12th CHRIS MEETING
Valparaiso, Chile, 23-25 October 2000

Report on Activities of the
"Not Yet Formalized, but Somewhat Active"
IHO/IEC Harmonization Group on Marine Information Objects (HGMIO)

At the 11th Meeting of IHO CHRIS on 16-19 November 1999, it was agreed that the Chairman would contact IEC TC80 regarding the possible establishment of an IHO/IEC Harmonisation Group on Marine Information Objects (MIOs). On 8 September, a letter was sent to Dr. Andy Norris, Chairman, IEC TC80. With the letter a Draft Term of Reference was proposed. It was a slightly modified version of what was drafted during 11th CHRIS (IHO CHRIS Document 11/16C) and included specific references to sections contained in the IMO Performance Standards for ECDIS that would pertain to MIOs.

As agreed at the 11th Meeting, it was proposed that Dr. Lee Alexander (University of New Hampshire, USA) would be a suitable chairman for the Harmonisation Group. He was past Chairman of IEC TC80/WG7 and is currently Task Leader for Navigation Symbols in IEC TC80/MT1. Dr. Alexander is also an active participant in IHO CHRIS and WEND (Worldwide ENC Database) committee work. At the University of New Hampshire, MIOs will be an important aspect of his research program.

It is expected that HGMIO would work primarily by correspondence. When it may become necessary to hold a meeting, this would be announced by each organization. Participation at the meeting by IEC and IHO representatives would be under existing mechanisms/procedures that are already in place for each organization.

While a formal response to the IHB letter has not been received, some informal HGMIO-related activities have occurred during the past six months. These have included:

1. Display of AIS Symbols – IEC TC80/WG8A, 10-11 May 2000, San Diego, California, USA
During the meeting, Sub-Group 1 met to discuss the display of AIS target symbols. The meeting was attended by 13 persons and chaired by Capt. Benny Pettersson (Sweden). A draft of AIS target symbols prepared by FGAN (Germany) was submitted as a basis for discussion. It was noted that IHO is responsible for chart symbols and IEC for navigation symbols. The group further noted that the IEC TC80/MT1 (ECDIS maintenance group) are preparing a redraft of their symbol document (IEC 61174, Annex E) with the intention of submitting a committee draft for voting after March 2001.
During the discussion of AIS symbols, the following key documents were noted and should be considered when discussing AIS display issues:
- IMO AIS Operational Guidelines
- IMO AIS Performance Standard
- IEC 61993-2 (CD)- IEC AIS Test Standard

The Sub-Group spent some time discussing possible AIS symbols and agreed a list of Basic Guiding Principles that should be applied to AIS symbology. The group agreed that the issue of AIS symbology must be addressed through a co-coordinated effort involving IALA, IHO and IEC working in response to user requirements from IMO (e.g., IMO Operational Guidelines for AIS). It was also agreed that the Sub-Group should only consider AIS equipped vessels and non- AIS equipped vessels about which information is transmitted via AIS from shore, bearing in mind that IALA will be considering AtoN and VTS applications.

2. "Ice in ECDIS" Workshop - June 5th and 6th, 2000, St. John's, Newfoundland
The purpose of this two-day international workshop was to review and discuss the vision, methodology, benefits, and process in providing and integrating ice information into Electronic Chart Display and Information Systems (ECDIS). Two previous international workshops held in Canada (1995) and Germany (1996) explored the potential of integrating ice information into ECDIS and developed proposed extensions to IHO S-57 to cover ice information. The thirty-six participants of the workshop included ice information specialists, mariners, ECDIS and Electronic Chart System (ECS) manufacturers, ENC producers, and others

interested in advancing this technology and its use. The workshop included presentations and discussion covering:

Background & Vision - Ice in ECDIS
Navigating Through Ice –View from the Mariners
Delivering the Information - View from the Data Producers
ECDIS - View from Manufacturers:
Breakout Sessions:
1. Provision and Integration of Ice Data
2. Information Overload – Integrating Mio's
3. Ice and Related Data and the Marine Information Highway

One of the more useful outcomes of the Workshop was the development of an initial a "plan of action" for a Pilot Project. An Ice Information on ECDIS Pilot was planned to start in Fall 2000, and have a basic service implemented by 1 December 2000. Of particular concern is gaining the interest and support of the of the manufactures to deliver enhanced tools to support the use of ice information and of other key stakeholders to create the critical mass needed to make the vision of "Ice in ECDIS" a reality.

3. International Workshop for AIS/ECDIS/VTS Interface, 16-17 August 2000, Taejon, Korea

This workshop was organized by the Korean Research Institute of Ships and Ocean Engineering (KRISO) for the purpose of discussing the means and process necessary to interface AIS, ECDIS and VTS. In particular, the challenges and opportunities associated with the implementation were addressed from the perspectives of government, universities, and private companies.   Over 70 persons attended including representatives from Europe, Africa, North America and the Southeast/Northeast Asia region.

The workshop began with presentations on the activities and experiences of Singapore and the United States, followed by explanations of what was occurring in Korea. It became evident there were similar challenges to contend with, including:

- shore-based infrastructure
- communications
- capability and availability of AIS transponders
- display of AIS information on shipboard ECDIS and shore-based VTCs
- operational procedures and training
- carriage requirements

A significant factor hampering the implementation of AIS with ECDIS and VTS is fact the international standards development process has not been completed.

A technical session dealt with some key technologies required to implement AIS. This included as GPS/ DGPS, communications systems, and AIS transponder equipment. During another session, experiences and some recommended solutions were offered by private companies involved in ECDIS, AIS and VTS. Currently, most installations are incorporating AIS-related technologies based on national specifications. However, these companies intend to meet Universal AIS performance requirements when the ongoing standards development process has been completed.

An important outcome of the Workshop was agreement on the need for a Joint, International Pilot Project to share experience, validate standards, and provide feedback to relevant organizations dealing with ECDIS, AIS, and VTS.   In conjunction with the integration of AIS-ECDIS in conjunction with port operations in Singapore, South Korea, Germany, and the United States will cooperate in the conduct of joint-trials in Singapore starting in October 2000. It is expected that similar trials will be conducted by other countries or in other regions as well.

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Submitted by:
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