

9th Meeting of S-100 Working Group Genoa, Italy / Hybrid Meeting 4th – 8th November 2024

Contribution to the IHO Work Programme 2024

Task 2.1.2.1

Organize, prepare and report annual meetings of the S-100 Working Group

High level summary

- The meeting shared progress updates on product specifications under development by the S-100WG's project teams, including S-101, S-102, and S-129. A request for IHO Member States' approval for the operational edition of these standards (IHO CL39/2024) was noted. Appreciation was expressed for the ongoing efforts of the project team members.
- Key outcomes from the meeting included progress on S-100 Edition 6.0.0, with a review of previously submitted proposals and fourteen new proposals, of which approved items will be integrated into the edition, targeting publication by 2027. The working group endorsed the validation check for S-158:101 and discussed the review and approval of S-98 Edition 2.0.0, which outlines interoperability of S-100 data in navigation equipment, with the process scheduled for completion by March next year and final approval to be sought at the 17th HSSC meeting. Additionally, for S-164 Edition 2.0.0, a circular letter seeking approval is planned for distribution in August next year. The meeting also endorsed the need for a revision of IHO Resolution 2/2007 to incorporate a more structured version control process for approvals and agreed to submit this proposal to the HSSC for further consideration.
- This meeting was critical in advancing the S-100 standards framework, reinforcing the importance of interoperability and structured version control for maritime navigation standards. It provided a platform for coordinating efforts across working groups and project teams, setting timelines for key approvals, and supporting international collaboration on testbed projects, all of which are essential for the effective implementation of the S-100 roadmap.

Details:

The ES-100WG9 meeting was chaired by Ms. Julia Powell (United States), with Mr. Benjamin Hell (Sweden) and Elizabeth Hahessy (Denmark) serving as co-vice chairs. A total of 61 delegates participated, representing 22 Member States, including Australia, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Morocco, Netherlands, New Zealand, Norway, Republic of Korea, Slovenia, Spain, Sweden, the United Kingdom, and the USA, along with 30 Expert Contributors. The IHO Secretariat was represented by Assistant Director Yong Baek, with Technical Standards Support Officer Jeff Wootton.

Main Discussions and Decisions:

- S-100 Edition 6.0.0 Publication Plan and review proposals:
The group agreed on a plan to publish S-100 Edition 6.0.0 by 2027. Approved proposals for integration into Edition 6.0.0 include Part 1 URI, Part 7 all geometric primitives, Part 10b dataset identification, Part 10c scan direction references, optional timepoint and ID, Part 15 data status, signature reference, and edition number, and S-100 schema validation. A proposal for Part 17 exchange catalogue metadata was rejected, and the proposal for Part 15 schema was withdrawn.

- S-98 progress, and S-100 overlay on S-57 ENC:
The meeting agreed to circulate S-98 Edition 2.0.0 for review and comment prior to the S-100 Test Strategy Meeting scheduled for March 2025, with final comments to be addressed before submission to the next HSSC. Regarding the display of S-100 overlays on top of S-57 ENC, the group confirmed S-100 based non-ENC data overlay on S-57 chart data must not interact with or modify the underlying chart data in ECDIS, in particular the user selectable safety contour and water level adjustment features must only be implemented over S-101 charts.
- Progress on S-164 IHO Test Data Sets in ECDIS:
The meeting agreed that the S-164 Test Instruction Manual (TIM) will be submitted to the next HSSC, while the development of the Test Data Sets (TDS) will require additional time. The complete S-164 Edition 2.0.0 package is scheduled to enter the IHO approval process in August 2025.
- S-100 based Product Specification validation check:
The meeting focused on enhancing validation processes, aligning standards, and ensuring sustainable management of IHO resources. Key decisions included approving the S-158:101 validation checks for submission to HSSC and transferring responsibility for updating S-158:1xx checks from the S-100 Validation Checks subgroup to S-100 Product Specification (PS) owners, who will now use a standardized proposal form for changes.

The group also agreed to integrate S-100 Part 6 validation checks into S-98 to reduce redundancy, adopt a consistent Check Classification approach across standards, and simplify naming by removing the "S-" prefix from validation check names in the template. Document formatting was addressed, with the S-158:1xx cover document to be provided in Word and validation checks in Excel for easy access by the PS owners. Looking ahead, the meeting agreed to submit Edition 1.0 of S-158:100/98 to HSSC 17.

The working group will also continue discussions on adopting GitHub for document standardization, and the Validation subgroup will propose a long-term storage solution for validation checks at the next S-100WG meeting.

- Revision of IHO Resolution 2/2007:
During the last round of product specification submissions, inconsistencies in the versioning system used for the IHO endorsement process were noted. To address this, the meeting endorsed a proposal to revise IHO Resolution 2/2007, establishing a more structured version control process for standards approvals. This proposal will be submitted to the HSSC for further consideration, with the goal of improving consistency and oversight in the approval process.
- IHO Webpage Restructuring for ENC and ECDIS: IHO Assistant Director Yong BAEK proposed a restructuring of the IHO website for ENC and ECDIS sections and the meeting supported the proposed layout to improve accessibility and clarity. The restructuring will include essential resources, and progress will be reported in the next meeting.
- Test Bed and Sea Trials Demonstrations:
The meeting highlighted several collaborative sea trials and test bed projects presented by participants. These included a study by KHOA/KRISO on the ecological benefits of S-100 implementation, and a demonstration of the IHO-SGP dual-fuel ECDIS onboard the Italian ship *VESPUCCI*, showcasing its ability to display both S-57 and S-101 data and identify portrayal gaps in ENC datasets. Additionally, Canada shared its S-100 International Sea Trial Area plan, which aims to test and provide various S-100 datasets, contributing valuable insights to the broader S-100 development efforts.

Photo



Upcoming meetings:

The meeting confirmed the next S-100WG meetings will be held in September 2025 in Bali, Indonesia, and S-100WG11 in 2026 in New Zealand.