

NSHC-37

## HSSC Report

Agenda item C.1

Magnus Wallhagen, HSSC Chair



NSHC-37, Malmö Sweden, 9 – 10 April 2024



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# S-100 IS HAPPENING NOW

International  
Hydrographic  
Organization

Pay attention to IHO CL 43/2023 where you will find the S-100 timeline for the phase 1 approval:

- Edition 5.2.0 of S-100 published for HSSC MS endorsement. Due date mid-March
- **IHO CL issued for MS approval of S-100 5.2.0, March – May.**
- Operational editions of phase 1 Product Specifications for HSSC MS endorsement, late August – mid-October.
- **IHO CL issued for MS approval of the operational editions of the phase 1 Product Specifications, late October – December.**

## 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



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# INCLUSION OF S-411 AND S-412

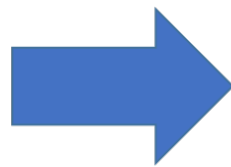
## Phase 1 / Route Monitoring

### 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



## Phase 2 / Route Planning

### Phase 2 Route Planning Mode

- S-122 Marine Protected Areas
- S-123 Marine Radio Services
- S-125 Marine Aids to Navigation (AtoN)
- S-126 Marine Physical Environment
- 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

S-98 and S-164 will be ready for MS approval mid 2025. Agreed with IEC.

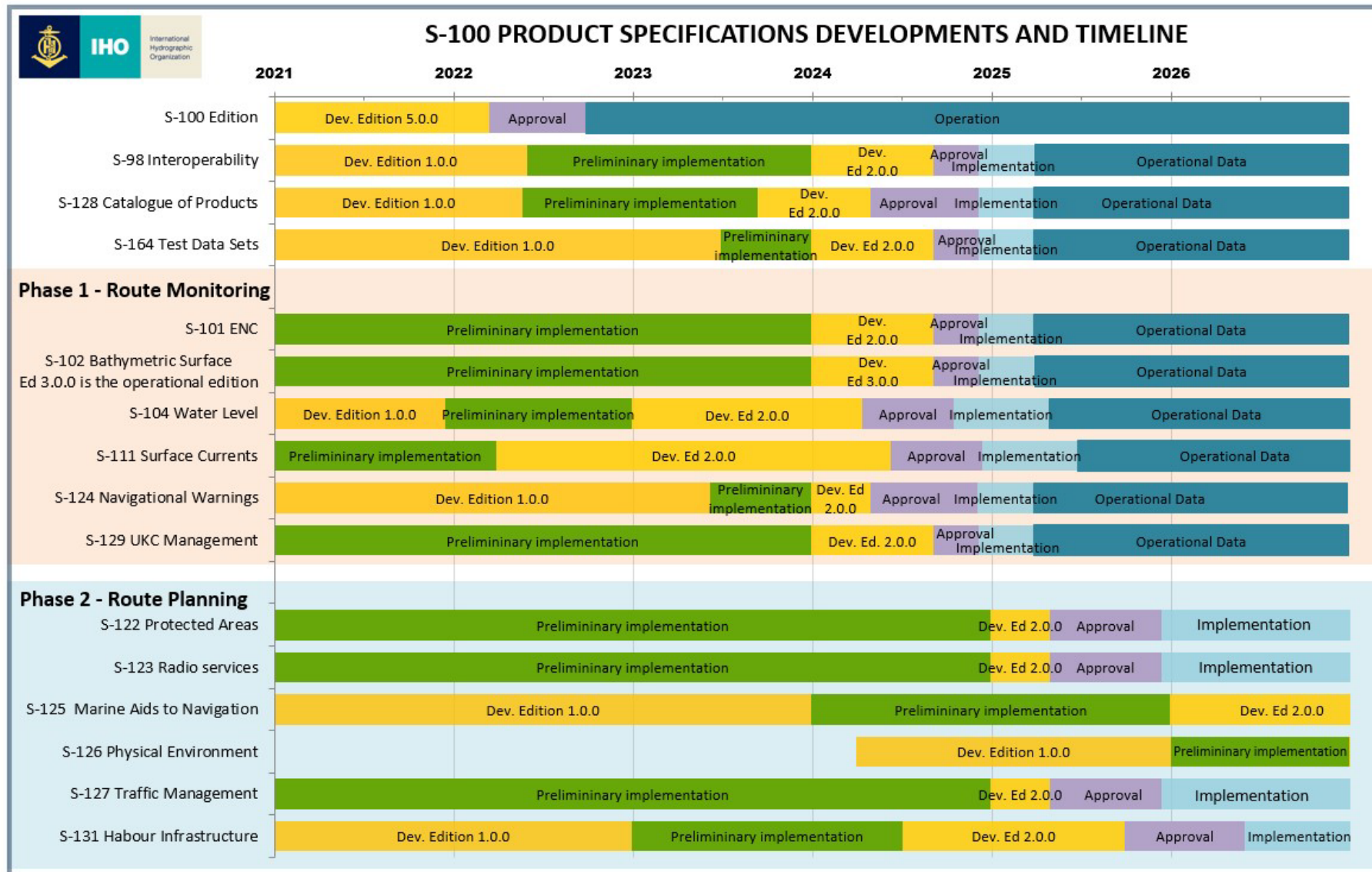
Product specifications for **Ice Information, S-411**, and **Weather and Wave Hazards, S-412**, is now included in Phase 2, Route Planning Mode. Developed by WMO as important S-100 metrology layers to be used in future S-100 ECDIS.



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# UPDATED S-100 TIMELINE

International Hydrographic Organization



This S-100 timeline is updated: July 9th, 2023.

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- HSSC ISO 9001 Cell is monitoring the development of S-101 and since HSSC 15 in addition also S-98 and S-164.



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# S-100 INFRASTRUCTURE CENTRE

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- Following A-3 PRO 2.2 by ROK, HSSC15 established a S-100 Infrastructure Centre *Establishment* PT (S-100 ICE PT) in accordance with A-3 decision A3/14.
- PT Objectives: To develop the management documents and operating plan for the proposed S-100 Infrastructure Center taking into account the following and report its progress to the HSSC:
  - The role, scope, function and governance
  - The composition, financial considerations, and work procedures
  - The location
  - A preliminary work plan
  - The timeline for the establishment
  - Support the HSSC with the creation of documents required to submit the proposal to the IHO Council.
- Progress will be reported by HSSC to the Council. Proposal expected by the S-100 ICE PT to HSSC 16, 2024.



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# S-100 SECURITY SCHEME

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- There are some challenges with the existing security scheme for S-57 ECDIS regarding the appointment and termination process.
- To secure an improved process for S-100, HSSC 15 decided to setup a S-100 Security Scheme PT to:
  - Develop the S-100 appointment and termination process
  - Analyse current IHO agreements. Ensure if they are legally binding.
  - Proposed process for new agreements within the S-100 Security Scheme
  - Propose a method to monitor agreements
  - Ensure S100 Security Scheme that the process is compatible with SECOM



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# SUB-ECDIS MARKET

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- A3 discussed a proposal from UK et al (PRO 2.3) regarding the future of digital charting, but no agreement was reached.
- UK and other MSs submitted a follow-up paper with a more limited scope for consideration to HSSC 15.
- Important stakeholders perspective at HSSC 15 to differentiate the sub-ECDIS market into at least three very different segments:

1) smaller SOLAS vessels (not included in the ECDIS carriage requirements)



2) commercial vessels (e.g. tug boats, smaller passenger ferries, fishing vessels) and yachts larger than 300 GT



3) leisure craft smaller than 300 GT





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# **ELECTRONIC CHART SYSTEM PROJECT TEAM**

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- Discussion at HSSC15 included arguments for and against regulating the sub-ECDIS market, at which level IHO needs to be involved and if there are actually any implications for the IHO Standards.
- HSSC15 decided to establish an ECS PT under the ENCWG.  
Objectives:
  - to identify and prioritize ECS navigation requirements
  - to analyse their impacts on current IHO hydrographic standards; and
  - to develop a set of recommendations/issues to be addressed by existing IHO bodies, external organisations, and member states.





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## IMO ACTIVITIES CONNECTED TO HSSC

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- NCSR10 in May 2023, endorsed the inclusion of a S-100/IEC standard, Route Plan S-421, for route exchange from ship to shore and from shore to ship into the IMO ECDIS Performance Standards.
- Also includes a standard for secure exchange of information between ship and shore, IEC SECOM. Note that SECOM would be relevant also for distribution of other applicable S-100 products.
- Inclusion of route exchange and SECOM follows the same transition plan as S-100 ECDIS (2026 – 2029).
- Final approval is expected at MSC 108 in May 2024.
- At MSC 107 a paper from Germany and ICS regarding paper charts was discussed. MSC requested the IMO and the IHO Secretariat to liaise and IHO to report on the status of paper chart coverage to IMO.
- IMO has also requested IHO to provide a more detailed progress report against the S-100 implementation roadmap in future updates. This is provided in an IHO report to MSC 108 including a report of the status of paper chart.



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## MISCELLANEOUS

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- A Stakeholders' session was arranged embedded in HSSC 15. Some interesting messages from the industry was:
  - S-101 alone does not offer much benefits for end users.
  - It is not enough with the Product Specifications only. We need to achieve S-100 data service coverage.
  - A roadmap that sunsets S-57 allows increased investment in S-100 ECDIS.
- The Chair and Vice-Chair of HSSC were re-elected for a new 3-year mandate.
- **HSSC 16 will take place in Tokyo, Japan 27 to 31 May 2024.** Registrations open until 15 April.
- New IHO Technical Director, Dr. John Nyberg. Welcome!



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## ACTIONS REQUESTED FROM NSHC-37

International  
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- Note the HSSC Report
- Note the S-100 timeline for the phase 1 approval and make certain that MS respond in a timely manner to avoid any delays in the approval process.  
Reference IHO CL 43/2023
- Note the stakeholders conclusion that S-101 ENC's only do not offer much benefit. The additional S-100 layers are the game changers.
- Encourage MS to engage actively in the HSSC WG/PT and the Committee.
- Take any action as appropriate