



## 15<sup>th</sup> Meeting of the International Ice Charting Working Group

### Executive Summary Report

The 15<sup>th</sup> meeting of the International Ice Charting Working Group (IICWG) was held in Punta Arenas, Chile, October 20-25, 2014. The meeting was hosted by the Meteorological Service of the Chilean Navy and the Center for Quaternary Studies, Fuego-Patagonia and Antarctica (CEQUA), in collaboration with the University of Magallanes and the Antarctic Institute of Chile. Sixty-eight attendees representing 33 organizations from 15 countries participated.

The theme of this year's meeting was "*Ice Information in the Southern Ocean: Status, Challenges, and the Future*". A full day was devoted to this theme including plenary sessions and breakout groups that discussed user needs for ice information in Antarctic waters, the current availability of information and how best to fill any gaps identified. Additional plenary sessions on Earth Observations, Emergency Response, and WMO Information also included specific presentations relevant to the Antarctic. A Science Workshop featured a session to mark the successful launch of Sentinel-1 and included assessments of the first images delivered to ice services. A final half-day was devoted to a business meeting of the Ice Service heads and invited guests to determine the action plan for the coming year.

The meeting Opening Ceremony featured an address by Chilean Navy Vice-Admiral Humberto Ramirez Navarro, Director-General of the Maritime Territory and Merchant Marine of Chile. The Navy and the CEQUA Foundation used the occasion of the meeting to sign a cooperation agreement to continue working together for the benefit of the scientific study of the Southern Ocean. Another important highlight was the announcement of the creation of a Chilean National Group for the Study of Ice in the Sea to bring institutions including the National Antarctic Institute of Chile, the University of Magallanes and the Magallanes Meteorological Center together with CEQUA and the Navy.

#### **Significant Outcomes**

##### ***Engagement of Southern Hemisphere Ice Information Services***

The primary objective of the meeting, to engage the Southern Hemisphere organizations that provide ice information for Antarctic waters, was achieved successfully. All of the five countries having Antarctic METAREA responsibilities (Australia, Argentina, Chile, New Zealand and South Africa) were represented and participated actively in the meeting. To enhance marine safety in ice-frequented southern waters, it was agreed that a first priority should be to produce a regularly updated circumpolar ice edge bulletin for broadcast on the Global Maritime Disaster and Safety Service (GMDSS). Further actions were adopted to foster collaboration among these organizations and with northern services providing ice information for the Antarctic.

##### ***Joint Antarctic Ice Chart Production***

Russia's Arctic and Antarctic Research Institute, the U.S. National Ice Center and the Norwegian Ice Service reported on a pilot project to integrate their production of ice charts for Antarctic waters to ensure the continued availability of weekly charts on a year-round basis augmented



with more frequent updates during the summer navigation season. The meeting participants congratulated the success of this initiative and look forward to the start of an operational program before the end of 2014.

### ***Ice in Electronic Navigation Charts***

For many years, the IICWG has worked actively with the JCOMM Expert Team on Sea Ice and the International Hydrographic Organization (IHO) to further the availability of ice information in Electronic Navigation Charts (ENCs). Under the leadership of Jürgen Holfort, the German Ice Service completed the development of the S-411 standard which was approved by the IHO as the standard for exchange and portrayal of ice information in ENCs. Further work to improve the portrayal of ice information at different map scales was initiated at the meeting.

### ***IMO Mandatory Polar Code***

The IICWG, led by David Jackson of the Canadian Ice Service, has followed the development of the Mandatory Polar Code at the International Maritime Organization (IMO) for several years. In particular, the IICWG is concerned with the Polar Code requirements for ice information and Ice Navigator training. At this meeting, participants learned of a new proposal for a method, called POLARIS, of determining if a ship should proceed in polar waters based on actual ice conditions and ship classification. The proposal to include POLARIS in the Polar Code is to be discussed at an IMO Maritime Safety Committee meeting in November 2014. The IICWG has been asked to comment on the merits of POLARIS by the proponents. Mr. Jackson will organize a response.

### **Other Outcomes**

A number of action items were adopted by both the IICWG plenary group and its two standing committees (Applied Science and Research; Data, Information and Customer Support). Of note:

- A request will be sent to the International Charter “Space and Major Disasters” asking for clarification on when and how the Charter can be invoked in sea ice emergencies;
- Initiatives were adopted for the active participation of the IICWG in the WMO Global Cryosphere Watch; and,
- The importance of IICWG participation in the Year Of Polar Prediction was noted.

### **IICWG News Release**

The IICWG issued a news release recalling the MV Explorer and MV Akademik Shokalskiy incidents and noting the hazards presented by rapidly changing ice conditions. The IICWG stated that “Accurate, timely analyses and forecasts of ice conditions are essential for safe and efficient navigation in polar waters. The members of the IICWG are committed to improving their collective capabilities by sharing their information and expertise in the interest of marine safety.”

### **IICWG-XVI**

It is planned to hold the next IICWG meeting in Germany during the week of October 19, 2015 at the invitation of the German Ice Service of the Bundesamt für Seeschifffahrt und Hydrographie.