

13th CHRIS Meeting
17-19 September 2001, Athens Greece

Report on MIOs
by Lee Alexander, September 2001

United States (NOAA/UNH)

1. Establishment of IHO-IEC Harmonization Group on Marine Information Objects

On 28 March 2001, a letter was sent from the Chairman of IEC Technical Committee 80 to the Chairman of IHO CHRIS outlining the basis for the formation of a IHO-IEC Harmonization Group on Marine Information Objects (HGMIO). Draft Terms of Reference for HGMIO were exchanged in April 2001 and revised in June 2001 (see CHRIS 13/18B).

Under the Terms of Reference, the HGMIO should:

- a) *Harmonize the activities of IHO and IEC related to the provision and display of supplemental chart- and navigation- related information on ECDIS.*
- b) *Conduct technical exchange on MIOs with type-approval authorities, ECDIS manufacturers and ECDIS user community.*
- c) *Liase with other organizations or Working Groups involved in ECDIS-related matters. This may include:*

IMO/IHO Harmonization Group on ECDIS (HGE)
International Association of Lighthouse Authorities (IALA)
World Meteorological Organization (WMO)
North Atlantic Treat Organization (NATO)

- d) *When instructed by IHO CHRIS:*
 - 1) *draft new IHO S-57 objects to be added to Object Catalogue*
 - 2) *draft new editions of S-52 Appendix 2 (Colours and Symbols Specifications).*
- e) *When instructed by IEC TC80, recommended new navigation-related symbols to be incorporated into IEC 61174, Annex E.*

The HGMIO will be comprised of individuals who are participating members of standing IHO and IEC committees or working groups. Dr. Lee Alexander (University of New Hampshire – NOAA) has agreed to serve as Chairman.

As called for in the Terms of Reference, the following Guiding Principles apply:

- a) *The primary focus of developing specifications related to the use Marine Information Objects (MIOs) on ECDIS should be to supplement the minimum chart- and navigation-related information required for safety of navigation.*
- b) *The HGMIO should consider other ECDIS-related developments and performance standards that may involve the display of additional navigation-related information. This would include IMO Performance Standards for Automatic Identification Systems (AIS) and VTS-related information proposed by IALA.*
- c) *The HGMIO should monitor what is occurring related to ECDIS type-approval. This should include such matters as current exceptions granted and future regulations (e.g., carriage requirements).*
- d) *New standards for MIOs should not be finalized without first conducting comprehensive testing and evaluation, validation by ECDIS manufacturers, and at-sea trials with mariners.*

2. MIO-related Activities

a) An ECDIS Ice Objects Catalogue (Version 3.0, 20 March 2001) has been completed by the Canadian Ice Centre. The Catalogue is compatible with both IHO S-57 and ISO TC211. It is hoped that it will become the basis of an international standard for the exchange of this type of information.

b) At IMO NAV 47 in July 2001, Interim Guidelines for the Presentation and Display of AIS Target Information were agreed and issued as IMO SN/Circ.217. The interim guidelines deal with

graphical presentation and display of AIS target data in stand-alone (e.g., ECDIS) or Integrated Navigation Systems (INS). They will allow manufacturers to develop relevant equipment and functions in time to allow mariners to acquaint themselves with the use of an intelligent combination of information from the first date of AIS deployment. These interim guidelines will eventually be replaced by appropriate performance standards after experience has been gained.

c) In August 2001, liaison was established between HGMIO and the IALA VTS Committee and AIS Working Group regarding the display of VTS-related information on ECDIS. Following the upcoming IALA VTS Committee meeting in Paris in mid-September, coordination will occur on what VTS symbology/display matters warrant particular attention.

d) A new IEC TC80 - Working Group 13 has been proposed to develop a new IEC standard to address the basic elements common to all navigation equipment displays (e.g., symbols, colours, and other ergonomic displays). Formal establishment of TC80/WG13 is expected to occur at IEC TC80 Plenary Meeting in St. Johns, Newfoundland, Canada on 24-26 September 2001. It has been proposed that membership of WG13 include representation from HGMIO and C&SMWG.

3. Meeting of IHO-IEC HGMIO

The first meeting of the IHO-IEC HGMIO is planned for January-February 2002 at the University of New Hampshire (Center for Coastal and Ocean Mapping), Durham, NH (USA), or at the Office of Coast Survey – NOAA near Washington, DC. A meeting announcement will be made on the IHO website.

Much of the work of HGMIO will take place via the Open ECDIS Forum (OEF). Persons interested in participating or being kept informed of the activities of HGMIO, can contact Dr. Lee Alexander at: lee.alexander@unh.edu.