$\mathbf{5}^{\mathrm{TH}}$ MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE (HSSC5)

Outcomes and actions

("Rough" version)

1. OPENING AND ADMINISTRATIVE ARRANGEMENTS

The Committee noted the documents introduced.

Action: IHB to insert posting date of documents on the download page of the IHO web site, for future HSSC meetings.

2. APPROVAL OF AGENDA AND TIMETABLE

- The Committee agreed the agenda.
- -The Committee decided that item 5.10 (CSWG report) would be taken on Thursday morning at 9.45 via teleconference and that item 6.1 (ABLOS report) would be taken on Wednesday afternoon before or after the coffee break.

3. MATTERS ARISING FROM MINUTES OF 4th HSSC MEETING

The Committee agreed that the pending three actions would be dealt with as follows:

- Action HSSC4/10 would be discussed under item 7.9
- Action HSSC4/14 would be discussed under item 5.1
- Action HSSC4/33 would be discussed under item 5.8

The Committee noted the report on the status of T&P ENC updates.

The Committee agreed that the current status of promulgation of T&P ENC updates leaves further room for improvement and invited MS who do not plan to align their ENC and paper chart T&P update regimes to reconsider their position and report on any need for assistance to the IHB;

The Committee noted the comments for improving the Guidelines for encoding T&P ENC Updates in the next edition of the UOC (Clause 2.6.2 of S-57 Appendix B.1 Annex A).

Action: IHB to invite MS who do not plan to align their ENC and paper chart T&P update regimes to reconsider their position and report to the IHB on any need for assistance.

Action: TSMAD to take into consideration the comments reported in paper HSSC5-INF2 (Appendix to Annex A), for inclusion in the next edition of the Use of the Object Catalogue (S-57, Appendix B.1, Annex A).

Action: IHB to inform IRCC of the concern that differences between paper charts updates and ENC updates, as well as inconsistencies between ENCs from different producers, reflect badly on the IHO and to request IRCC to encourage the resolution of these issues by Regional Hydrographic Commissions via the WEND-WG.

4. HSSC ADMINISTRATION

4.1 Implementation of Programme Performance Indicators

The Committee noted the report on the implementation of performance indicators.

The Committee requested WG chairs to ensure that the level of detail in their respective work plans is homogeneous and that they clearly identify the work items which are expected to be completed in the subsequent year.

Furthermore the committee are to invite the WEND WG - via IRCC to assess the representativeness of the ENC usage indicator, which is based only on the inputs from Primar and IC-ENC, and to propose alternatives if appropriate.

Action: WG chairs to ensure that the level of detail in their respective work plans is homogeneous and that the work plans identify clearly the work items which are expected to be completed in the subsequent one or two years.

Action: IHB to invite WEND WG via IRCC to assess how representative is the ENC usage indicator based solely on the inputs from Primar and IC-ENC, and to propose alternatives if appropriate.

Action: Contributions for the 2013 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 2014.

4.2 Review of the Structure of HSSC Working Groups

The Committee approved in principle the new structure of WGs and project teams proposed by the chair group.

The Committee approved the establishment of a correspondence group (CG) composed of the Chairs of HSSC, TSMAD, DIPWG, CSPCWG, SNPWG, TWLWG, SCWG and an IHB representative to develop draft terms of reference and rules of procedure, and consider the composition of the new bodies as well as the appropriate timely transition arrangements.

The Committee agreed that the CG be open to representatives of Member States.

The Committee requested Member States and stakeholders to define their contribution in terms of resources to the new bodies.

Action: HSSC Chair and Secretary to establish a correspondence group composed of the Chairs of HSSC, TSMAD, DIPWG, CSPCWG, SNPWG, TWLWG, SCWG and an IHB representative, to develop draft terms of reference and rules of procedure for the proposed new HSSC bodies, and consider their composition as well as the appropriate timely transition arrangements.

Action: HSSC Chair to invite MS to participate in the HSSC Correspondence Group on HSSC WG restructuring.

Action: IHB to request Member States and stakeholders to define their contribution in terms of resources to the proposed new HSSC bodies.

Related actions

Action: IHB to amend the terms of reference of TSMAD, DIPWG, SNPWG, MSDIWG and SCWG as agreed by the Committee.

Action: US to propose possible solutions for remote meeting facilities at the IHB and at other meeting venues.

4.3 Maintenance of S-57 and S-52

The Committee noted the report and endorsed the procedures described in Annexes 1 and 2 of the paper as amended by the drafting group.

The Committee adopted the amendments to the current ToR of TSMAD and DIWPG as proposed by the drafting group.

Action: *see* § *4.2.*

5. REPORTS BY HSSC WORKING GROUPS

5.1 Transfer Standard Maintenance and Application Development (TSMAD)

The Committee noted the report of TSMAD Chair, endorsed the continued activity of TSMAD, and approved its work plan subject to its adjustment to the HSSC consolidated work program.

The Committee approved the draft edition 4.0.0 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.

The Committee endorsed the draft S-57 Supplement No 3 and invited the IHB to circulate the document to Member States for approval.

The Committee endorsed the draft edition 5.0.0 of S-58 *Recommended ENC Validation Checks* including the minor amendments proposed by the drafting group – subject also to the TSMAD 27 review - and invited the IHB to circulate the document to Member States for approval with an implementation date.

The Committee agreed that the draft edition 3.0.0 of S-64 *IHO Test Data Sets for ECDIS* be finalized at TSMAD 27, then circulated to HSSC contacts for endorsement and subsequently to Member States for approval.

The Committee agreed the need to advertise the above draft editions to the large community of OEMs.

Action: TSMAD to finalize the draft edition 3.0.0 of S-64 at TSMAD-27 (December 2013).

Action: TSMAD Chair to provide IHB with a clean copy of the draft edition 3.0.0 of S-64 for posting on the IHO website as a familiarization version.

Action: IHB to seek HSSC approval of the draft edition 3.0.0 of S-64 by correspondence through HSSC Circular Letter before end of October 2014 (in line with the publication of the new edition of IEC 61174).

Action: IHB to seek Member States approval of the draft edition 3.0.0 of S-64 by IHO Circular Letter.

Action: IHB to seek Member States approval of the draft edition 4.0.0 of the Use of the Object Catalogue (UOC - S-57, Appendix B.1, Annex A) by IHO Circular Letter.

Action: IHB to seek Member States approval of S-57 Supplement no 3 by IHO Circular Letter.

Action: TSMAD to finalize the draft edition 5.0.0 of S-58 at TSMAD27, in accordance with the guidance provided at HSSC-5.

Action: IHB to seek, by IHO Circular Letter, Member States approval of the draft edition 5.0.0 of S-58, together with a deadline for its implementation.

Action: TSMAD, in liaison with DIPWG, to provide the IHB with a statement of requirements for developing a feature catalogue builder.

Action: IHB to prepare and award a contract for the development of a feature catalogue builder, subject to the availability of appropriate resources.

5.1B S-101 Value Added Roadmap

The Committee noted the report and endorsed the draft S-101 Roadmap subject to a revision of the timelines. The document is to be placed on the IHO web site as a living (updated) document.

The Committee agreed to review the S-101 roadmap document periodically.

Action: TSMAD Chair to incorporate in the draft S-101 Value Added Roadmap the comments expressed during HSSC-5.

Action: IHB to post the amended S-101 Value Added Roadmap on the IHO web site.

Action: TSMAD chair to include an additional item in the TSMAD work plan to review the S-101 Value Added Roadmap annually.

5.1C Master Plan for the development and implementation of S-100

The Committee noted the report and endorsed the structure of the Master Plan.

The Committee invited further comments and additions to the Master Plan.

Action: IHB to post the S-100 Master Plan on the IHO web site.

Action: IHB to invite additional input from Member States and other IHO Stakeholders, to further develop the S-100 Master Plan.

Action: TSMAD chair to include an additional item in the TSMAD work plan to review the S-100 Master Plan annually.

5.1D Regulatory process associated with the implementation of S-100 based products and services

The Committee noted the report and endorsed the recommendation to advise IMO to consider the revision of the relevant Performance Standards and other instruments, if required, as a component of the draft e-navigation strategy implementation plan to be finalized in 2014 for consideration by NCSR 1.

The Committee noted that although the introduction of S-100 based nautical publications should not require new IMO instruments or any amendment to existing instruments, these requirements should nevertheless be considered and addressed as a component of the draft e-navigation strategy implementation plan.

Action: IHB to advise the IMO Correspondence Group on e-Navigation to consider the revision of the relevant performance standards and other instruments, if required, as a component of the draft enavigation strategy implementation plan to be finalized in 2014 for consideration by NCSR-1.

5.1E Proposal to formalize the identifiers for S-100 based product specifications

The Committee noted the report and approved the revised identifier proposal presented by the chair group (see Annex xx).

Action: TSMAD to prepare a detailed registry based procedure for the allocation of product specification identifiers.

Action: IHB to inform partner organizations on the allocation of product specification identifiers, as in Annex xx.

5.1F Report of the S-101 Impact Study – FR views on the way ahead

The Committee noted the report and agreed that the conclusions should be integrated into the S-101 value added roadmap.

Action: TSMAD chair to consider the impact of the recommendations contained in HSSC5-05.1F (S-101 impact study) on the S-101 Value Added Roadmap.

Action: IHB to consider the impact of the recommendation contained in HSSC5-05.1F (S-101 impact study) on the S-100 Master Plan.

5.1G Test Bed Projects in Support of S-101 Development and Implementation

The Committee noted the report and endorsed the need for conducting test bed projects as a crucial step in the development and implementation of S-100 and S-101 standards.

The Committee supported the KHOA test bed projects and the inclusion of the S-101 test bed program as part of the TSMAD Work Plan.

The Committee invited TSMAD to ensure that a single consolidated converter is made available at the end of the test bed process.

Action: TSMAD to include the KHOA S-101 test bed program as part of the TSMAD S-101 test plan strategy.

5.1H Comments by Finland on the status of S-57, scope of S-58 and the authority between S-57 and S-58

The Committee noted the report.

Action: IHB to include a note in the list of standards that are applicable to ECDIS on the IHO web site, drawing attention to the applicability of S-57 supplement documents.

5.11 S-100 Maritime Boundary Exchange Product Specification

The Committee noted the report and endorsed the Maritime Boundary Exchange Product Specification as an IHO Product Specification based on S-100.

The Committee agreed to Geoscience Australia being responsible for the maintenance of the Product Specification.

Action: Australia to request Geoscience Australia to change the product specification name from "Maritime Boundary Exchange Product Specification" to "Maritime Limits and Boundaries Product Specification" (IHO S-121).

5.1J S-100 Product Specification for Navigational Warnings

The Committee noted the paper and supported the proposal to develop an S-100 Product Specification for Navigational Warnings and noted that WWNWS-SC should liaise with TSMAD and later with the new S-100 WG.

The Committee noted that the US were considering the development of a Product Specification for sub surface navigation and invited interested parties wanting to collaborate on this to contact the US.

Action: WWNWS-SC is invited to liaise with TSMAD to develop an S-100 Product Specification for Navigational Warnings (IHO S-124).

Action: Parties interested in the development of a Product Specification for sub surface navigation are invited to contact the US.

5.2 Data Protection Scheme Working Group (DPSWG)

The Committee noted the report, endorsed the continued activity of the WG and approves the Work Plan at Annex B of the report.

Action: IHB, in liaison with the DPSWG chair, to consider the need for informing mariners about the transition to S-63 Ed 1.1 and take action as appropriate.

5.3 Digital Information Portrayal Working Group (DIPWG)

The Committee noted the reports and approved the DIPWG work plan subject to its adjustment to the HSSC consolidated work program.

The Committee commended the work undertaken on the US chart 1.

The Committee acknowledged the dedicated work of the members of DIPWG, especially those industry partners who worked on developing the S-100 Portrayal Model and a new edition of the *IHO Presentation Library* (S-52 Annex A).

The Committee approved a familiarization copy of the draft edition 6.1.0 of S-52 Specifications for Chart Content and Display Aspects of ECDIS and of the draft edition 4.0.0 of the IHO Presentation

Library (S-52 Annex A) to be placed on the IHO web site and then circulated for approval by HSSC letter followed by Members States approval by circular letter.

Action: DIPWG Chair to provide the IHB with clean copies of the draft editions 6.1.0 of S-52 and 4.0.0 of the Presentation Library (Annex A to S-52), for posting on the IHO website as a familiarization version.

Action: IHB to seek HSSC approval of the draft editions 6.1.0 of S-52 and 4.0.0 of the Presentation Library (Annex A to S-52), by correspondence through HSSC Circular Letter.

Action: IHB to seek Member States approval of the draft editions 6.1.0 of S-52 and 4.0.0 of the Presentation Library (Annex A to S-52), by IHO Circular Letter before end of October 2014 (in line with the publication of the new edition of IEC 61174).

5.4 Standardization of Nautical Publications WG (SNPWG)

The Committee noted the report and endorsed the continued activity of the Working Group and approved the Work Plan at Annex B to the report subject to its adjustment to the HSSC consolidated work program.

The Committee approved the proposed amendments to the terms of reference.

Action: *see* § *4.2.*

5.5 Chart Standardization and Paper Chart Working Group (CSPCWG)

The Committee noted the report and endorsed the continued activity of the WG and approved the Work Plan.

Action: Australia to provide feedback to HSSC-6 on their experience with producing paper charts from ENCs.

5.6 Data Quality Working Group (DQWG)

The Committee noted the report and endorsed the continued activity of the WG and approved the Work Plan with additional guidance.

Action: DQWG Chair to include in the DQWG work plan the recommendations contained in HSSC5-INF4 (interface with IMO/HTW).

Action: DQWG Chair to include a new work item in the DQWG work plan to expand data quality into dynamic tides / water levels.

Action: DQWG Chair to include a new work item in the DQWG work plan on using the Malacca and Singapore Straits Marine Electronic Highways (MEH) project, as a test case.

5.7 Marine Spatial Data Infrastructure Working Group (MSDIWG)

The Committee noted the report and approved the revised ToR (as amended at the meeting), and the revised Work Plan (as amended at the meeting).

The Committee noted the report on UN-GGIM and endorsed its recommendations.

Action: *see* § *4.2.*

Action: MSDIWG to consider the impact of the UN-GGIM initiative on its work plan, taking into account the items identified in paragraph 11 of HSSC5-05.7B, and report to HSSC-6.

5.8 Tidal and Water Level Working Group (TWLWG)

The Committee noted the report and approved the continuation of the TWLWG work under its current Terms of Reference

The Committee did not endorse the work plan at Annex G of the report.

The Committee approved the draft IHO Resolution 3/1919 as amended,

The Committee approved the minor amendment to IHO Resolution 2/1977

The Committee approved the draft revised text for IHO Resolution 27/1919, as amended,

The Committee approved the minor amendment to IHO Resolution 1/1977, as amended,

Action: IHB to seek Member States approval of the revisions of IHO Resolutions 3/1919, 27/1919, 1/1977 and 2/1977 as amended, by IHO Circular Letter.

Action: TSMAD to assist the TWLWG in the development of a tidal product specification for navigational surface and tidal data transfer that could be used for generating dynamic water levels and navigational surfaces in ECDIS.

Action: TWLWG to take note of and liaise with the Malacca and Singapore Straits Marine Electronic Highways (MEH) project, regarding the under keel clearance monitoring system.

5.9 Hydrographic Dictionary Working Group (HDWG)

The Committee noted the report, approved the continuation of the HDWG work under its current Terms of Reference, and endorsed the work plan at Annex B of the report.

The Committee approved the proposed new and revised definitions at Annex C of the report.

The Committee confirmed the need for a face to face meeting and invited the WG to act accordingly.

Action: IHB to seek Member States approval of the new definitions contained in Annex C of the HDWG report, by IHO Circular Letter.

5.10 Surface Currents Working Group (SCWG)

The Committee noted the report and endorsed the continuation of the SCWG work.

The Committee approved the proposed amendments to the Terms of Reference and Rules of Procedure contained at Annex B of the report (excepting changes to 1. Objectives) and endorsed the draft Work Plan.

Action: *see § 4.2.*

6. INTER-ORGANIZATIONAL BODIES

6.1 IHO-IAG Advisory Board on the Law Of the Sea (ABLOS)

The Committee noted the report and endorsed the revised TORs at Annex C and the continuation of the ABLOS work.

The Committee endorsed the draft edition 5.0.0 of the *TALOS Manual* C-51 and invited the IHB to circulate the publication to Member States for approval.

The Committee endorsed the draft Work Program at Annex B of the report.

Action: IHB to seek Member States approval of the draft edition 5.0.0 of the TALOS Manual (C-51), by IHO Circular Letter.

Action: IHB to invite the Chair of ABLOS to seek the approval of the revised Terms of Reference of ABLOS by IAG.

7. DECISIONS OF OTHER BODIES AFFECTING HSSC

7.1 E-navigation development affecting HSSC

The Committee noted the reports. The Committee agreed that IHB will continue to represent the views of the organization in the IMO Correspondence Group on e-navigation.

7.2 IMO activities affecting HSSC

The Committee noted the reports.

The Committee agreed that a new edition of S-66 should be included in the 2014-2015 HSSC work plan and tasked the IHB to invite Member States to propose experts who could contribute to the task on a voluntary or contractual basis.

Action: IHB to invite Member States to propose directly or through Primar / IC-ENC, experts to contribute to the revision of S-66.

7.3 IEC

The Committee noted the report and welcomed the close cooperation between IHO and IEC/TC80. The Committee invited IEC to liaise with TSMAD on S-100 issues until the new S-100 WG is established.

Action: IHB to prepare with IEC and CIRM a joint submission to NCSR 1 on the implementation of the new editions of ECDIS standards and invite MS to seek the support of their national maritime administration.

Action: IHB to contribute to a joint CIRM-IEC-IHO submission to NCSR 1 on Service Lifecycle Management (SLM) and invite MS to seek support of their national maritime administration.

Action: TSMAD to consider the impact of introducing Service Lifecycle Management (SLM) in the S-101 Roadmap and S-100 Master Plan.

7.4. Inland ENC Development and Standardization

The Committee noted the IEHG report.

7.5 CIRM

The Committee noted the CIRM report and welcomed the close cooperation between IHO and CIRM.

7.6 IALA

The Committee noted the IALA report and welcomed the close cooperation between IHO and IALA as well as the development of S-100 based Product Specifications by IALA.

7.7 OGP

The Committee noted the information provided in the presentation of the TSMAD Chair and welcomed the liaison established between TSMAD and the OGP Geomatics Committee.

7.8 IRCC

The Committee noted the oral report by the IHB. *See item 5.1J.*

7.9 JCOMM

The Committee agreed to postpone action HSSC4/10 until the 5th Session of JCOMM.

Action: IHB to prepare a submission to the 5th Session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) on elaborating a joint strategy to develop S-100 based multi-disciplinary products in the context of the implementation of the e-navigation strategy.

7.10 ISO

The Committee noted the report and invited the IHB to continue liaising with the relevant projects.

7.11 FIG

The Committee noted the report and welcomed closer cooperation with FIG/Commission 4.

8. REVIEW OF NEW DEVELOPMENTS AND OTHER INFORMATION PAPERS

The Committee noted the information papers submitted by the IHB, Australia, US and Republic of Korea, on behalf of the EAHC.

The Committee agreed to include an item in the work plan of each Working Group on:

- reviewing the information in the "English Next Edition" column of Appendix to Annex A of HSSC5-INF1 and considering whether any adjustment is needed regarding the next edition dates.
- consider possible requirements and contributions for translation in French and/or Spanish.

9. LIAISON WITH EXTERNAL STAKEHOLDERS

The Committee noted the report and agreed that there was no need to consider a stakeholders' meeting in conjunction with HSSC6.

Note: IHO or HO's participation in the events listed in Table 1 of HSSC5-INF5 to be refined through the endorsement of the minutes.

10. REVIEW AND ENDORSEMENT OF HSSC WORK PLAN AND LIST OF ACTIONS

The Committee reviewed the draft list of actions and agreed to finalize and approve the HSSC work plan and the list of actions by correspondence.

11. REVIEW OF HSSC INPUT TO EIHC-5

The Committee agreed to report to EIHC-5 on the following items:

- Relations with IMO (including the e-navigation strategy implementation plan)
- S-100 issues
- Re-structuring of HSSC.

12. DATE & LOCATION OF THE NEXT MEETINGS

The Committee welcomed the offer of Chile to host the next meeting in Valparaiso – Chile, from 10 to 14 November 2014.

The Committee invited Member States to propose venues for HSSC7 and HSSC8 noting that the fall-back venue would be the IHB, Monaco.

Action: MS are invited to propose venues for the HSSC7 and HSSC8 meetings to be held in early November 2015 and 2016 respectively.

13. CLOSURE

The Committee warmly thanked China for the excellent arrangements for the meeting.

The Committee congratulated Rear Admiral Zaaim Hasan (Malaysia), Mr. Alexis Hadjiantoniou (Greece) and Captain Shepard Smith (USA) for their recent promotions.

The Committee acknowledged the contribution of Captain Nitner (Poland), Mr. Juha Korhonen (Finland) and Mr. Michel Huet (IHB) who were attending their last HSSC meeting before retirement.