

## 17<sup>th</sup> Hydrographic Services and Standards Committee

### Stavanger, Norway

### 6-8 May 2025

#### Contribution to the IHO Work Programme 2025

Task 2.1.1 Organize, prepare, and report annual meetings of HSSC.

#### High level summary

- The Committee endorsed the Goals, Targets and Narratives of the proposed 2027-2032 Strategic Plan,
- The main contours of the future IHO Infrastructure Centre designed by its Project Team were considered mature enough to be submitted to the IHO Council,
- The Committee reached consensus on the need for a period of stability in the S-100 corpus of documents to facilitate S-100 implementation in ECDIS by OEMs,
- To ensure the timely completion of the operational edition of the S-100 Phase 2 Products specifications needed for Route Planning purpose (i.e. Phase 2), it was decided to transfer less critical products into a new phase trench (i.e. Phase 3),
- Following the approval of all Phase 1 S-10 Product Specifications by the IHO Member States, the proposed operational Edition of the S-130 Product Specification was endorsed by the Committee.

#### Meeting Participation & Opening

- The Hydrographic Services and Standards Committee (HSSC) convened from 6 to 8 May 2025 in Stavanger, Norway. The meeting was attended by 80 participants representing 29 IHO Member States, as well as representatives from industry and intergovernmental organizations. Member States in attendance included: Australia, Bangladesh, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, Greece, India, Indonesia, Iran, Japan, Latvia, Malaysia, Netherlands, Nigeria, Norway, Poland, Portugal, Republic of Korea, Singapore, South Africa, Spain, Sweden, Thailand, United Kingdom, and United States.
- Opening remarks were delivered by Mr. Gudmund Jønsson (Norway), Dr. John Nyberg (IHO), and Mr. Magnus Wallhagen (Chair, HSSC). These remarks introduced the host city celebrating its 900th Anniversary, acknowledged the complexity of the meeting agenda, and emphasized the opportunities for collaboration and progress.

#### 2027-2032 IHO Strategic Plan

- Mr. Hendrick Stang (Denmark) reported on the progress of the IHO Strategic Plan Working Group. The Committee focused on the assessment of the proposed Strategic Performance Indicators (SPIs), which were published and supported by an online survey conducted during the week to gather feedback. The proposed goals, targets, and narratives of the Strategic Plan were endorsed, with agreement to continue SPIs analysis throughout the session.
- Ms. Nathalie Leidinger (France), Vice-Chair of the Committee, presented an update on the implementation of the Strategic Plan and the HSSC related SPIs values for 2024.

## IHO Infrastructure Centre

- Dr. Benjamin Hell (Sweden) provided a briefing on the establishment phase of the IHO Infrastructure Centre. The Committee supported preparatory work on IHO basic documents. A robust discussion ensued regarding the potential future operations of the Centre and the IHO as a whole. Busan was proposed as the recommended location for the Centre.



## HSSC Bodies Reports

- The session on S-100 commenced with an industry presentation by CIRM, highlighting collaborative efforts with the IHO and offering recommendations for S-100 data distribution.
- Mr. Tom Mellor (UK) presented updates on the IHO Security Scheme, including ongoing updates to its contractual and procedural frameworks. The Committee discussed the increasingly operational nature of the IHO, legal jurisdiction concerns, and pricing considerations for future applications.
- Ms. Julia Powell (USA), Chair of the S-100 Working Group, reported on the group's achievements. Several operational editions were endorsed since the last HSSC meeting. S-100 Edition 5.2.1 is expected by late 2025, with Edition 6.0 planned for 2027/2028. The Working Group intends to ensure a period of stability for ECDIS implementation, effectively freezing S-100 Edition 5.2.X. Enhancements to S-98 include SECOM integration and improved safety contours. The group emphasized the need for further support to finalize S-98 and other specifications such as S-158, including validation checks. Feedback from stakeholders remains critical.
- Discussion on S-97, the guide to developing IHO standards, noted the need for updates to include data quality elements.
- The S-102 Working Group reported significant progress, including the election of a new Vice-Chair, Mr. Daniel Rhode (Germany).
- Mr. Eric Langlois (IHO) introduced the IHO's new project on standards documentation system, using the Metanorma framework. This semantic authoring platform supports the structured creation, validation, and publication of standards and Product Specifications. Several documents have already transitioned to Metanorma, starting with the S-102 Product Specification. Specific training among the IHO Secretariat and the HSSC WGs/PTs Chair Teams is scheduled to begin later in 2025.
- Ms. Nathalie Leidinger (France) reported on the activities of the HSSC ISO Cell, including new guidelines for sea trial areas and risk assessments for Phase 1 Product Specifications. S-98 and S-158 were identified as high-risk projects. The new sea trial area guidelines were approved, and Member States were invited to contribute additional trial sites.
- Mr. Louis Maltais (Canada) presented the CHS Sea Trial Area website and encouraged Member States to register and utilize its capabilities.

- In its ENC Working Group Report (ENCWG), Mr. Tom Mellor (UK) emphasized the need for additional expert contributors to support ENC standard maintenance. He highlighted issues including the declining pool of experts, the importance of meaningful CATZOC information, updates to submarine cable symbology, potential impacts of changes from S-52 to S-57, and the need for updated screen samples for S-64 Edition 4.
- He also delivered the final report of the ECS Project Team (ECSPT), which found increasing reliance on digital products by mariners. The PT recommended that the IHO maintain a list of ECS manufacturers, develop a tailored security scheme for ECS distribution, and consider collaboration with the IMO to address regulatory gaps for vessels under 3,000 GT. The HSSC approved disbandment of the PT and endorsed its recommendations.
- Mr. Carlos Marques (Portugal) presented the progress of the Hydrographic Survey Working Group (HSWG), including a proposal to rename the Satellite Derived Bathymetry Project Team (SdBPT) as Hydrographic Earth Observations PT (HEOPT). The group is currently rewriting the Hydrographic Manual under a compressed timeline.
- Mr. Chris Jones (UK) reported on the Tides, Currents, and Water Levels Working Group (TWCWG), which completed Editions 2.0.0 of S-111 and S-104. The WG is collaborating with HSWG on S-44 and developing a best practice guide on tidal analysis. Validation checks for S-104 and S-111 have been finalized and will be submitted for endorsement.
- Mr. Stefan Engström (Finland) presented updates from the NIPWG. NIPWG endorsed guidelines for harmonized communication and exchange of nautical data for port calls. The group has formed task teams for S-122, 123, 127, and 131, and is also coordinating with IALA on S-125. Notable progress was reported on S-131 through a collaboration with the Singapore Lab, resulting in an operational web tool. Work on ATon S-100 standards (S-201 and S-125) continues, with further discussion needed regarding testing and overlaps. NIPWG has transitioned from a Wiki to GitHub and now uses the Metanorma workflow. The HSSC Chair noted the vacancy of the NIPWG Vice-Chair position and encouraged MS to nominate candidates.
- Ms. Yuxiao Lyu (China) presented the Hydrographic Dictionary Correspondence Group's activities (HDCG). The group is aligning definitions from S-44 with S-32 and the GI Registry, and has begun using AI tools to streamline the updating process. The Committee tasked the HDCG to build some guidelines and rules of procedures to submit proposals for inclusion/modification/deletion of the Dictionary. In parallel, Mr. Jeff Wootton (IHO), IHO Geospatial Information Registry Manager, proposed a project to establish authoritative sources across the Hydrographic Dictionary and IHO Registry and volunteered to draft a proposal paper.
- Mr. Mikko Hovi (Finland) reported on the Nautical Cartography Working Group (NCWG), which approved several clarifications and is exploring automation of S-4 symbology within S-101.
- Mr. Lingzhi Wu (China) presented the work of the Data Quality Working Group (DQWG), which is analyzing CATZOC usage and performing crosschecks between data quality guidelines and S-1xx Product Specifications.
- Mr. Jens Schröder-Fürstenberg (Germany, WENDWG Chair) proposed that technical solutions be developed to resolve overlap issues. The HSSC tasked the S-100 Working Group to consider these solutions in the next S-98 review cycle, at least to make sure that an ECDIS system does not crash when in presence of an overlap.
- An activity report was presented by S-130 Project Team Chair Ms. Britt Lonneville (Belgium). The HSSC endorsed the operational Edition 2.0.0 of the S-130 Product Specification and Edition 1.0.0 of the S-130 validation checks, as well as the S-130 PT work plan for 2025-2026 and associated timeline.

### HSSC Related Bodies

- Additional presentations were delivered by the IHO Singapore Lab, CIRM, IALA, IEC, OGC, IC-ENC, Primar, and NATO GMWG.

- Mr. Friedhelm Moggert-Kägeler (Seven Cs) presented the Inland ENC Harmonization Group (IEHG) report. He highlighted the need for greater engagement between the IHO and IEHG, particularly regarding ECDIS.
- Finally, Mr. Daniel Carvalho (Brazil) reported on WMO activities. It was agreed that the WMO would be provided with an S-100 IHO GitHub repository instance for S-41x development.

### Group Photo



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### Upcoming meetings:

HSSC 18 will be held in Gdansk, Poland from 18-22 May 2026

HSSC 19 will be held in Busan, Korea dates in 2027 TBD