

21st TSMAD MEETING
29 November – 03 December 2010, Victoria,
BC, Canada

Paper for Consideration by TSMAD

Report to TSMAD21 on CSPCWG Activities

Submitted by:	Australia
Executive Summary:	Report on CSPCWG Activities Since TSMAD20
Related Documents:	IHO S-4
Related Projects:	S-57 Maintenance; S-100; S-101 Development

Introduction / Background

The IHO Chart Standardisation and Paper Chart Working Group (CSPCWG) is a Working Group of the IHO HSSC. Its primary objectives are to:

- Revise, develop and maintain IHO Publication S-4 – Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO;
- Revise, develop and maintain Part A of IHO Publication S-11 – Guidelines for INT Chart Coordinators;
- Maintain INT1, INT2 and INT3 (with national Hydrographic Offices' assistance);
- Develop new paper chart symbology.

Since TSMAD20, and prior to preparation of this report, there have been no CSPCWG meetings held. The annual meeting of CSPCWG (CSPCWG7) will be held in Cape Town, South Africa, from 23-26 November 2010 immediately preceding TSMAD21. The ongoing review of IHO Publication S-4 has continued through correspondence, and the INT1 Sub-Working Group has continued to address consistency issues between the three official language versions of INT1 by correspondence. The full record of CSPCWG can be found on the CSPCWG page of the IHO web-site, and a verbal report of any issues from CSPCWG7 that are of interest to TSMAD will be provided at TSMAD21. CSPCWG Letters relating to activities being progressed via correspondence can also be found on the CSPCWG page of the IHO web-site.

Analysis / Discussion

New documents published since TSMAD20:

- S-4 – Regulations of the IHO for International (INT) Charts and Chart Specifications of the IHO – Edition 4.0.0 (September 2010): Changes from Edition 3.007 include:
 - New abbreviations added to the table of International Abbreviations at B-122 for Degaussing (DG), Fish Aggregating Device (FAD) and Marine Rescue and Coordination Centre (MRCC);
 - Revised specifications at B-381.5 and B-381.6 for depiction of bridge supports and depiction of depth detail under bridges;
 - Revised specification at B-418.1 to include additional new symbol for unsurveyed area;
 - Revised specification at B-443.8 for cable tunnel entrances;
 - Revised specification at B-444.5, including addition of new symbol, for pipeline tunnel entrances;
 - New specification at B-445.2(f) for disused or abandoned production platforms;
 - Revised specification at B-445.12, including addition of new symbol, for the depiction of established wave energy devices and wave farms;
 - Revised specification at B-447.4 to include a new symbol for the depiction of shellfish beds that do not contain physical obstructions;
 - New Section B-600 on Chart Maintenance.

Regarding the impact of these changes on ENC, the following comments are submitted for TSMAD consideration:

- New International Abbreviations: Degaussing (range) and Fish Aggregating Device have been in S-4 for a number of years and have no additional impact on ENC encoding. Marine Rescue and Coordination Centre is a new term in S-4. It is mentioned in B-492.3 in relation to coastguard stations. TSMAD will need to determine whether a method of encoding MRCC is required to be identified, and possibly promulgated by ENC Encoding Bulletin.
- Depiction of bridge supports and depiction of depth detail under bridges: No action required. The capability to depict such information under bridges for ENC already exists.
- Unsurveyed areas: No impact.
- Cable and pipeline tunnel entrances: The intent of the new symbology is to identify that a cable or pipeline has entered a tunnel where the path of the tunnel is not known (and therefore cannot be charted), so as to avoid any possible confusion for the mariner. There is currently no corresponding method for encoding and depicting such tunnel entrances in ENC. TSMAD should therefore consider encoding options, and possibly an ENC Encoding Bulletin, on this issue. Note that the S-57 Object Class TUNNEL can be point primitive, and this may provide a possible solution, although TUNNEL of type point does not currently symbolise in the ECDIS (ENC Encoding Bulletin No. 29 refers).
- Disused or abandoned production platforms: No action required, noting that CONDTN is a valid attribute for the Object Class OFSPLF.
- Wave energy devices and wave farms: There is currently no guidance on how to encode such features in ENC. Possible encoding options includes OBSTRN for individual energy devices (point) and OBSTRN or OSPARE for wave farms (area). TSMAD should discuss this, and other possible encoding options, with the intension of publishing an ENC Encoding Bulletin.
- Shellfish beds: No impact.
- New maintenance Section B-600: No action required. Issues regarding the impact of this new Section of S-4 on ENC are being considered by the IHO ENC Updating Working Group (EUWG), and any TSMAD actions arising from B-600 will be raised via this Working Group.

CSPCWG Activities Progressed by Correspondence since TSMAD20:

- Foul Area and Foul Ground: Discussions have progressed significantly since TSMAD20, with two CSPCWG Letters related to this subject addressed, and a third, and hopefully final, Letter currently being reviewed by CSPCWG. It has been determined by CSPCWG that, although the terms foul area and foul ground are defined in S-32 and used in S-4, which is causing some problems in interpretation for compilers, there is no such confusion for the mariner as INT1, which is the reference for mariners to interpret symbols, abbreviations and terms used on charts, does not use the term “foul area”. CSPCWG have decided not to include the term “foul area” in INT1 against any symbol. Current discussions on this issue relate to improving the guidance for depicting foul ground, particularly foul ground of known depth.
- AIS as Aid to Navigation: New draft Specifications for the depiction of virtual AIS as an aid to navigation have been approved by CSPCWG and the draft submitted to IHO Member States for approval to be adopted in S-4 (IHO CL 67/2010 refers, responses by 21 January 2011). The recommended symbols for adoption are as reported at TSMAD20, except the central diamond and dot is replaced by the small magenta position circle. This is to allow for other methods (other than AIS) for establishment of virtual aids to navigation to be depicted using the same symbology (the diamond symbol is recognised as relating specifically to AIS).
- Small craft leisure symbols: As reported at TSMAD20, it has been determined that INT1 Section U (Small Craft (Leisure) Facilities) is no longer required in INT1, as chart users now have numerous other sources (e.g. internet) from which to obtain this information. Recommendations of CSPCWG have been submitted to IHO member States for approval (IHO CL 39/2010) with responses due by 20 September 2010, and these recommendations (with minor amendments) have been adopted for the next

Edition of S-4 (IHO CL 71/2010 refers). As a result of these decisions, TSMAD will need to evaluate the S-57 Object Class SMCFAC and its defining attribute CATSCF for the validity of most of the current enumerate values for S-101 (Feature Catalogue). It is suggested that all current enumerate values for CATSCF at least be retained in the IHO Hydrographic Register. INT1 and S-4 references to small craft facilities will also need to be amended in the IHO Hydro Register and the S-101 Data Classification and Encoding Guide.

Next meeting: As stated above, the next meeting of CSPCWG (post this Report) will be held in during the week immediately preceding TSMAD21.

Recommendations

1. That TSMAD/DIPWG continue to generally monitor the activities of CSPCWG, particularly the ongoing revision of S-4, with regards to impacts on the IHO Hydrographic Register, S-100/S-101 and ECDIS display, and liaise with CSPCWG as required.
2. That TSMAD monitor the conclusion of CSPCWG discussions related to foul area and foul ground, for possible changes to the IHO Hydro Register and S-101.
3. TSMAD to monitor progress of development of new Editions of S-4 and INT1 for impact on cross references within the IHO Hydro Register and S-101.

Justification and Impacts

CSPCWG activities impact on the content of the S-100 Hydrographic Register; the rules and guidelines for ENCs compiled in both S-57 and S-101; and developments in portrayal of navigation information in ECDIS.

Items of particular note from this report that impact on TSMAD activities include:

- Ongoing activities to resolve confusion over the terms foul area/foul ground.
- Adoption of new international abbreviation for Marine Rescue and Coordination Centre.
- Approval of new specification for depiction of pipeline and cable tunnel entrances.
- New specification for wave energy devices and wave farms.
- Approval to remove INT1 – Section U and relocate only a few symbols from this Section to other Sections of INT1.

Action required of TSMAD

TSMAD is invited to:

- a. Endorse this report;
- b. Discuss and address the following issues raised in this Report:
 - i. Is it required to develop a method for encoding Marine Rescue and Coordination Centres in S-57 ENCs? Is there a requirement to propose a new enumerate value for MRCC to the S-100 Hydro Register (e.g. for CATRSC)?
 - ii. How should cable and pipeline tunnel entrances be encoded for S-57 ENCs? Should the superseded S-57 Object Class Tunnel Entrance (TNLENT) be revived for the S-101 Hydro Register? Should DIPWG be asked re-evaluate their decision for TUNNEL of type point not to display in ECDIS?
 - iii. How should wave energy devices and wave farms be encoded in S-57 ENCs? Should proposals be developed for the S-100 Hydro Register to handle the encoding of these features in S-101 ENCs?
 - iv. How does the CSPCWG decision to remove INT1 – Section U, retaining only a few symbols relocated to other Sections of INT1, effect the feature SMCFAC in S-101? This will mainly concern evaluation of the allowable list of enumerate values for the attribute CATSCF.