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EXPERT TEAM ON SEA ICE – FOURTH SESSION

STEERING GROUP FOR THE PROJECT GLOBAL DIGITAL SEA ICE DATA BANK (GDSIDB) – TWELTH SESSION

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EUROPEAN ICE SERVICES REPORT

(Submitted by EIS)

Summary and Purpose of Document

This document describes a status report on the European Ice Services (EIS) the cooperative activities in operational ice service supporting maritime navigation in the Baltic Sea.

ACTION PROPOSED

The Expert Team on Sea Ice is invited to:

(a) Note and comment the information contained in the report;

(b) Take the report into account in discussion in particular under agenda item 2.4.2;

(c) Take actions on the issues raised in the report, as appropriate.

DISCUSSION

Introduction

1. The **European Ice Services** (**EIS**) was founded when Memorandum of Understanding was signed in October 2007 by DMI (Denmark), FIMR (Finland), and met.no (Norway). In May 2008 SMHI (Sweden) signed the MoU. Responsibilities of FIMR were transferred to FMI in 2009. The Area of Responsibility (AOR) for the EIS is all waters of Europe including Greenland, which contain sea ice, and which are of operational interest to users.

Scope

2. The concept of the EIS is to create a **harmonized suite of products and services** for ice information for the AOR to serve the needs of users for safety of navigation and informed decision-making. The virtually integrated service shall combine the strengths of the existing centres and result in seamless products of high quality and consistency –

thus avoiding as much as possible duplication of work and ice information products.

The European Ice Services will offer **a single point-of-entry** for operational ice information and will provide a suite of common European ice products. Each national ice service will be recognized as a contributing partner to the EIS, and products may be issued jointly without specific attribution to the centre of production. Ultimately, the product suite of the EIS may evolve into a set of constantly updated data bases of past, current and forecast ice conditions, from which users will retrieve decided and available information in up to date standard formats.

The **concept** recognizes and acknowledges each member's national responsibility, desire and ability to provide services to their own unique clients such as other government agencies, commercial clients, and research organizations.

The **objective** of this cooperation in the field of basic ice service is to work together as a network, to help

- providing an ice service with a higher quality and better cost efficiency than the former level,
- providing better ways to distribute products and services,
- providing uninterrupted services in the case if the mission of one of the member's service has critical failure,
- improving the capacity to participate and contribute in an international infrastructure development,
- providing common opportunities for the participating Parties to benefit from the cooperation.

Memorandum of Understanding

3. The **Memorandum of Understanding** for the implementation of cooperation between EIS is supposed to lead to:
    - Production of daily analysis of sea ice parameters at various spatial and time scales in order to improve operational ice monitoring and forecasting;
    - Introducing new services complementing traditional ice services both at a global and regional scale tailored to meet user requirements in their operations at sea and on land,
    - Implementing a reliable validation systems as an essential part of production to increase users trust in the products; and
    - Implementing user-friendly information and decision support systems.

    The proposed system will additionally:
    - Increase public awareness of the ice-infested seas of Europe and sea ice, and better understanding of key climate processes at high latitudes and their impact on climate change;
    - Be a strong and unified voice when needs and requirements for future satellite missions are discussed;
    - Secure a substantial European capacity in the field of charting and forecasting of sea ice as a counterpart to a similar North American capacity;
    - Increase the use of EO data by services where use is limited today in order to increase quality of products and services;
    - Make a substantial European contribution to international programs in the European Polar areas; and
    - Provide reliable access to high-resolution observation data sets for the climate change community.

Benefits to European citizens will be revealed through:

- Improved policy and decision making;
- Contributions to better management of environment, prevention and control of marine pollution and conservation of Arctic and Baltic ecosystems;
- Safer marine transportation and offshore operations in Polar and Baltic Sea regions including improved design criteria for vessels and marine constructions based on information from EIS; and
- Better understanding of climate change.

In separate **Terms of Reference** for the EIS, issues included are management, activities and projects, data and product exchange, terminology, data and mapping standards, operations and customer support, training, technology for analysis and forecasting, and applied science, research and development.

In the separate **Action Plan** for the EIS, issues to be included are identification of existing capacities, time frames, global component, structure, delivery systems, promotion and training.

EIS Board

4. EIS Board consists of one member from each participating country, and it has had four meeting:
    - December 13, 2007 at DMI, Copenhagen with Helge Tangen, met.no, Erik Buch, DMI, and Ari Seina, FIMR.
    - May 8, 2008 at met.no, Tromso with Helge Tangen, met.no, Erik Buch, DMI, and Ari Seina, FIMR.
    - February 19, 2009 at DMI, Copenhagen with Helge Tangen, met.no, Erik Buch and Keld Quistgaard, DMI, Anette Jonsson, SMHI, and Ari Seina, FMI.
    - October 13, 2009 at WMO, Geneve with Helge Tangen, met.no, Leif Tourdal Pedersen, DMI, Anette Jonsson, SMHI, and Ari Seina, FMI.
    - January 12-13, 2010 at SMHI, Norrkoping with Helge Tangen, met.no, Leif Tourdal Pedersen, DMI, Anette Jonsson, SMHI, and Ari Seina, FMI.

    EIS chair is elected for a two year period. The first Chair was Helge Tangen, met.no in 2007-2009, and the second Chair Ari Seina, FMI for 2009-2011.

EIS Workshops

5. EIS has organized two workshops where personnel of EIS member ice services have participated; the first one in met.no in Tromso, Norway in May 2008, and the second one in DMI, Copenhagen, Denmark in October 2009.

Other activities

6. Design and implementation is ongoing for an EIS web page. Expected launching is in 2010. Study is ongoing for finding out possibilities and design of the EIS Common Ice Production System.