



**BALTIC SEA
HYDROGRAPHIC
COMMISSION**



IHO

HSSC Report

Agenda item C.1, Magnus Wallhagen, HSSC Chair

17th HSSC Meeting



Stavanger, Norway, 5 – 9 May 2025
29 IHO MS, 2 IGOs* and 3 NGOs**, RENCs IC-ENC and PRIMAR,
Academia and Industry. 80+ attendees

*IALA and WMO **CIRM, IEC, OGC

BSHC 30, Riga Latvia, 23 – 24 September 2025



S-100 Roadmap

Phase 1 Route Monitoring Mode

S-101 ENC ✓
S-102 Bathymetry ✓
S-104 Water Level ✓
S-111 Surface Currents ✓
S-124 Navigational Warnings ✓
S-129 UKC Management ✓

Critical Framework

IHO Geospatial Information Registry ✓
S-98 Interoperability Specification
S-100 Universal Hydrographic Data Model ✓
S-128 Catalogue of Nautical Products ✓
S-164 Test Data Set for S-100 and ECDIS Type Approval

- All core phase 1 Product Specifications have been approved: S-101, S-102, S-104, S-111, S-124, S-128 and S-129.
- S-100 5.2.x is the stable version for S-100 ECDIS type approval
- S-98 Interoperability
 - HSSC endorsed Ed 2.0.0, initial operational version: IHO CL 33/2025 issued for MS approval. Deadline 19 September.
 - Edition 3.0.0, operational version planned (bug fixes and basic Phase 2 support) for endorsement at HSSC18 (2026).
- S-164 Tests datasets
 - Ed 2.0.0 : Call for IHO MS approval planned for February 2026



S-100 Roadmap

- Creation of an additional Phase 3 in the S-100 Roadmap dedicated to new Product Specifications not currently having a clear timeline.

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Critical Framework

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Phase 2 Route Planning Mode

S-122 Marine Protected Areas
S-123 Marine Radio Services
S-125 Marine Aids to Navigation (AtoN)
S-127 Marine Traffic Management
S-131 Marine Harbour Infrastructure
S-411 Ice Information (WMO)
S-412 Weather and Wave Hazards (WMO)

+ S-100 Products used in
Monitoring Mode

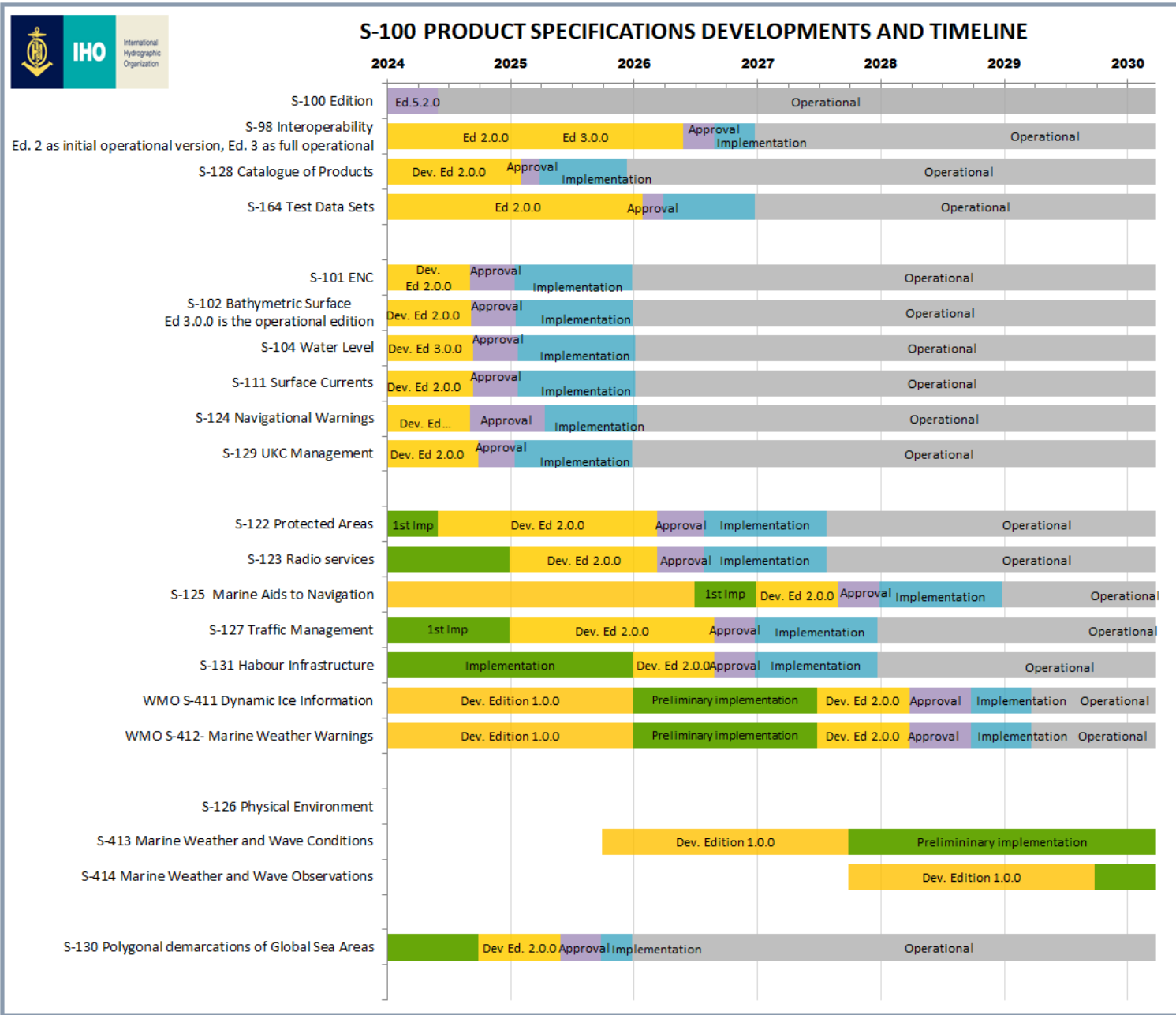
Phase 3 Route Planning Mode

S-126 Marine Physical Environment
S-413 Marine Weather and Wave Conditions (WMO)
S-414 Marine Weather and Wave Observations (WMO)

+ S-100 Products used in
Monitoring Mode



S-100 Timeline



Status IHO Infrastructure Centre Establishment

- Interim Establishment Manager contracted by Secretariat, full-time since March 2025. Next step to recruit a technical specialist.
- Infrastructure Centre Establishment Project Team (ICE PT) is continuously handing over tasks to the Infrastructure Centre itself.
- Site visits in February 2025. IHO Tech. Dir. John Nyberg, AD Yong Baek, HSSC Chair Magnus Wallhagen and ICE PT Chair Benjamin Hell.
- IHO Secretariat in close cooperation with HSSC drafted;
 - Host agreement
 - New and Amended Resolutions (Scope and Fund)
 - Amended Staff Regulations.
 - Further details in HSSC Council-9 Report, C9-04.1A, and input papers from IHO Sec and HSSC, C9-04.4A,B,C.



IHO Infrastructure Centre Establishment

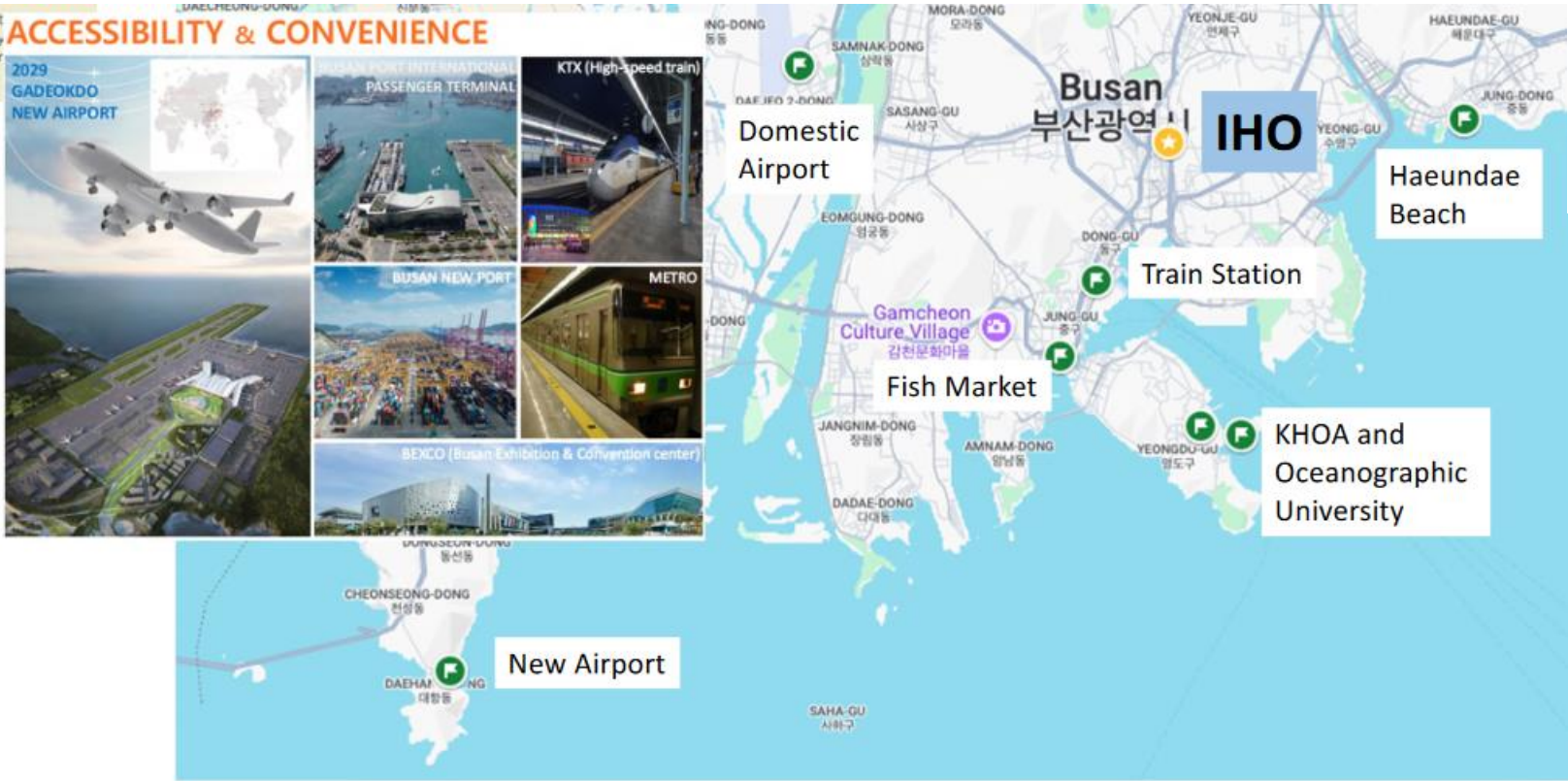
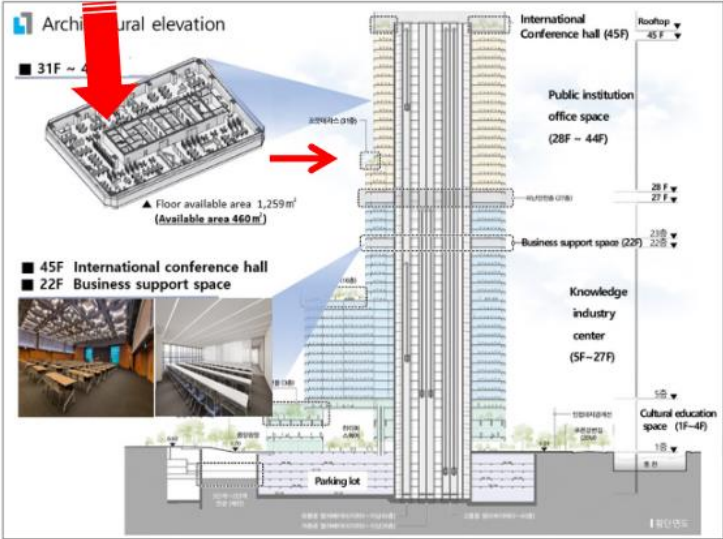
- HSSC endorsed the proposals and recommendations from the ICE-PT:
 - Framework for a future IHO operated intergovernmental MCP to support secure data distribution – This proposal, was endorsed in principle at HSSC level, but will be submitted to the IHO Council for approval with a clarified Business Case. MS are encouraged to provide feedback to support its consolidation.
 - PRIMAR and IHO Sec to agree upon a contract regulating PRIMAR's support of tools related to the operation of the Security Scheme



IHO Infrastructure Centre Location

Proposed Office selection:
Busan International Finance Centre
Based on assessment criteria developed by ICE PT.

IHO Infrastructure Centre



IHO Data Protection Scheme

- HSSC endorsed the IHO Data Protection Scheme Subscription model. Some further refinement is needed.
- HSSC noted the proposal from the FG PT to adopt a Subscription Model to charge for specific IHO services to developers of navigation systems.
- HSSC tasked ICE PT in liaison with the IHO Sec. to investigate the relevancy of a global certification authority (CA) – instead of self-signed IHO root certificate – and the setup of PKI (Public Key Infrastructure).



S-100 Sea Trials Areas

- HSSC-17 Endorsed the Guidelines for IHO Sea Trial Areas. Submitted to Council-9 for approval.
- Endorsement of the proposal from AU and FR/UK on their respective IHO S-100 Sea Trial Area initiative as official IHO S-100 Sea Trial Areas.
- Trials and testing are encouraged, with a focus on validating Phase 1 Product Specifications including interoperability functionality (S-98).
- All MS involved in Sea Trials are invited to use the Guidelines to report and share feedback through the HSSC ISO Cell.



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Standards Developments

- HSSC endorsed
 - ENC Portrayal, S-52:100 Ed 5.0.0 for dual fuel ECDIS
 - ENC Test Dataset, S-64:100 Ed 4.0.0 for dual fuel ECDIS
 - S-57 to S-101 conversion guideline, S-65 Annex B Ed 2.0.0
 - Chart Specifications, S-4 Edition 4.10.0
 - Polygonal Demarcations of Global Sea Areas, S-130 Edition 2.0.0
- IHO CL 33/2025 issued for MS approval. IHO CL for S-4 ed 4.1.0 will come later.
- HSSC approved :
 - S-101 to S-57 conversion guideline, S-65 Annex C Ed 1.0.0
 - Guidelines and Recommendations for the Allocation of CATZOC/QOBD Values from Survey Data, S-68 Edition 1.1.0
 - Validation Checks, S-158:100 Universal Data Model Ed 1.0.0
 - Validation Checks, S-158:98 Data Product Interoperability Ed 1.0.0
 - Validation Checks, S-158:102 Bathymetric Surface Ed 1.0.0
 - Validation Checks, S-158:130 Polygonal demarcations for Global Sea Areas Ed 1.0.0
- HSSC noted and endorsed the way forward to update S-97 – IHO Guidelines for creating S-100 Product Specification (Ed 2.0.0 expected for submission to HSSC18).



Other Highlights from HSSC17

- SENC delivery will not be supported for S-100
 - UKHO paper noted, action HSSC16/28 closed
- HSSC tasked S-100WG to handle Overlapping data issue in a future S-98 edition to at least prevent ECDIS crashes. In liaison with WENDWG.
- Description of ENDS (WENDWG)
 - ENCWG tasked to include it in S-66, Facts about Electronic Charts and Carriage Requirements
- Way forward approved to amend TR 2/2007 → provide guidance on IHO standards and procedures management.
 - Redline version submitted to the IHO Council C9.
- ECS PT submitted its final report. PT will be disbanded.
 - Development work of possible ECS Security Scheme assigned to S-100 WG with relevant priority.



HSSC Inputs to the IHO Strategic Plan Review and Proposal to Re-Organize WG/PT/SC under HSSC and IRCC

- HSSC endorsed the proposed Goals with the associated Narratives and the Targets
- Proposed to reduce the number of SPIs to achieve a better overview of IHO's performance.
- As a consequence of the finalization of the phase 1 S-100 Product Specifications and the new IHO Strategic Plan, HSSC has identified a need to reorganize the WG/PTs.
 - Proposal to IRCC to coordinate a reorganization to encompass both Committees
 - HSSC Chair and IRCC Chair request Council's mandate for a reorganization. Proposal to establish a Council Project Team.



BSHC 30 is invited to:

1. Note the HSSC report
2. Take any action as appropriate.

