12th Meeting of the Hydrographic Services and Standards Committee

Report of the S100WG

Title

Agenda Item 5.1

HSSC-12, Virtual, 19-22, October 2020

- S-100 Edition 4.0.0 → Edition 5.0.0
- S-97 Guidebook for S-100 Development
- S-98 Interoperability Specification
- S-100 Test Data Set Development
- S-100 Test Bed Development
- S-100 Sea Trial

S-100 EDITION 5.0.0 (ORIGINAL PLAN)

- Agree to finalize Edition 5.0.0 by the end of 2020
  - S100WG Review and approve the redline edition in middle of 2020
  - TSM8 to resolve any outstanding comments
  - HSSC to send out a Letter asking for endorsement of S-100 Edition 5.0.0
  - IHO send out a CL asking for approval of S-100 Edition 5.0.0
  - Edition 5.0.0 published in 2021

S-100 EDITION 5.0.0 (ORIGINAL PLAN)

- Schedule Proposed to HSSC9

Month/Year	Action	Notes
April 2018	Final Consideration of proposals for the next edition of S-100	S100WG3
May 2018	Notification to HSSC10 of a new edition of S-100	
Early 2019	Publication of next edition of S-100	Edition 4.0.0 (have proposals that extend S-100)
March/April 2020	Final Consideration of proposal for next edition	
May 2020	Notification to HSSC12 of a new edition of S-100	
Early 2021	Publication of the next edition of S-100	

S100 EDITION 6.0.0 (PLANNED)

- Noting that the S-100 Implementation Strategy outlines Initial Operating Capability for S-101 by 2024
- Noting that the S100WG agreed that the following were high priority for inclusion for IOC.
  - Comprehensive Exchange Catalogue Metadata Review
  - Validation Checks
  - Inclusion of real time data transmission
- There is a need to aim for publication of S-100 Edition 6.0.0 by early 2023
  - Last proposal submission S100WG7 (March 2022)

- Product Specifications aiming for 2024 initial operations MUST be brought up to date with the latest edition of S-100?
  - 6.0.0 (2023)

- Or is there another way…..

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- Delay Edition 5.0.0 until early 2022 (Publication)
  - Final Proposals are (March 2021)
  - Allows for the finalization of the metadata extension
  - New Interoperability Part
  - Portrayal Harmonization + bits and bobs of S-52/S-63 ECDIS

- S-100 can still publish corrections and clarifications and hold new editions (which contains extensions) post 2024
  - Need to establish a proposal prioritization

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- HSSC12 is requested to delay the publication of S100 Edition 5.0.0 until 2022

- HSSC12 is requested to consider aligning the following product specifications to Edition 5.0.0 by 2023
  - S-101, S-102, S-104, S-111, S-122, S-123, S-129 and any others that are considered part of the S-100 Implementation Plan.

- Published Edition 1.0.0 in 2019

- Edition 1.1.0 released in 2020
  - Improved the Readability
  - S-100 Readiness Levels
  - HSSC Review Cycle
    - Included HSSC guidance on proposing a new PS

- Work continues towards Edition 1.0.0
- S100WG agreed to reorganization of S-98
  - S-100 Part 16 will be created as an abstract specification of interoperability
    - Contains the UML model and how to create the Interoperability Catalogue
  - S-98 Main Document – Describes how the abstract functionalities described in S-100 Part 16 are encoded and implemented
  - S-98 – Part A/B/C/D – Describes each interoperability level from 1 to 4
    - Provides the application schema

- No longer reference FoB/BoB as it leads to confusion about what data should be available for what type of activity.

- Data should be available for all functions:
  - Planning AND Monitoring

- All references to FoB/BoB will be removed from S-98

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- S100WG proposes to focus the scope of S-98 to:

Specification No.	Title
S-101	Electronic Navigational Chart (ENC) / *Cartes électroniques de navigation*
S-102	Bathymetric Surface / *Surface bathymétrique*
S-104	Water Level Information for Surface Navigation / *Information de hauteur d'eau pour la navigation de surface*
S-111	Surface currents / *Courants de surface*
S-129	Under Keel Clearance Management / *Gestion de dégagement sous la quille*

- There needs to be harmonization between this recommendation and the S-100 Implementation Roadmap
  - Includes S-122, S-124, and S-127
- S-98 can be expanded to include additional product specifications after initial operating capability has been achieved

S-98 INTEROPERABILITY SPECIFICATION

- HSSC12 is requested to note the progress of S-98 and the target approval for HSSC13

- IHO released a tender to complete an analysis of what types of test data sets are required for S-100 operations within an ECDIS environment

- How the multiple S-100 product specifications work within the scope of the ECDIS performance standard (IMO PS) in relation to the concept of a chart and "ENC" under SOLAS

- How those product specifications are then supported by other IHO standards for testing purposes under IEC 61174

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S-100 TEST DATA SET DEVELOPMENT

- In order to support the concept of an S-100 ECDIS a new type of S-64 will need to be created
- S-100WG has already started documenting the tests required and through in-kind effort has begun to create the TDS

S-100 TEST DATA SET CREATION

- HSSC12 is requested to note the progress of this work
- S100WG requests the use of S-164 for the S-100 Equivalent of S-64

- The **S-100 Open Online Platform (S-1OOP)** is defined as "*the Online Oceans*." It means …
  - ✓ that it is the foundation for moving the ocean activities to the online world by sharing it **easily and conveniently** to foster a safer and more prosperous ocean

Project Vision

S-1OOP will create the foundation for a marine ecosystem where stakeholders **can share data, information, and service** in an efficient and secure way to **facilitate the development of S-100 systems and services and marine products**. Such ecosystem will be used to support S-100 implementation and prepare future services.

- HSSC12 is requested to invite IHO MSs, experts and industry to consider joining the S-1OOP project.

- S-102 – High Resolution Bathymetry
  - Elected a new Project Team chair and vice chair
    - Chair – Jonathan Morin (CA)
    - Vice Chair – Lawrence Haselmaier (US)
  - Work will continue to progress S-102 to S-100 Readiness Level 4

- S-129 – Underkeel Clearance Management
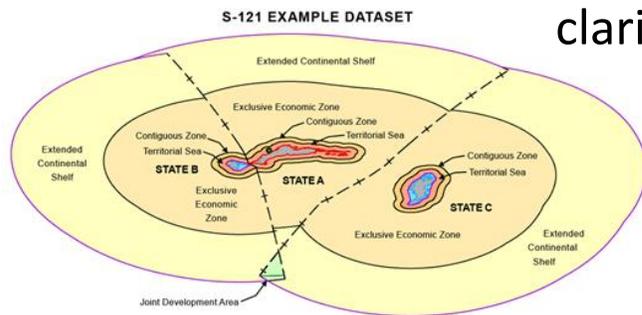 - Continue to progress work towards S-100 Readiness Level 4

S-121PT PRINCIPAL ACTIVITIES AND ACHIEVEMENTS

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1. IHO S-121 published following successful integration of comments by the Project Team at a face to face meeting in Monaco, August 2019

2. Standard now published as 1.0.0. More information also available via the dedicated project website and wiki (http://www.s-121.com)

3. The OGC pilot project (http://ogc.org/projects/initiatives/mlbp), supported by Canada, Australia and UK provided an initial test of its capabilities and potential.

4. The focus of the Project Team through its workplan is to actively support members, member states and others in "productionising" the standard and its live use.

5. The PT will also support, as necessary, activities developing the marine elements of the ISO19152 revision and notes the inclusion of S-121 in the UN-GGIM's activities, the UN Framework for Effective Land Administration (FELA) and the IGIF

6. No major revisions are planned to v1.0.0 of the standard. A limited number of clarifications will be incorporated into a version 1.1.0 (ongoing) during 2020/2021.

S-121 EXAMPLE DATASET

PROPOSED MEETING SCHEDULE

- Will begin holding short VTC meetings to continue to move progress forward
  - S-100 Test Datasets
  - Dual Fuel Work
  - Improved Metadata
- March 2021 – Potential in person TSM meeting (Monaco)
- November 2021 – S100WG6 (Finland)

1. Test Data Sets in Support of S-100 Implementation
    1. S-101
    2. Other products identified as part of S-98 IOC
2. S-100 Validation Checks
    1. S-101 Validation
    2. Other S-98 Validation Checks
3. S-100 Edition 5.0.0 (6.0.0) Finalization
4. Align S-101 Edition 2.0.0 to the draft Edition of S-100 Edition 5.0.0 for 2024 IOC