

9th CSPWG MEETING
Seoul, Republic of Korea, 13-16 November, 2012

Paper for Consideration by CSPCWG
Report from HSSC4 – Notes by CSPCWG Chairman

Submitted by:	Chairman
Executive Summary:	A brief report on IHO meeting HSSC4, September 2012, for matters of interest to CSPCWG
Related Documents:	CSPCWG9-04.1A CSPCWG Report to HSSC4 HSSC4 Report (draft in preparation by IHB)
Related Projects:	CSPCWG Work Plan

Introduction / Background.

1. These notes provide a brief summary report of the 4th meeting of the Hydrographic Standards and Services Committee (HSSC4), hosted by UK Taunton, 25-28 September 2012. It is for information only and limited to those issues that are most closely related to CSPCWG's activities; it is not intended to summarise all matters, nor to replace the official meeting Record and Actions List that is distributed to Member States (MS) by IHO Circular Letter.
2. Technical WG chairmen presented their respective WG reports to HSSC in person, attending as part of their national delegations. At HSSC4, only TWLWG Chairman (by telephone) and HDWG Chairman (by proxy) did not report directly.
3. Chairman CSPCWG presented the WG's report (CSPCWG9-04.1A).
4. HSSC4 was attended by 23 IHO MS including some national hydrographers. Further participants came from industry and international affiliated bodies, particularly for the "IHO Stakeholders' Forum" on the middle days.

Analysis / Discussion.

5. Edited summary outcomes and decisions (from IHB's draft) are at Annex. CSPCWG's work is reported under agenda item 5.5 (highlighted).
 - 5.1 Progress of the Work Plan was reported (reviewed in detail at CSPCWG8, December 2011, updated to September 2012). Its revision and updating will be discussed at agenda item 13.
 - 5.2 Regarding Work Plan item B3:
CSPCWG to develop guidelines for preparation & maintenance of small / medium scale ENC schemes.
In seeking to progress this item, Chairman has engaged with NSEHWG and WEND WG to facilitate substantive progress. Chairman will also approach regional Coordinators.
 - 5.3 Terms of Reference of CSPCWG are slightly modified (agenda item 5 refers).

6. Chairman/ Secretary provided input into HSSC's summary report to IHConference XVIII (April 2012) of CSPCWG's activity in the period 2007-2012. Also, the principal tasks of CSPCWG planned for the period 2012-2017.
7. Correspondence Group on Definition and Length of Coastline: Annex item 3 refers.
8. HSSC Performance Indicators: Annex item 4.1 refers. WGs will report:
 - % of annual work programme achieved to monitor progress against objectives;
 - Total number of participants at meetings (MS and Expert Contributors) to indicate participation of MS and wider community.
9. IHO Technical Capacity: Annex item 4.2 refers. No action is recorded to say how this will be progressed before HSSC5.
10. In respect of other technical WGs:
 - DIPWG, TSMAD, DQWG and HDWG will be reported under agenda items 4.2-4.5.
 - HSSC agreed that the New Object (NEWOBJ) feature defined in S-57 should be used to encode Virtual AIS Aids to Navigation in ENC's...and further instructed TSMAD to develop an Encoding Bulletin.
 - TSMAD and DIPWG Chairs will produce, by the end of January 2013, a "master plan" document for the development of S-100 and S-101, in accordance with the life cycle diagram included in resolution 2/2007, incorporating sequencing with DQWG and DPSWG, and scheming the implications for stakeholders.
 - SNPWG will prepare a master plan for developing electronic nautical publications, with priority assigned to defining data models and product contents. Also, an estimate of the number of potential product specifications related with nautical publications.
 - DQWG's proposal for reflecting the impact of extreme events through CATZOC was agreed (but not their proposal for areas of mobile seafloor).
 - HDWG's work plan will include a review of the approved definitions of Altitude, Elevation and Height, following HSSC4-05.9B. (Agenda items 4.5.2 refers.)
 - DPSWG and HDWG are both lacking participants; volunteers welcomed.
11. A Stakeholder Forum generated a list following the question: *'Is there something that the IHO should be doing that it is not?'* This list is attached (two items are highlighted).
12. HSSC agreed to add an item on e-navigation in the agenda for HSSC5 and invited contributions on the implication of e-navigation for individual HOs and for the IHO.
13. Elections: Chairman Dr. Mathias Jonas (DE); Mr. Mike Prince (AU) Vice Chairman.
14. HSSC5 is planned for 4 to 8 November 2013 in Monaco (unless an alternative venue is proposed by a Member State before 1st February 2013). This timing of early November persists for 2014, despite the decision of HSSC3 to move forward to free more of the year for WGs to schedule their meetings. (Note for agenda item 15.)

Justification and Impacts.

15. CSPCWG Chairman to continue representing the WG at HSSC:
 - by providing a report of the WG's activities;
 - seeking endorsement of our Work Plan, including new items and relative priorities;
 - raising issues of wider interest for the Committee's attention, as required.

Action required of CSPCWG.

CSPCWG is invited to note this report (and to refer to the full HSSC4 final report).

ANNEX

4TH MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE
Taunton, United Kingdom, 25-28 September 2012**(EDITED) DRAFT OUTCOMES AND ACTIONS****3. Matters arising from Minutes of 3rd HSSC Meeting**

HSSC4-03C [Status Report of the Correspondence Group on Definition and Length of Coastline](#)(France)

HSSC4-03D [Comments on the Report to HSSC-4 by the Correspondence Group on Definition and Length of Coastline](#) (UK)

Outcome:

- The Committee tasked the Correspondence Group to complete its work, by publishing a paper in the International Hydrographic Review describing the calculation of the length of coastline, based on ENCs.
- The Committee did not support the draft IHO Resolution initially proposed by the Correspondence Group.
- The Committee decided to disband the Correspondence Group on Definition and Length of Coastline, after publication of its work in the International Hydrographic Review.
- **Action HSSC4/01: Correspondence Group on Definition and Length of Coastline** to submit a paper describing the calculation of the length of coastline, based on ENCs, to the International Hydrographic Review editor.

4. HSSC Administration

4.1 Implementation of Programme Performance Indicators

HSSC4-04.1A [Programme Performance Indicators for HSSC](#)(IHB)

Outcome:

- The Committee decided to implement the Performance Indicators (PIs) agreed by HSSC2 with the following adjustments:
 1. Indicator no 1 will be the number of S-100 based product specifications approved.
 2. The data collection point for indicator no 5 is transferred to the WEND WG.
- **Action HSSC4/02:** Contributions for the 2012 period to be provided by **HSSC WG Chairs** (Performance Indicators no 2 and 3) and **WEND WG Chair** (Performance Indicator no 5) by 31 January 2013.
- **Action HSSC4/04: HSSC5** to revisit the usefulness of the Performance Indicators (PIs) adopted by HSSC4.

4.2 Increasing technical capacity at the IHB

HSSC4-04.2A [Assessing the adequacy of the IHO Technical Capacity](#)(IHB)

Outcome:

- The Committee identified the following critical elements from the WG reports and acknowledged the associated potential mitigation measures:

- Portrayal component of S-100
 - Cover travel costs of a proper sequencing of meetings to complete the S-100 portrayal model.
- Expert advice to non IHO stakeholders developing S-100 based product specifications
 - MS / WG based and/or IHB based.
- HDWG membership
 - Impact study for HSSC5 (IHB)

5. Reports by HSSC Working Groups

5.1 Transfer Standard Maintenance and Application Development (TSMAD)

HSSC4-05.1A [Report and Recommendations of TSMAD](#) (TSMAD Chair)

Outcome:

- The Committee endorsed the continued activity of TSMAD, and approved its work plan with an additional work item to produce a roadmap (mind map), taking into account the S-101 impact study and showing key tasks that have to be completed in order to implement S-100, and indicating interaction between the tasks and the implications for stakeholders.

- The Committee endorsed the draft edition 3.1.0 of S-57 Appendix B1 Annex A *Use of the Object Catalogue for ENC(UOC)* and invited the IHB to circulate the document to Member States for approval.

- **Action HSSC4/06: TSMAD Chair** to include in the TSMAD work plan an additional work item to produce a roadmap (mind map), taking into account the S-101 impact study and showing key tasks that have to be completed in order to implement S-100, and indicating interaction between the tasks and the implications for stakeholders.

- **Action HSSC4/07: IHB** to circulate the draft edition 3.1.0 of S-57 Appendix B1 Annex A *Use of the Object Catalogue for ENC (UOC)* to Member States for approval.

HSSC4-05.1C [Development of an S-100 Based Product Specification for Ocean Forecasts](#) (USA (NOAA))

Outcome:

- The Committee acknowledged the work being done by the US National Weather Service on behalf of the Expert Team on Maritime Safety Services (ETMSS) of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), and approved the provision under TSMAD Work Item A.10 of expert advice on the creation of an S-100 based Product Specification for Ocean Forecasts.

- **Action HSSC4/09: IHB** to approach the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) to elaborate a joint strategy to develop S-100 based multi-disciplinary products in the context of the implementation of the e-navigation strategy.

HSSC4-05.1E [Proposal to add a Magnetic Variation information Product Specification to the TSMAD work program](#) (TSMAD)

HSSC4-05.1K [Magnetic Variation Product Specification - Comments on HSSC4-05.1E](#) (USA (NOAA))

Outcome:

- The Committee did not endorse the proposal to add a work item on the development of an S-10X product specification for Magnetic Variation information to the TSMAD work plan.

- **Action HSSC4/11: IHB** to invite Member States to implement Encoding Bulletin 44 dealing with

magnetic variations.

HSSC4-05.1F [New Work Item Proposal for the establishment of a Surface Current Product Specification \(S-10y\)](#) – to be used as a stand alone product or fully integrated within other S-100 based products (Canada)

Outcome:

- The Committee established a working group for developing a surface current product specification, with terms of reference [to develop standards for the delivery and presentation of navigationally relevant currents information].
- **Action HSSC4/12: IHB** to invite Member States to consider participating in the working group on surface current product specifications and inform Canada not later than end of 2012.

HSSC4-05.1H [AIS aids to navigation and ENC](#) (TSMAD Chair)

Outcome:

- The Committee agreed that the New Object (NEWOBJ) feature defined in S-57 should be used to encode Virtual AIS Aids to Navigation in ENCs. The Committee further instructed TSMAD to develop an Encoding Bulletin that describes how to encode Virtual AIS Aids to Navigation in ENCs.
- **Action HSSC4/15: TSMAD** to develop an Encoding Bulletin that describes how to encode Virtual AIS Aids to Navigation using the New Object (NEWOBJ) feature.

5.3 Digital Information Portrayal (DIPWG)

HSSC4-05.3A [Report and Recommendations of DIPWG](#) (DIPWG Chair)

Outcome:

- The Committee the continued activity of DIPWG and approved its work plan, including the change to title for work item A.5.
- **Action HSSC4/18: DIPWG Chair** to amend the title of work item A.5 in the DIPWG work plan, to read: “Develop new Presentation Library Version 3.5 and coordinate with TSMAD for appropriate changes to S-64”.
- **Action HSSC4/19: DIPWG Chair** to send a note to OEMs to clarify the objectives of a side meeting on portrayal modeling issues, to be held in conjunction with the ECDIS anomalies workshop (London, UK, 15-16 October 2012).
- **Action HSSC4/20: UK** (Mr.Jonathan PRITCHARD) to provide the DIPWG Chair with all the feedback and information gained from ECDIS anomalies analysis, concerning portrayal and Presentation Library issues. If there is an issue that needs immediate action, **DIPWG**to issue a portrayal bulletin.
- **Action HSSC4/21: DIPWG Chair** to liaise with the IHB to agree how best to expedite the work of DIPWG (especially the S-100 portrayal model work) by facilitating the attendance of key persons to focus group meetings.

HSSC4-05.3B [Proposal for an Expenditure from the IHO Presentation Library Fund for Contract Support to Correct Hydrographic Portrayal Register Data](#) (DIPWG Chair)

Outcome:

- The Committee noted the paper (HSSC4-05.3B).
- The Committee endorsed the use of the Presentation Library fund and/or other available resources to support the following tasks:
 - a. correction of errors in the hydrographic portrayal register;
 - b. updating the digital presentation files; and
 - c. creation of a S-100 portrayal catalogue builder.

- **Action HSSC4/22: DIPWG** to draft a statement of requirement for each of the following tasks and submit them to the IHB for tendering.

- a. correction of errors in the hydrographic portrayal register;
- b. updating the digital presentation files; and
- c. creation of a S-100 portrayal catalogue builder.

- **Action HSSC4/23:IHB** to prepare and award a contract for the following tasks, in using the PL fund and/or other available resources:

- a. correction of errors in the Hydrographic portrayal register;
- b. updating the digital presentation files;
- c. creation of a S-100 portrayal catalogue builder.

HSSC4-05.11 [*Comments on the TSMAD and DIPWG Working Group reports*](#)(Finland)

Outcome:

- **Action HSSC4/24: TSMAD and DIPWG Chairs** to produce, by the end of January 2013, a “master plan” document for the development of S-100 and S-101, in accordance with the life cycle diagram included in resolution 2/2007, incorporating sequencing with DQWG and DPSWG, and scheming the implications for stakeholders.

5.4 Standardization of Nautical Publications (SNPWG)

HSSC4-05.4A [*Report and Recommendations of SNPWG*](#) (SNPWG Chair)

Outcome:

- The Committee endorsed the continued activity of SNPWG and approved its work plan.
- The Committee confirmed the objective to provide nautical publications in electronic format.
- The Committee decided not to assign a product specification number to the draft product specification for Marine Protected Areas (MPA), for the time being.
- **Action HSSC4/25: SNPWG** to prepare a master plan for developing electronic nautical publications, with priority assigned to defining data models and product contents.
- **Action HSSC4/26: SNPWG** to provide an estimate of the number of potential product specifications related with nautical publications.

5.5 Chart Specifications and Paper Charts (CSPCWG)

HSSC4-05.5A [*Report and Recommendations of CSPCWG*](#) (CSPCWG Chair)

Outcome:

- The Committee noted the report (HSSC4-05.5A), endorsed the continued activity of CSPCWG and approved its work plan.
- The Committee approved the revision in the terms of reference, as proposed by CSPCWG Chair.
- The Committee confirmed the development of guidelines for the preparation and maintenance of ENC schemes as a CSPCWG work item, and welcomed the assistance of the WEND Working Group.
- **Action HSSC4/27: IHB** to amend Clause 2 of the CSPCWG terms of reference, to read (changes underlined): “This WG is a subsidiary of the Hydrographic Services and Standards Committee (HSSC). Its work is subject to HSSC approval. In respect of the current cycle of revision of S-4 and in the interests of procedural efficiency, the WG has authority to reach decisions on the maintenance and updating of this document [for which it is responsible] and to seek direct endorsement of its proposals by IHO Member States via the IHB. This does not include matters that may have a strategic

or financial implication for Member States or other interested stakeholders.”

HSSC4-05.6B [Clarifications for “Use of Object Catalogue” \(S-57 App. B.1, Annex A\), section 2.2.3](#) (DQWG Chair)

Outcome:

- The Committee did not endorse the proposal in section 6 of HSSC4-05.6B to artificially degrade to 4 (Zone of Confidence C) the CATZOC value for mobile seafloors.
- The Committee endorsed the proposal in section 8 of HSSC4-05.6B to artificially degrade to 5 (Zone of Confidence D) the CATZOC value for areas affected by extreme events.
- **Action HSSC4/28: TSMAD** to apply to S-57 Appendix B.1 Annex A (Use of the Object Catalogue for ENC), the changes identified in section 8 of HSSC4-05.6B and dealing with reflecting the impact of extreme events through CATZOC.

5.9 Hydrographic Dictionary (HDWG)

HSSC4-05.9A [Report and Recommendations of HDWG](#) (IHB)

HSSC4-05.9B [S-32: Definitions of Altitude, Elevation and Height](#) (CSPCWG Chair)

Outcome:

- The Committee noted the report (HSSC4-05.9A), endorsed the continued activity of HDWG and approved its work plan.
- **Action HSSC4/33: IHB** to invite Member States to provide experts to HDWG and report, in liaison with HDWG, to HSSC5 on the options for continuing the maintenance of the Hydrographic Dictionary (S-32).
- **Action HSSC4/34: HDWG** to review the approved definitions of Altitude, Elevation and Height, in light of HSSC4-05.9B.

8. Liaison with External Stakeholders

8.1 IHO Stakeholders Forum – Outcomes and matters arising

Outcome:

- The Committee acknowledged the input from the poll on “What the IHO should be doing and is not”, as summarised in Annex G, for further consideration by the IHO.

9. Review and Endorsement of HSSC Work Plan and List of Actions

HSSC4-09A [Draft HSSC Work Plan](#) (IHB)

Outcome:

- The Committee noted the draft HSSC work plan (HSSC4-09A), to be revised by the IHB in liaison with the working group chairs, for distribution with the meeting minutes.
- The Committee agreed to add an item on e-navigation in the agenda for HSSC5 and invited contributions on the implication of e-navigation for individual HOs and for the IHO.
- **Action HSSC4/36: IHB**, in liaison with the working group chairs, to revise the draft HSSC work plan (HSSC4-09A) for distribution with the meeting minutes.
- **Action HSSC4/37: IHB**, in liaison with HSSC chair, to develop an outline of the regulatory process associated with the implementation of S-100 based products and services.
- **Action HSSC4/38: Secretary** to add an item on e-navigation in the draft agenda of HSSC5.

Is there something that the IHO should be doing that it is not?

Responses from the HSSC meeting 2012.

ECDIS and ENC related issues

- Legacy systems – take a lead in updating.
- Provide mariners the means to test ECDIS.
- Issue a revised version of S-64 to enable better type approval of ECDIS testing.
- Consistency between test procedures and the type approval process – i.e. if fails one then should fail the other.
- Rigorous testing of ENCs before they get status “official”.
- Coordinate consistency, quality and availability of ENCs from all nations not just MS.
- Ensure data access is improved and encourage/mandate through IMO lobbying the full dissemination of existing ENCs.
- Visual display of navigational warnings in ECDIS.
- Encourage MS to implement 1m contours in 5-30 depth areas.
- Fund a gap analysis of required top level system safety requirements for ECDIS against existing implementation of ECDIS; to address both technical and organizational issues.
- Implications of ECDIS gap analysis for e-navigation.
- Work with stakeholders to establish a portal or website for all partner ECDIS information.
- Provide an open source ECDIS with generic user interface to provide backup on non ECDIS approved devices.
- Ensure smooth transition to S-101 world.
- Expedite S101 finalization/testing (including portrayal issues) before May 2013 so that standards are considered at the next HSSC meeting in 2013.
- Provided detailed information on how and when S-100 and S-101 will be ready for service.
- Investigate how non hydrographic data will be integrated into e-navigation and ECDIS.
- Own and manage RENC functions.

General Issues

- Pay more attention to end users and what they need, what they want and less on economic interests.
- Let mariners drive the requirements / listen to and update the end user.
- Establish expert review process to test standards prior to publication.
- More proactive approach to implement standards and specifications.
- Technical ability not so reliant on MS – take the lead rather than be lead.
- Try and further influence IMO and industry stakeholders.
- Speed up – technology and private sector are moving fast and IHO needs to keep up to ensure they are a 21st century organization.

- Take the lead in encouraging MS to make their data (hydrographic and other) more widely available for the benefit of the scientific community.
- Advise MS on how regional directives will affect their work e.g. INSPIRE.
- Ensure or even enforce that all MS step into the 21st digital century (i.e. distribution of SENC worldwide).
- Decent risk assessment that includes accepting that variation will occur and that if mariners can misinterpret something, a significant minority will (don't just fall back upon "*well the mariner needs to be trained better*"); keep it simple for operators!!
- Redesign ourselves at an organisational and procedural level to address the complexity in the era of e-navigation and Spatial Data Infrastructure (enterprise re-engineering).
- Initiate the prototyping of a future Maritime Information and Intelligence Exchange, based on the lessons, processes and methods of the aviation domain, and implementing open standards.
- Concentrate on ensuring that the seas are adequately surveyed as a priority.
- Concentrate on your main reason for establishment – hydrography.
- Work closer with the GIS community.

Miscellaneous

- Permit raster charts.
- Check INT charts to ensure they conform to specifications.
- Host and maintain a state of the art telephone and video conferring system that any MS can access and use free of charge.