



17th Meeting of the International Ice Charting Working Group

Executive Summary Report

The 17th meeting of the International Ice Charting Working Group (IICWG) was held in Ottawa, Canada, October 24-28, 2016. The meeting was hosted by the Canadian Ice Service. Ninety-six attendees representing 48 organizations from 13 countries participated. The meeting included technical tours of the Canadian Ice Service and the Gatineau Satellite Station and Canadian Data Processing Facility.

The theme for the meeting was “*From Models to Forecast Products for Sea Ice and Icebergs*”.

Significant Outcomes

Chile Joins the IICWG

At this year’s meeting, the Chilean Navy Weather Service formally joined the IICWG. The Charter was signed at the meeting by LT Roberto Díaz Schall on behalf of Rear Admiral Mario Montejo Orellana, Director of Maritime Safety, Security, and Operations.

IMO Polar Code Implications for Ice Information

A plenary session on this topic included presentations on the implementation of the Polar Code in Canada (Transport Canada), Polar Code requirements for the Antarctic (British Antarctic Survey), Polar Code ice information for Greenland (Danish Meteorological Institute), a description of the POLARIS risk assessment tool (Lloyd’s Register), and perspectives on the Polar Code from the marine insurance industry. This last presentation, by Michael Kingston, invited the IICWG to participate in a “Best Practice Forum” to be held in London in mid-2017 under the auspices of the Arctic Council’s Protection of the Arctic Marine Environment (PAME) Working Group. The session resulted in several significant actions including: a commitment to participate in the Best Practice Forum; the creation of a task group to continue development of the POLARIS tool under Dave Jackson’s leadership, including a survey of Antarctic ship captains with assistance offered by the International Association of Antarctic Tour Operators (IAATO); and, an initiative to work with the Council of Managers of National Antarctic Programs (COMNAP) to define specific areas and times where satellite remote sensing data is most needed in order to help the European Space Agency optimize the acquisition of Sentinel-1 observations of the Antarctic.

Operational Ice Forecasts: Bridging the Gap from Models to Mariners

A full day of presentations and discussion was devoted to exploring the issues related to making ice models relevant to operational forecasts delivered to mariners. Initial presentations gave an overview of the current state-of-the-art in ice modelling and a look at activities planned for the Year Of Polar Prediction (YOPP – 2017-19). A panel of marine industry managers and ice captains discussed how well their needs are being met by ice forecasts. Breakout groups deliberated on these ideas and reported several key issues that must be addressed: there is a general mistrust of model output by both operational ice forecasters and mariners; there is a gap between mariner expectations and model outputs that can be largely attributed to the huge



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difference in the spatial scales they work at; mariners would like additional ice parameters analysed and forecast of which ice thickness and ice pressure are most needed; mariners want products that are simple, easy to understand, and that have an indication of confidence; and, good communication is essential to building trust between all of the parties involved.

Emergency Marine Incident Response

CDR Gabrielle McGrath of the U.S. Coast Guard led a table top exercise in emergency incident response. The exercise was created around a fictitious scenario in which a tug collided with a tanker in ice-infested waters resulting in an oil spill. The exercise involved all of the meeting participants who approached the incident from different perspectives - the mariners on board the vessels, the various ice services, the satellite data providers, and academia. CDR McGrath was supported in the exercise by two participants from Oil Spill Response Ltd. The exercise impressed on all of the participants the complexities of handling an emergency incident and the wide range of organizational interactions that are necessary. The IICWG endorsed CDR McGrath's attendance at an upcoming meeting of the Arctic Council's Emergency Prevention, Preparedness and Response (EPPR) Working Group to introduce the IICWG capabilities.

IICWG Strategic Vision

After 16 years of productive activity which has seen the implementation of common standards for ice charting globally, a long-term commitment to satellite observations of sea ice and icebergs, collaboration in ice analyst training and joint international production of ice charts, the development of ice information products for Electronic Navigation Charts, and the beginnings of operational ice charting by Southern Hemisphere states, the IICWG decided it was time to revisit its strategic vision for the coming 5-10 years. A task group comprised of members from several countries and organizations was established under the leadership of Dave Jackson to develop a document outlining the strategic objectives of the IICWG as well as a stakeholder engagement strategy. An initial draft is expected by May 2017.

IICWG-XVII News Release

The IICWG issued a news release noting that shipping industry interest in the polar regions has started to become focused in a few key areas including transport of natural resources out of the North, adventure tourism, Arctic community re-supply, and a steady use of Arctic routes by bulk cargo carriers. It stated that "Under the influence of amplified global climate warming, the Arctic Ocean is on a path to becoming seasonally ice-free during summer months, similar to conditions in the Baltic, Okhotsk or Labrador Seas. As interest in resources and new tourism experiences increases, timely and accurate forecasts of highly variable and dynamic ice conditions are critical for safe and efficient navigation. In the interest of maritime safety, the members of the IICWG are committed to continually improving their collective capabilities by sharing information and expertise."

IICWG-XVIII

The 18th Meeting of the IICWG will be held in Hobart, Tasmania during September 25-29, 2017 at the invitation of the Antarctic Climate and Ecosystems Cooperative Research Centre (ACE-CRC).

IICWG Secretariat – November 8, 2016