6th MEETING OF THE INTERNATIONAL ICE CHART WORKING GROUP

International Ice Services – The Next Five Years

October 24-28, 2005 Ottawa, Canada

Dear Recipient,

Please accept this letter as an invitation to participate in the **6th Meeting of the International Ice Charting Working Group (IICWG),** to be held in Ottawa, Canada, October 24-28, 2005. This year's meeting will be co-hosted by the Canadian Ice Service, U.S. National Ice Center, and International Ice Patrol as partners in the North American Ice Service (NAIS).

This notice is being distributed more widely than past IICWG meetings because the group is looking to expand its scope through the participation of more national ice services, especially from ice charting nations in the Southern Hemisphere.

In the years ahead, changing ice regimes and growing marine traffic are expected to increase the demand for operational ice information. Since its formation five years ago, the IICWG has helped operational ice services better meet the needs of national and international marine clients through coordination and cooperation in data sharing, standards, product development, and research activities.

The theme of this year's IICWG meeting will be '**International Ice Services – The Next Five Years'**

Specific sessions planned for this year's meeting include:

- 1- Day Science Workshop – Advances in ice monitoring, modeling and data assimilation
- 1- Day Technical Workshop – Interoperable Data Standards for Ice Information
- *The Next Five Years* – Challenges and Opportunities for Operational Ice Services
- IICWG *Letter of Cooperation* among Operational Ice Services
- GEO, GMES and satellite mission updates
- Technical Tours

We hope that you will give serious consideration to joining us at IICWG-6 to help us understand your clients, your service, and to work with other operational centres to meet today's and tomorrow's challenges serving our operational community.

Further information about IICWG 6, including the draft agenda, can be found at http://nsidc.org/noaa/iicwg/meetings.html . If you are interested in attending and/or have questions about the meeting, please contact the Local Organizer in Ottawa,
Dr. Roger De Abreu, Canadian Ice Service, 001-613-995-5125 – roger.deabreu@ec.gc.ca

We look forward to seeing you in Ottawa this fall.

Sincerely,

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IICWG Background

The ad-hoc International Ice Charting Working Group (IICWG) was formed in 1999 in recognition of:

- the common interests among nations and ice charting agencies in the safe use and protection of ice-covered seas

- the value of cooperative activities in providing operational ice services to support marine navigation

The IICWG provides a forum for coordination of ice matters, including icebergs, between operational ice charting agencies and other interested parties, and offers non-binding recommendations to national authorities on the effective provision of operational ice services. In addition, the IICWG is recognized as an advisory group to the Expert Team on Sea Ice (ETSI) of the WMO/IOC Joint Commission on Oceanography and Marine Meteorology (JCOMM), where formal international standards and practices for marine weather and oceanographic services are established.

Active participation in the IICWG since its inception includes:

- Canadian Ice Service
- Danish Meteorological Institute
- Finnish Ice Service
- Federal Maritime and Hydrographic Agency of Germany
- Icelandic Meteorological Office
- Norwegian Meteorological Institute
- Russian Federation Arctic and Antarctic Institute
- Swedish Meteorological and Hydrological Institute
- United States National Ice Centre
- US Coast Guard International Ice Patrol

The IICWG meets approximately every 12-18 months, hosted by a member organization. Past meetings have been held in Copenhagen, Reykjavik, Tromso, St. Petersburg and Hamburg. The current Co-Chairs of the IICWG are David Grimes of the Meteorological Service of Canada, and Richard Barazotto of the National Oceanic and Atmospheric Administration of the United States. The Terms of Reference for the IICWG are attached to this letter, as a means of providing you more detailed information regarding its ongoing activities.

There are currently two Standing Committees of the IICWG, which are responsible for much of the technical work between formal meetings of the Group. They are:

- Data, Information, and Customer Support -- Encompasses Data and Product Exchange; Terminology, Data and Mapping Standards; Training, Operations and Customer Support
- Science and Technology -- Encompasses Technology for Analysis and Forecasting and Applied Science, Research and Development

International Ice Charting Working Group

Terms of Reference

Adopted October 7, 1999

Recognizing the ongoing interest of the nations influenced by ice covered seas in the use and protection of these seas; and further recognizing the value and economics of cooperative activities in operational ice services supporting maritime navigation; the ice charting nations of the world hereby form the International Ice Charting Working Group.

The International Ice Charting Working Group provides a forum for coordination of ice matters, including icebergs, and offers non-binding recommendations to senior management as appropriate, working under the following Terms of Reference:

Data and Product Exchange

- Coordinate ice information, data exchange, supporting research, and communications for operational analysis and forecasting of sea ice and icebergs.
- Propose, and establish procedures for, data and product exchange agreements for the enhancement of services at all ice centers.
- Coordinate collection, maintenance, and distribution of archived sea ice and iceberg information, including climatological information, and recommend common practices where appropriate.

Terminology, Data and Mapping Standards

- Identify established standards at ice centers governing data and product format, data transfer, metadata, and other geographic information such as attributes and coastlines.
- Recommend adoption of common methodologies among ice centers where practical.
- Develop recommendations for possible changes to standards for forwarding to appropriate international organizations for consideration.

Operations and Customer Support

- Develop an understanding of each ice center's unique customer base and its impact on operations.

- Monitor customer requirements for ice services and make recommendations for generic strategic development that will allow ice centers to meet evolving customer needs.
- Identify and provide a mechanism for coordinating customer feedback to the operational process.
- Examine information dissemination processes within the ice centers and recommend efficiencies and new technologies where appropriate.
- Recommend the establishment of customer education initiatives that serve to enhance the ice centers' collective operational effectiveness.

Training

- Encourage exchange of technical knowledge through shared training initiatives, personnel exchange programs, and the loan of applicable equipment and tools.

Technology for Analysis and Forecasting

- Monitor development and implementation of advanced information technology as applied to new digital sea ice analysis and production techniques.
- Identify technology applications supporting efficient dissemination and exchange of data, products, and ice information services.
- Recommend areas of potential common interest for technology sharing.
- Identify emerging capabilities supporting sea ice and iceberg analysis and forecasting and recommend their integration into operations as appropriate.

Applied Science, Research and Development

- Identify research priorities for improved analysis and forecasting capabilities, and communicate and promote these priorities within national and international funding agencies.
- Identify research technologies available for transition to operations, and coordinate efforts to encourage their transition and validation through funding, logistical support, and cooperative verification and validation processes.
- Report on operational initiatives, and research and field programs, of broad interest across the ice charting community.
- Encourage and facilitate coordinated efforts in supporting ice research and development, including numerical ice prediction models, remote sensing applications, and digital image processing capabilities.