

9th Meeting of ENC Working Group Aalborg, Denmark 8th – 10th October 2024

Contribution to the IHO Work Programme 2024

Task 2.1.2.2

Organize, prepare and report annual meetings of the ENC Working Group

High level summary

- This meeting was crucial for advancing key updates to IHO standards, particularly the transition to S-100 ECDIS. It focused on critical issues such as ENC data integrity and navigation safety, laying the groundwork for the continued development of standards that will enhance ENCs and ensure alignment with evolving technological demands.
- The meeting addressed ENC overlap issues, vertical inconsistencies (RESARE), proposals for new digital chart symbols, progress on S-65 Annex B & C providing guidance for production, maintenance and distribution of ENCs, and a proposal to restructure the IHO webpage for ENC and ECDIS.
- Key outcomes from the meeting included actions to address ENC overlap issues, with RENCs tasked with reporting results to data producers, and the ENCWG Chair consulting OEMs on alarm functionality. The approval of Edition 4.0.4 of the S-52 Presentation Library for ECDIS was confirmed. New symbols for power and telecommunication cables in ECDIS were approved to support dual-fuel mode in S-100 ECDIS.

Details:

The ENCWG9 meeting was chaired by Mr. Thomas Mellor (United Kingdom), with Mr. Richard Fowle (Denmark) serving as vice-chair. A total of 52 delegates participated, representing 22 Member States, including Australia, Brazil, Canada, Chile, China, Denmark, Estonia, Finland, France, Germany, India, Indonesia, Italy, Malaysia, Morocco, Netherlands, Norway, Portugal, Republic of Korea, Sweden, the United Kingdom, and the USA, along with 11 Expert Contributors. The IHO Secretariat was represented by Assistant Director Yong Baek, with Technical Standards Support Officer Jeff Wootton joining remotely.

Main Discussions and Decisions:

- **ENC Overlap Issues:**
The group discussed concerns from the WENDWG13-10.1 NGA paper about ENC overlap issues. Two key problems were highlighted:
 1. ECDIS does not display the largest scale data.
 2. ECDIS does not provide alarms for navigational hazards from the largest scale data.

For the first issue, it was recommended that the Regional Hydrographic Commissions (RHCs) address overlapping cells. For the second, the ENCWG Chair will contact OEMs to ensure the current instructions in S-64 are sufficient.

- **Vertical Inconsistencies in ENCs (RESARE):**
The group reviewed reports on missing restricted area objects (RESARE) in larger scale charts, which are required to meet IMO ECDIS standards. RENCs conducted checks and reported concerns to data producers. ENCWG recommended that RENCs share the results with producers.

- **New Symbols for Power and Telecommunication Cables:**
A proposal was made to add new symbols for power, telecommunication, and overhead cables. These new line styles will be included in S-52 Edition 5.0.0 and S-64 Edition 4.0 to support dual-fuel mode in S-100 ECDIS. Engineering images were provided by Furuno and SevenCs, and the ENCWG Chair will submit the proposal to S-101PT for further review.
- **IHO Webpage Restructuring:**
IHO Assistant Director Yong BAEK proposed restructuring the IHO webpage for ENC and ECDIS, which the group supported. They recommended including IMO MSC 232(82) and MSC 530(106) on the webpage. Members will contribute resources, and the IHO Sec will report progress at the next meeting.
- **IHO-SGP Lab Project Report:**
The meeting reviewed the initial findings of the IHO-SGP Lab project, focusing on the display of S-101 over S-57 ENC. They also shared the results of the MSS conversion process, which reported no issues with the S-65 conversion guidance.
- **Drafting S-52 Edition 5.0.0:**
The WG drafted S-52 Edition 5.0.0, based on Edition 4.0.4 of S-52 PS. The draft was approved in principle, and comments will be collected from members. After an impact study following IHO Resolution 2/2007, the draft will be submitted to HSSC for approval.
- **S-64 Edition 4.0.0 Updates:**
The group discussed updates to S-64 Edition 4.0.0, including new test scenarios for ENC accuracy, hazard detection, and ECDIS viewing group layers. The focus was on ensuring alignment with changes from the draft S-52 Edition 5.0.0. Key actions include assessing the impact on ECDIS Chart 1 and screen plots, especially for newly approved cable symbols, and making any necessary updates.
- **Progress on S-65 Annex B & C Conversion Documents:**
Jeff Wootton reported on the progress of the S-65 Annex B and C conversion documents. The meeting approved the timeline for both Annexes, and the Conversion Sub-Group will submit draft versions of Annex B (Edition 2.0.0) and Annex C (Edition 1.0.0) to ENCWG for endorsement, followed by submission to HSSC for approval. Annex C will be submitted for IHO MS approval by the end of 2025.



Upcoming meetings:

The meeting confirmed the next ENCWG meetings will be held in September 2025 (Busan, Korea), WG11 in 2026 (Halifax, Canada), and WG12 in 2027 (Australia).