

Third Ice Analysts Workshop  
14-18 June 2011  
Danish Meteorological Institute, Copenhagen, Denmark

ANNOUNCEMENT

**Background**

The provision of marine meteorological and oceanographic services, including sea ice, to meet the requirements of marine users continues to be a high priority for the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), since they contribute substantially to national economies, as well as being essential for the safety of life at sea, as recognized by the SOLAS Convention. Recognizing the increased use of the Polar Regions by all elements of the marine community including commercial, military and scientific research, gaps and problems with availability, harmonization and standardization of appropriate Maritime Safety Information (MSI) (including sea ice) within the new Arctic METAREAs XVII-XXI must be addressed.

To enhance the capability of Members to provide harmonized sea ice services and as a follow-up of the First and Second Ice Analysts Workshops (Rostock, Germany, June 2008, WMO Td. No. 1441, and Tromsø, Norway, June 2009, WMO Td. No. 1517), the JCOMM Expert Team on Sea Ice (ETSI) at its fourth session (St. Petersburg, Russian Federation, March 2010), and the International Ice Chart Working Group (IICWG) at its eleventh session (Washington DC, USA, October 2010), proposed to convene a Third Ice Analysts Workshop. The JCOMM Services and Forecast Systems Programme Area Coordination Group endorsed the Workshop at its fifth session (Melbourne, Australia, May 2010) and confirmed its inclusion in the JCOMM intersessional plan for 2010-2012. At the invitation of the Danish Meteorological Institute (DMI), the Third Ice Analysts Workshop (IAW-3) will take place in Copenhagen, Denmark, from 14 to 18 June 2011.

The IAW-3 will be aimed at improving interoperability between the national ice services and development of reconciled operational ice analysis products, the latter including a series of products and bulletins to ensure marine safety and efficiency of ice navigation in the newly operative Arctic METAREAs XVII-XXI, in the Baltic Sea and in Antarctic waters. The major outcome from this workshop will be the development of guidelines for the reconciliation of the sea-ice services, including coding and presentation schemes for ice charts and imagery.

**Objectives of the Workshop**

The primary objective of IAW-3 remains the assessment and minimization of differences between current practices of ice analysis and charting at the national ice services to meet operational needs. To help achieve this goal, the workshop encompasses:

1. Case studies, presentations and discussions from Ice Services on the techniques used in analyzing imagery and preparing ice charts in order to exchange views and techniques and learn diverse “philosophies” and practices of sea-ice analysis from different Ice Services; and,
2. Breakout groups of experts by region (Arctic West/East; Baltic Sea and Antarctic) to analyze imagery and prepare ice charts during the workshop in order to develop a methodology to harmonize the analysis process.

The presentation of case studies, breakout, and plenary sessions will be coordinated by the ETSI chairperson, the host ice service, chairpersons of the breakout groups (to be appointed) and the

WMO Secretariat. Deadline for submission of documentation, case studies, ice charts, and imagery is 31 May 2011. DMI will provide access to an ftp server for downloading and uploading all required information.

### **Logistics**

The Workshop will be conducted in English only. A JCOMM Technical Report will be produced, to include all case studies and documentation, as well as recommendations to harmonize sea ice analysis practices and products, including the exchange of ice charting products, coding and presentation schemes.

Updated information regarding the workshop, including case studies, ice charts and imagery, will be available from the JCOMM web site at <http://www.jcomm.info/> with a copy of material posted at <http://wdc.aari.ru/wmo/iaw3>. You are encouraged to visit the web sites regularly for further information concerning the workshop.

### **Organizing Committee**

**Dr Vasily Smolyanitsky**, Chairperson of the JCOMM Expert Team on Sea Ice (ETSI), Arctic and Antarctic Research Institute (AARI), Russian Federation

**Mr Keld Quistgaard** (local host representative), Ice Service, Danish Meteorological Institute, Copenhagen, Denmark

**Mr Nick Hughes**, Norwegian Meteorological Institute, Tromsø, Norway

**Dr Jürgen Holfort**, Bundesamt für Seeschifffahrt und Hydrographie (BSH), Germany

**Ms Darlene Langlois**, Canadian Ice Service, Environment Canada, Canada

**Mr John Falkingham**, (secretariat support), WMO

**WORLD METEOROLOGICAL ORGANIZATION**

**INTERGOVERNMENTAL OCEANOGRAPHIC  
COMMISSION (OF UNESCO)**

JOINT WMO/IOC TECHNICAL COMMISSION FOR  
OCEANOGRAPHY AND MARINE METEOROLOGY  
(JCOMM)

THIRD ICE ANALYSTS WORKSHOP

IAW-3 DOC 1.0

ITEM 1.0

COPENHAGEN, DENMARK  
14 TO 18 JUNE 2011

Original: ENGLISH

**PROVISIONAL AGENDA**

**1. Opening of the workshop**

- 1.1. Opening and welcome
- 1.2. Adoption of the agenda
- 1.3. Workshop logistics and arrangements

**2. Reports**

- 2.1. Key facts of national ice information systems for the last season 2010/2011" (template to be provided by Organizing Committee) (10-15 minutes each).
- 2.2. Reports/presentations from JCOMM, Secretariat, ice groups and data providers

**3. Case studies**

- 3.1. Workshop logistics
  - 3.1.1. Presentation of online resources to be used during case-studies
  - 3.1.2. Identification of a strategy for comparing practices and ice products
  - 3.1.3. Identification of 3-4 break-out groups:
    - West Arctic (Barents/Greenland Seas) / Antarctic / Baltic
- 3.2. Case study #1 (Day 1, Tuesday): "Online analysis of routine dataset and ice charting for a test region by 3-4 teams of ice analysts" (break-out)
- 3.3. Case study #2 (Day 2, Wednesday): "Assimilation of ice charts in SIGRID-3 format: interoperability of format implementation across the services, reconciliation of ice edge and adjacent polygons" (plenary)
- 3.4. Case study #3 (Day 3, Thursday): "Online composition of sea ice Marine Safety Information (MSI) for GMDSS and NAVTEX bulletins" (plenary)

**4. Plenary discussions**

- 4.1. Discussion #1 (Day 2, Wednesday): "Investigating philosophies for ice analysis and requirements from individual clients"
- 4.2. Discussion #2 (Day 3, Thursday): "Interoperability of ice charts: SIGRID-3 format implementation across the services, reconciliation of ice edge and adjacent polygons and possible implications on content of Arctic SafetyNET and NAVTEX bulletins"
- 4.3. Discussion #3 (Day 4, Friday): "Exchange of practices for satellite imagery relay: georeference and annotation standards, validity times, means for provision to customers, imagery display".

**5. Review of existing sea ice regulatory publications (day 5, Saturday)**

**6. Workshop proceedings**

- 6.1. Development of a summary of operational ice analysis differences and ice charts interoperability
- 6.2. Development of guidelines for harmonization of ice practices, delivery of the products and training in ice analysis including preparation of MSI
- 6.3. Workshop actions and report

**7. Close of the workshop**

## Third Ice Analysts Workshop

14-18 June 2011

Danish Meteorological Institute, Copenhagen, Denmark

### REGISTRATION FORM

Family name: \_\_\_\_\_

First name: \_\_\_\_\_

Position: \_\_\_\_\_

Institution: \_\_\_\_\_

Address: \_\_\_\_\_

Country: \_\_\_\_\_

Phone: \_\_\_\_\_

FAX: \_\_\_\_\_

E-mail: \_\_\_\_\_

Please indicate if you are submitting for discussion a case study on the techniques used in analysis imagery and preparing ice charts:

Yes: ☐ No: ☐

If yes, please provide detailed information on your submission (e.g., region covered, season, type of imagery, ice charts, etc.):

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Audiovisual and computer requirements: A laptop computer running MS Windows/PowerPoint, multimedia projector, overhead projector, and WiFi, will be available. If you have any other audiovisual and computer requirements, please note these below:

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Please submit this form by e-mail to Lisbeth Palle, DMI, +45 39 15 72 20, [lap@dm.dk](mailto:lap@dm.dk), as soon as possible, but **no later than 20 May 2011**.

## Information for Participants

### Meeting Venue

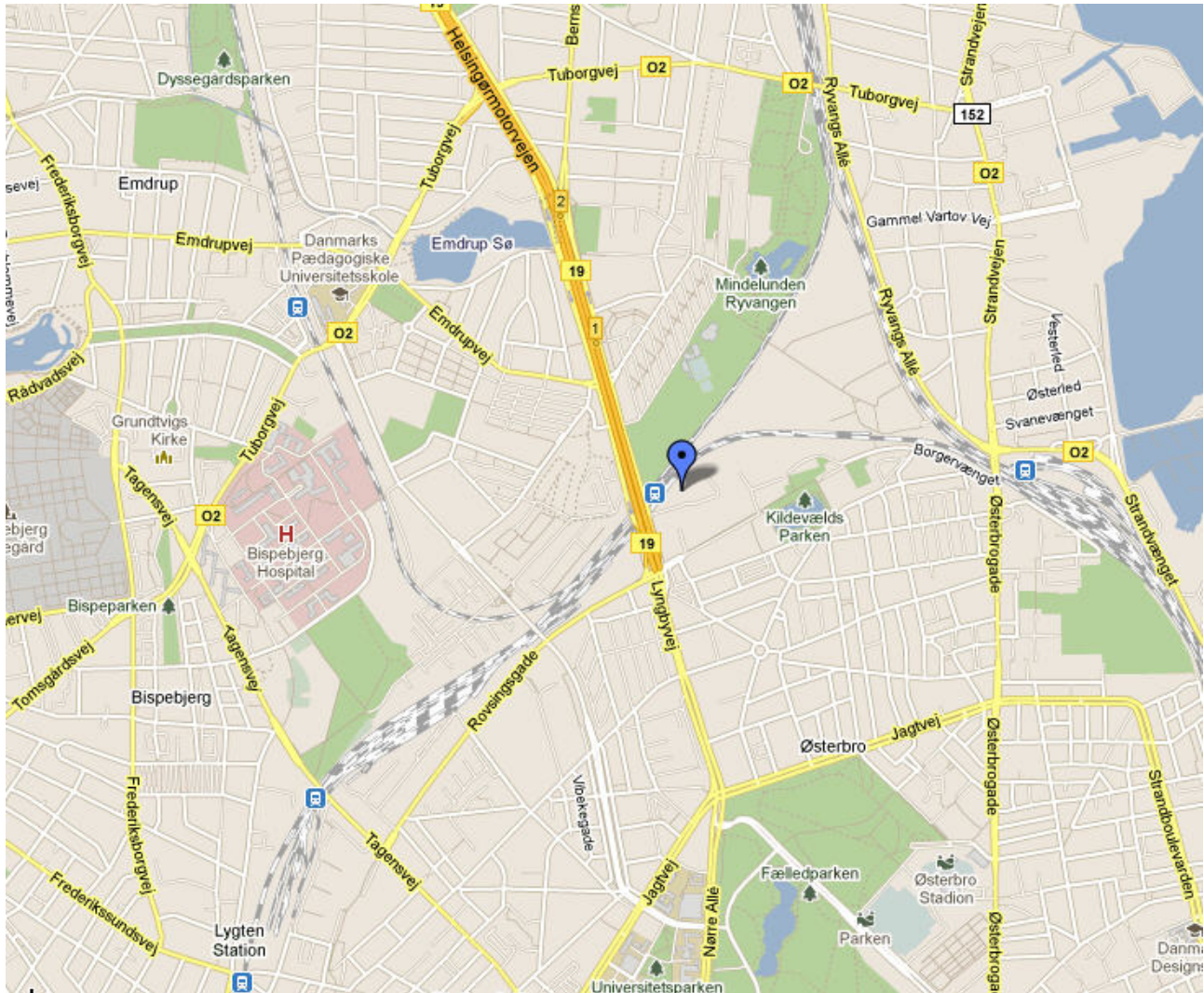
Danish Meteorological Institute

Lyngbyvej 100

2100 Copenhagen

Telephone 39 15 75 00

Fax 39 27 10 80



### Hotels

Single rooms have been pre-booked at 3 hotels. You need to book your room yourself, and you must inform of the booking number, which Lisbeth Palle, DMI, +45 39 15 72 20, [lap@dm.dk](mailto:lap@dm.dk), will give you, when you register for the Workshop with Lisbeth. Please beware of the dead-lines for booking under each hotel.

**Hotel Imperial** - Vester Farimagsgade 9, 1606 København V, phone +45 33 12 80 00. Price incl. breakfast DDK 1318,00. Hotel Imperial is a 4 star hotel situated close to the central part of Copenhagen and next to the S-railway station "Vesterport", where you can catch the S-train directly to "Ryparken". Travel time 15 minutes. Choose route "A" and the direction "Farum". Booking before May 30.

**Hotel Astoria** - Banegårdspladsen 4, 1570 København V, phone + 45 33 42 99 00. Price incl. breakfast DDK 895,00. Hotel Astoria is renovated in 2007. It is a 3 star hotel situated right in the central part of Copenhagen and next to the Central Train Station, where you can catch

## WDS\_MAP\_MMO\_IAW-3\_AnnexIV-Information for Participants

the S-train directly to "Ryparken". Travel time 19 minutes. Choose route "A" and the direction "Farum". Booking before May 13.

**Hotel Centrum** – Helgolandsgade 14, 1653 København V, phone + 45 33 31 31 11.

Price incl. breakfast DDK 895,00. It is a 3 star hotel situated right in the central part of Copenhagen with 5 minutes walk to the Central Train Station, where you can catch the S-train to "Ryparken".

Booking before May 13.