Arctic Science Summit Week 2007
Dartmouth College, Hanover, New Hampshire, USA
March 14-20, 2007

More than 200 scientists, engineers, policy makers and representatives of native peoples convened on the Dartmouth College campus, Hanover, New Hampshire for the Arctic Science Summit Week (ASSW) 2007 meeting from March 14-20. The summit of influential organizations engaged in Arctic and polar research and planning provided for international coordination of programs at the start of the 4th International Polar Year 2007-2008 (IPY). IPY is an intense, global campaign of coordinated polar observations and analysis with special relevance to understanding climate change and its consequences.

The ASSW 2007 was co-hosted by the Dickey Center for International Understanding at Dartmouth College and its Institute of Arctic Studies, along with the U.S. Army Engineer Research and Development Center's Cold Regions Research and Engineering Lab (CRREL). The ASSW organizations meeting at Dartmouth were: the International Arctic Sciences Committee (IASC), the Arctic Ocean Sciences Board (AOSB), the European Polar Board (EPB), the Pacific Arctic Group (PAG) and the Forum of Arctic Research Operators (FARO). Other participants include the US Polar Research Board, University of the Arctic, Arctic Monitoring and Assessment Program (AMAP), International Permafrost Association (IPA), Sustained Arctic Ocean Observing Network (SAON), Northern Research Forum (NRF), Heads of Arctic and Antarctic IPY Secretariats (HAIS), International Committee, Steering Committee for the International Conference on Arctic Research Planning (ICARP), Integrated Arctic Ocean Observing System (iAOOS), Arctic 8 - Nordic Council of Ministers Working Group, NyAlesund Science Managers Committee (NySMAC), and national representatives of the IPY.

The Science Day plenary session featured opening remarks by Dr. Arden L. Bement Jr., Director of the U.S. National Science Foundation about the importance of polar research for understanding climate change and its human dimensions. The necessity of new international partnerships to advance the research and outreach goals of the IPY was explored during a panel presentation with scientists and research funders from China, Russia, Denmark, Sweden, Canada and the United States. The remainder of Science Day featured individual talks by leading researchers on our changing atmosphere, oceans, and terrestrial ecosystems. A number of the talks compared the changing Arctic with observations made in Antarctica. The need for an integrated Arctic observing system was evident from the common themes linking the Science Day lectures. The critical importance of direct participation in Arctic research by indigenous northern people was also stressed. The keynote address by Dr. James White (University of Colorado) provided the scientific basis for climate change and pointed to the responsibility of polar scientists to communicate their knowledge to the public and to policymakers.

The U.S. Arctic Research Commission summary report on "Goals and Objectives for Arctic Research 2007" was released at ASSW and presented by Commission Chair,

Mead Treadwell. The Commission is the principal government body responsible for establishing national policy, priorities, and goals necessary to construct a federal program plan for basic and applied scientific research with respect to the Arctic.

The symposium, "Technology for Innovative Observation" focused on innovations in techniques and technologies to further polar research and the observation of global change. Cool Robots, designed to move across remote polar ice sheets and make environmental measurements were demonstrated.

During the plenary session Project Day, participants addressed how the legacy of IPY will emerge and discussed the process of developing of new funding and partnerships for polar research to sustain the goals of IPY. Reporting of significant developments from the 2nd International Conference on Arctic Research Planning (ICARP II) preceded a session highlighting successful and needed internationally coordinated initiatives for Arctic observations and for new partnerships to expand the international network of ice coring projects with new surface and deep ice cores collected from Greenland and Antarctica.

New additions to ASSW in 2007 were a scientific session and other events planned by Early Career Scientists to introduce them to the international science community. Senior mentors from the International Arctic Science Committee and the Arctic Ocean Science Board worked with and advised the Early Career Scientists on their ASSW program and will continue to serve as mentors. ASSW 2007 opened with a panel that addressed "Climate Change and the Arctic: The Policy Challenges" hosted by Dartmouth's Dickey Center for International Understanding and moderated by Dickey Director, Ambassador Kenneth Yalowitz. The panel grappled with the complexity of achieving a productive dialog around issues of Arctic change that fairly represented the views of scientists, native peoples of the North and policymakers.

The ASSW deliberations were noteworthy for the outstanding presentations on science, technology and research projects ongoing and planned in the Arctic and for pointing to promising new research avenues in many aspects of global warming. A major theme developed at the meeting was the need for interdisciplinary solutions to global warming issues, and for dialog and cooperation between the scientific community, policy makers and representatives of Native peoples to deal with them.

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