

IHB File S3/8151/CHRIS

**CIRCULAR LETTER 49/2001**  
**18 October 2001**

**13<sup>th</sup> CHRIS MEETING**  
**Athens, Greece, 17-19 September 2001**

Dear Sir,

Member States' attention is drawn to the following actions arising from the 13<sup>th</sup> CHRIS Meeting, which was held in Athens on 17-19 September 2001.

SENC Delivery Option

In accordance with the decisions of the 12<sup>th</sup> CHRIS Meeting and the 6<sup>th</sup> WEND Meeting, the 13<sup>th</sup> CHRIS Meeting approved the proposed new wording of S-52, paragraph 3.3 and a Technical Resolution to ensure that any SENC Delivery was treated as an additional option to the distribution of ENC's in S-57 format. The IHB is addressing the matter to the Member States for a decision in another Circular Letter.

ENC Security Scheme

The CHRIS Meeting supported the concept of a single and optional IHO ENC data protection mechanism based on the Primar Security Scheme. It was agreed that a small, expert advisory group, led by Primar, would develop an IHO ENC data protection kernel modelled on the Primar Security Scheme and investigate the implications for the IHO/IHB, in particular if, as it was suggested, the IHB becomes the Security Scheme Administrator and assumes responsibility for the maintenance of the above kernel. The advisory group is to report back to CHRIS (via the IHB) before the end of 2001.

IHO Colours and Symbols Maintenance Working Group

Ensuring that official hydrographic data is properly, safely and consistently presented to the mariner in an ECDIS is a fundamental IHO responsibility. The C&SMWG is responsible for standardizing the display content and symbology of ENC's in an ECDIS. This is a vital service in the provision of ENC's, which would not be possible without the work of this WG.

The Presentation Library (PL) is the core element of the work of the C&SMWG and the Canadian Hydrographic Service and the United Kingdom Hydrographic Office have funded this work to date. The PL requires constant maintenance and this can only be undertaken with the services of suitable experts in this field and with adequate funding.

As a result of the sale of the PL, the IHB has realised approximately US\$75 000 (54 copies of the CD-Rom PL have been sold to date). This PL fund has been used to finance PL maintenance activities over the past 3-4 years and the current amount available is US\$27 000. While it may be possible for the IHO to significantly reduce its workload on PL maintenance, this cannot be achieved in a short period of time and the PL must still be maintained. It has been estimated that there is a requirement for approximately US\$60 000 per annum for the next two years and the IHB will investigate possible sources of funding to meet this requirement.

Dr Mathias Jonas (Germany) has recently been elected Chairman of the C&SMWG and Member States are urged to support the work of the Group by providing suitable experts to serve on the C&SMWG.

#### Standardization of Nautical Publications Working Group

The Chairman of the SNPWG advised the CHRIS Meeting that, in his view, the SNPWG had discharged the majority of its mandate with the exception of the requirement to address the issue of digital datasets fully compatible with ECDIS that are not digital nautical publications based upon existing paper publications. He suggested that international standardization was not an appropriate requirement for paper and digital nautical publications, as stand-alone documents. This was endorsed by the CHRIS Meeting. The standardization of digital datasets, fully compatible with ECDIS, had not been undertaken and required an amendment to the Terms of Reference of the SNPWG (Annex A).

It is necessary, therefore, that Member States nominate suitable experts who are prepared to serve on the SNPWG, by **30 November 2001** (Annex B). It is essential that nominees be available and prepared to participate in the activities of the WG and to attend the meetings of the SNPWG, if necessary. Member States, nominating members for the WG, are requested to indicate whether their nominee would be prepared to serve as Chairman, Vice-Chairman or Secretary.

#### IHO/IEC Harmonization Group on MIO

The Terms of Reference of the IHO/IEC HGMIO were approved by the 13<sup>th</sup> CHRIS Meeting (Annex C). The IEC and the 13<sup>th</sup> CHRIS Meeting have also approved the appointment of Dr. Lee Alexander (University of New Hampshire) as Chairman of the HGMIO. Member States are requested to nominate suitable persons to serve on this Group by **30 November 2001** (Annex D).

#### Amendments to Chapter V of the SOLAS Convention.

The amendments to Chapter V of the IMO SOLAS Convention, which comes into force in July 2002, mean that an ECDIS fuelled by an ENC will, from that date, meet the carriage requirements of vessels for paper charts. Member States' attention is drawn to the fact that administrative steps may have to be taken by National Maritime Authorities to ensure that ECDIS is accepted as meeting the carriage requirement from that date.

#### Updating IHO Technical Standards

Due to the complications arising from the updating of the IHO Transfer Standard S-57, from Ed. 3.0 to Ed. 3.1, the 13<sup>th</sup> CHRIS Meeting developed Guidelines for Updating IHO Technical Standards (Annex E). Copies of these Guidelines will be sent to the Chairmen of Committees and Working Groups, outside the responsibility of CHRIS, for their information and possible use. The Meeting hoped that these procedures could be accepted as the IHO standard for the updating of all IHO Standards. The IHB will prepare a Circular Letter on the subject.

### Inland Waterways

The CHRIS Meeting was advised of the progress made in the use of ECDIS on inland waterways both in North America and Europe. It is highly likely that this will also occur in other parts of the world where there are extensive inland waterways. The CHRIS Meeting was of the opinion that Member States should be made aware of these developments and, while these activities do not fall within the scope of IHO responsibilities, the interaction and compatibility between maritime and riverine ECDIS are essential.

### Electronic Chart Systems

The CHRIS Meeting was advised of the progress made by ISO TC8/SC6/WG7 and RTCM in the preparation of draft ECS Data and Equipment Standards. As the SOLAS Convention covers all shipping, even if the responsibility for certain vessels is delegated to National Maritime Authorities, and in spite of the fact that the IHO has decided that ECS is not an IHO responsibility, the CHRIS Meeting felt that it was in the interest of all concerned that these developments be monitored, and supported if necessary, by Member States.

### Open ECDIS Forum

Member States' attention is also drawn to the Open ECDIS Forum ([www.openecdis.org](http://www.openecdis.org)). This Forum is jointly organized by the IHB and some industry representatives to promote the discussion of subjects related to ECDIS. Some IHO Working Groups utilize this Forum in a classified manner to discuss the work of the Group. While access may be restricted, open sessions are encouraged to obtain the widest range of views as possible.

Subjects for discussion should be submitted to the OEF Coordinator at ([openecdis@openecdis.org](mailto:openecdis@openecdis.org)) for approval by the OEF Board of Patrons. The discussions are then monitored by the Coordinator to ensure their relevance and suitability. Member States are urged to support this initiative, which has been in operation for the last four years.

On behalf of the Directing Committee  
Yours sincerely,

Rear Admiral Neil GUY  
Director

- Encls: - Annex A – Revised Terms of Reference for SNPWG  
- Annex B – Nominations for the SNPWG  
- Annex C – Terms of Reference for the HGMIO  
- Annex D – Nominations for the HGMIO  
- Annex E – Proposal for Principles and a set of Procedures for making changes to IHO Standards

**REVISED TERMS OF REFERENCE  
for the  
Standardization of Nautical Publications Working Group (SNPWG)**

*(as approved by the 13<sup>th</sup> CHRIS Meeting, Athens, Greece, September 2001)*

**1. Objective**

To develop guidelines for the preparation of nautical publications, primarily in a digital format compatible with ECDIS and secondly in paper and digital formats, as stand-alone publications.

**2. Definition**

*A Nautical Publication is a special-purpose book, or a specially compiled database, that is issued officially by or on the authority of a Government, authorized Hydrographic Office or other relevant government institution and is designed to meet the requirements of marine navigation. Nautical publications include but are not limited to:*

- *Distance Tables*
- *List of Buoys and Beacons*
- *List of Lights*
- *List of Radio Signals*
- *List of Symbols, Abbreviations and Terms used on Charts*
- *Mariners' Handbooks*
- *Notices to Mariners*
- *Routeing Guides*
- *Sailing Directions*
- *Tidal Stream Atlases*
- *Tide Tables*

*Nautical publications can be made available in a paper or a digital format.*

**3. Authority**

This Working Group (WG) is a subsidiary of the Committee on Hydrographic Requirements for Information Systems (CHRIS) and its membership and decisions are subject to CHRIS approval.

**4. Execution**

a) The WG should:

- (i) Investigate the data format specifications, content and display requirements of digital nautical publications intended for use in ECDIS.
- (ii) Draft guidance document(s) and/or revised technical resolutions, as appropriate.
- (iii) Liaise with relevant IHO Technical WG's to ensure, technical feasibility and compatibility of any developed proposals.

- b) The WG should liaise with other CHRIS WG's and other IHO and international bodies as appropriate and as instructed by CHRIS.

## **5. Chairmanship and Procedures**

- a) The WG shall comprise representatives of IHO Member States (MS) and Expert Contributors.
  - b) The WG should work primarily by correspondence. The WG should attempt to meet at least once every two years, normally in connection with another convenient IHO forum.
  - c) Decisions should generally be made by consensus. If votes are required on issues or to endorse proposals presented to the G, only MS may cast a vote. Votes shall be on the basis of one vote per MS represented.
  - d) Expert Contributors membership is open to entities and organizations that can provide a relevant and constructive contribution to the work of the WG.
  - e) The WG shall be chaired by a representative of a MS. The Chairman and the Vice-Chairman shall be chosen by the MS represented in the WG, for a period of three years.
  - f) Expert Contributors shall seek approval of membership from the Chairman.
  - g) Expert Contributor membership may be withdrawn in the event that a majority of the MS represented on the WG agree that an Expert Contributor's continued participation is irrelevant or unconstructive to the work of the WG.
  - h) All members shall inform the Chairman in advance of their intention to attend meetings of the WG.
  - i) In the event that a large number of Expert Contributor members seek to attend a meeting, the Chairman may restrict attendance by inviting Expert Contributors to act through one or more collective representatives.
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**NOMINATIONS  
for the  
Standardization of Nautical Publications Working Group (SNPWG)**

QUESTIONNAIRE  
*(to be returned to the IHB by 30 November 2001)*

.1 Taking into consideration the revised Terms of Reference for SNPWG, as in Annex A to IHB CL 49/2001, do you wish to participate in the work of SNPWG?

YES  NO

.2 If yes, please indicate the name of your nominee:

.....

.3 If yes, would your representative be prepared to act as:

- Chairman of SNPWG : Yes  No

- Vice-Chairman of SNPWG : Yes  No

- Secretary of SNPWG : Yes  No

Comments : .....

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4. In case you wish to suggest one or several expert contributors to the work of SNPWG [re: para 5(d) of the TOR], please indicate their name(s):

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**TERMS OF REFERENCE  
For the  
IHO-IEC Harmonization Group on Marine Information Objects (HGMIO)**

*(as approved by the 13<sup>th</sup> CHRIS Meeting, Athens, Greece, September 2001)*

**1. Objective**

To establish a Harmonization Group between the International Electrotechnical Commission (IEC) and International Hydrographic Organisation (IHO) to deal with Marine Information Objects (MIO). MIOs include both chart-related and navigation related information to be used with an Electronic Chart Display and Information Systems (ECDIS) that conforms to the International Maritime Organisation (IMO) Performance Standards for ECDIS.

**2. Authority**

The IMO Performance Standards for ECDIS specify for:

a) Chart-related information:

- (i) the Electronic Navigational Chart (ENC) contains “all the chart information necessary for safe navigation, and may contain supplementary information in addition to that contained in the paper chart (e.g., sailing directions) which may be considered necessary for safe navigation” (Section 2.2).
- (ii) The chart information to be used in ECDIS conforms to IHO S-57 standards (Section 4.1).
- (iii) IHO recommended colours and symbols (S-52) should be used to represent System ENC information (Section 8.1).

b) Navigation-related information:

- (i) Radar information or other navigational information may be added to the ECDIS display. However, it should not degrade the SENC information, and should be clearly distinguishable from the SENC information (Section 6.1).
- (ii) The colours and symbols other than those mentioned in 8.1 should be used to describe the navigational elements and parameters listed in Appendix 3 and published by IEC Publication 61174 (Section 8.2)

c) This technical liaison Working Group is a subsidiary of two Committees:

- (i) IHO Committee on Hydrographic Requirements for Information Systems (CHRIS).
- (ii) IEC Technical Committee No. 80 - Maritime Navigation and Radiocommunications Equipment and Systems (TC80)

**3. Procedures**

The HGMIO should:

- a) Harmonize the activities of IHO and IEC related to the provision and display of supplementary chart- and navigation- related information on ECDIS.
- b) Conduct technical exchange on MIOs with type-approval authorities, ECDIS manufacturers and ECDIS user community.

- c) Liaise with other organizations or Working Groups involved in ECDIS-related matters. This may include:
  - IMO-IHO Harmonization Group on ECDIS (HGE)
  - IHO CHRIS:
    - Transfer Standard Maintenance and Applications Development Working Group (TSMAD)
    - Colours and Symbols Maintenance WG (C&SMWG)
  - IEC TC80:
    - Working Group 7 (ECDIS)
    - Working Group 13 (Display)
  - International Association of Lighthouse Authorities (IALA)
  - World Meteorological Organization (WMO)
  - North Atlantic Treaty Organization (NATO)
- d) When instructed by IHO CHRIS, draft new editions of S-52 Appendix 2.
- e) When instructed by IEC TC80, recommended new navigation-related symbols to be incorporated into IEC 61174, Annex E.

#### **4. Composition and chairmanship**

- a) The HGMIO should be comprised of individuals who are participating members of standing IHO and IEC committees or working groups.
- b) The HGMIO should be chaired by an individual who is an active participant in both IHO CHRIS and IEC TC80.

#### **5. Guiding Principles**

- a) The primary focus of developing specifications related to the use of 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.
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**NOMINATIONS  
For the  
IHO-IEC Harmonisation Group on Marine Information Objects (HGMIO)**

QUESTIONNAIRE  
(to be returned to the IHB **by 30 November 2001**)

.1 Taking into consideration the revised Terms of Reference for HGMIO, as in Annex C to IHB CL 49/2001, do you wish to participate in the work of HGMIO?

YES  NO

.2 If yes, please indicate the name of your nominee:

.....

.3 If yes, would your representative be prepared to act as:

- Vice-Chairman of HGMIO : Yes  No   
- Secretary of HGMIO : Yes  No

Comments : .....  
.....  
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**PROPOSAL FOR PRINCIPLES AND A SET OF PROCEDURES  
FOR MAKING CHANGES TO IHO STANDARDS**

*(as approved by the 13<sup>th</sup> CHRIS Meeting, Athens, Greece, September 2001)*

**Principles**

Improvements to standards and systems only come about by change, however, changes can cause incompatibility between systems, high updating costs and dissatisfied users. These principles have been drafted to try and avoid this.

- A. Any proposed changes to existing standards need to be technically and commercially assessed before approval.
- B. Assessment should involve all parties including IHO, manufacturers, distributors and users.
- C. Changes to standards should not affect the existing user base where possible and therefore should be "backwards compatible", or the existing version must be supported for a specified time.
- D. If changes are required on the basis of safety of navigation rather than product enhancement, then the previously approved system must be allowed to continue being used at sea for a defined period, to allow due time for the changes to be implemented on board.
- E. On a case by case basis the lead in time for the change should be defined, unless already defined by a change at IMO.
- F. In exceptional cases, it may be necessary to apply changes retrospectively to all equipment at sea as soon as possible.
- G. All interested parties should be encouraged to "continuously improve" IHO standards. All rejected proposals should therefore have a proper explanation.

**Procedures**

These procedures are recommended to ensure that any proposed changes are properly assessed and implemented. The procedures should be simple to encourage their use.

- 1. All parties may submit a "change proposal" to IHB for logging and processing.
- 2. The "change proposal" must contain a justification for the change, a recommended action list and a proposed time frame for implementation.
- 3. The IHB forwards the "change proposal" to the relevant IHO committee for evaluation and decision on the next stage.
- 4. The relevant committee will then either reject or accept the proposal. If rejected it should be returned to the originator with the reasons.
- 5. If accepted, the committee will involve all the relevant bodies in assessing the proposal and planning any subsequent work.

6. The bodies should include representation from manufacturers, distributors and users via their relevant points of contact such as CIRM, IALA and ICS.
7. Based on this evaluation it should be decided by the committee whether the proposal should be recommended for approval or held for a later date (if the change is minor and could be introduced with other changes) or rejected.
8. If approved and after any subsequent work is complete, a "change note" should be drafted showing a summary of the finally agreed changes, documents affected, a recommended action list and the timetable for implementation.

**Note:** The recommended action list defines the appropriate action for the change and should be developed as a standard list from which the action is chosen. These could be:

- a) retrospectively to all ECDIS at sea,
- b) to all ECDIS at sea at the next service,
- c) to all ECDIS delivered from this date
- d) to all ECDIS delivered from a date in the future,
- e) to all ENC/SENC delivered after a date in the future... .. and so on.

**Further work:** This process should be flow-charted and Standard forms drafted for the "change proposal" and "change note" showing the decisions at each stage.

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