of Folio 19, the final number of the *Antarctic Map Folio Series*.

Folio 19, "History of antarctic exploration and scientific investigation," was published in October 1975. One of the fifteen plates in the folio is devoted to early concepts of Antarctica dating back to A.D. 43. Eight of the plates are maps showing tracks of exploratory voyages, airplane flights, and inland traverses from 1772 to 1954. On the map plates are brief highlights of the expeditions. The six remaining plates are devoted to accomplishments from 1954 to 1975, and include maps of traverses and locations of science stations in operation each year.

A discussion of human motivations for antarctic exploration, by Henry M. Dater, opens the folio. The rest of the folio was prepared by the staff of the American Geographical Society. A bibliography of the 280 sources used is included.

All folios, except the second, are available. Folio 2, which is out of print, may be obtained on color microfilm. To celebrate the series' completion, a special discount is being offered for single purchases of five or more folios (see September/October 1975 *Antarctic Journal*, page 285). All may be purchased directly from the American Geographical Society, Broadway at 156th Street, New York, New York 10032.