



# **S-100 Validation Tests sub group**

**7<sup>th</sup> VTC Meeting**

**26<sup>th</sup> February 2024**



IHO

# MEETING PROTOCOL

International  
Hydrographic  
Organization

Meeting participants are kindly requested to note the following meeting protocols;

- Please keep your camera and microphone turned “**off**” if you are not talking or presenting
- If you want to make an intervention, **please turn your camera and microphone on and, raise your hand** to indicate that you wish to speak
- Don’t forget to turn your microphone “**on**” before speaking, and “**off**” when finished
- Please use the “**Chat**” function to communicate an text information to the meeting
- If you have any problems connecting using Firefox or other browser – please try using Chrome.



- S-100 WG8
  - Summary of sub-working group report
  - 8.1 Cross Validation Checks
  - 8.2 Standardised naming convention and structure for Product Specifications
  - Actions affecting S-100 Validation group (incl. S-104 & S-102)
- Initial tests Part1, Part 2, Part 4b, Part 5, Part 6, Part 7(not finished), **Part 10c**, Part 17
- Issues raised
- Status on tasks
- Next meeting



IHO

**S-100 WG8 – 13-17<sup>TH</sup> NOVEMBER, SINGAPORE**

International  
Hydrographic  
Organization

## Summary of sub-group report

[https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/S-100WG8/EN\\_S100%20Validation%20sub%20group%20report.pdf](https://iho.int/uploads/user/Services%20and%20Standards/S-100WG/S-100WG8/EN_S100%20Validation%20sub%20group%20report.pdf)

### Progress on validation checks produced to date

- Pleased with progress
- 368 checks – however, not necessarily a good thing to have so many
  - Need reviewing
- Noted issues with resources to write and review the tests
  - Going to speak to Julia if there is a possibility for IHO funds
- It was acknowledged that the tests will evolve over time
- Stated that each Product Specification will need to check for duplication
- Categorisation – will initially use long text name of S-100 Part numbers



IHO

# S-100 WG8 – 13-17<sup>TH</sup> NOVEMBER, SINGAPORE CONT.

International  
Hydrographic  
Organization

## Deadline

- For development of checks – HSSC17 (2025)

## How publish?

- Following discussion - agreed to use S-158 – will be requested at HSSC
  - Provides flexibility for updating
  - Registry not feasible – would require a new registry to be created
  - Potentially separate appendix/annex for validation checks for each Product Specification – action on subgroup & Jeff to investigate maintenance for Validation Checks and to report recommendations back to S-100WG9 (4<sup>th</sup> Nov, 2024, Genoa)



IHO

# PAPERS TO S-100WG 8

International  
Hydrographic  
Organization

## 8.1 S-100 Validation Tests and Cross-Product Validation

Joint paper submitted between S-100 Val & S-98/S-164 sub groups - revised following sub group meeting in October <https://portal.iho.int/share/files/714>

### Key points:

What is S-100 Validation?

What is meant by validation?

### Action Required of S-100 WG:

- Endorse the different types of validation required for S-100

[Decision 8/31] S-100WG8 approved the proposal on the different types of validation requirements at the S-100 Product Specification level and the overall S-100 level.



IHO

# PAPERS TO S-100WG 8 CONT.

International  
Hydrographic  
Organization

## Cross-Product Validation (or another term)

### Action Required of S-100 WG:

- Invite the S-100 Validation subgroup to liaise with the S-98/S-164 subgroup and DQWG to clarify the definitions and scope of the different validation tests.
- Endorse the drafting of an appendix to S-98 to contain Cross-Product Validation Tests
- Task the S-98/S-164 & S-100 Validation Sub Groups to complete initial content of these tests by working with the relevant Product Specification project teams.

**[Action 8/44]** S-100 Validation SG to coordinate with the S-98/S-164 SG and DQWG to clarify the definitions and scope of the different validation tests. S-100 Validation SG Lead to submit their recommendations to the next S-100WG for discussion if appropriate

**[Decision 8/29]** S-100WG8 agreed the change of the scope of S-98 to include a distinct Appendix within S-98, defining checks for compatibility between datasets from different Product Specifications for defined purposes (in particular for S-98 water level adjustment).

- Produced jointly between the S-98/S164 & the S-100 Validation sub groups in liaison with the respective Product Specification groups.
- The scope of these tests will only cover datasets that are to be used in an interoperable manner.



IHO

# PAPERS TO S-100WG 8 CONT.

International  
Hydrographic  
Organization

## 8.2 Standardised naming convention and structure for S-100 PS

Submitted by me on behalf of S-100 Validation group revised following October meeting <https://portal.iho.int/share/files/713>

### Key points:

Different PS and S-100 Validation tests but there are numerous styles of naming conventions and structure of tests (S-100, NIPWG, TWCWG, WWNWS, IALA)

### Action Required of S-100 WG:

- Endorse the standardisation of a naming convention with the use of the Product Specification number at the front of the check and the use of only numerical Check IDs
  - [Decision 8/32] S-100WG8 endorsed
- Invite the S-100 Validation sub group to liaise with the Product Specification sub groups & Project Teams to agree a standardised structure to the validation tests
  - [Action 8/45] S-100 Validation SG Lead to submit the draft guideline/template to S-100WG for approval via a S-100WG Letter.
- Agree how widespread the standardisation is required, whether limited to: Working Groups & Project Teams, IHO Domain or all S-100 Product Specifications
  - Agreed to just the first phase products (PS due for 2026 release)
- Endorse the updating of S-97 to include guidance on standardised naming convention and check structure, if endorsed above
  - [Decision 8/33] S-100WG8 endorsed the updating of S-97 to include a guidance/template on a standardised naming convention for Checks and a core Check structure, the structure being extensible in Product Specifications as the WG/PT responsible for the PS considers necessary.





IHO

# S-100WG8 TOPICS AFFECTING S-100 VALIDATION

International  
Hydrographic  
Organization

## Versioning

- How handle different versions of FC, PC, DCEG etc.?
- How record validation checks against different versions?

## Part10b Implementation guidance

- **[Action 8/40]** S-100 Validation SG in consultation of NIPWG Chair to review the implementation guidance document and include changes to the Validation Checks guidance as appropriate.

## Relevant for cross product validation

- S-104 – regular grid only
- S-102 – discussion regarding ‘holes’

## S-98

- Agreed that S-100 Val & S-98/S-164 will review S-98 Annex C and see if checks are required

## General request

- Raise an issue if find and issue that will need covering by Validation tests



IHO

# STATUS ON PARTS REVIEW

International  
Hydrographic  
Organization

- Initial tests Part1, Part 2, Part 4b, Part 5, Part 6, Part 7(not finished), Part 8, Part 10c, Part 17
  - Parts 15 (Data Protection Scheme) & 16 (Interoperability Catalogue Model) allocated
- S-101 (Part 1) to be incorporated once formatted.
- Prioritised list remaining
  - 18 (Language Packs)
  - 10b (GML Encoding)
  - 9 (Portrayal)
- Are there any other checks required for 2024 PS deadlines?



# IHO ISSUES

International  
Hydrographic  
Organization

- Open Issues - 36
- Main focus – 10c Checks
  - 52 uploaded
  - 16 issues – need reviewing as a priority

<https://github.com/iho-ohi/S-100-Validation-Checks/issues>



IHO

## NEXT STEPS

International  
Hydrographic  
Organization

- Continue producing a set of tests from Parts of S-100 & incorporate other tests (S-101, IIC etc.)
  - Tabulate and place on GitHub
  - **Then group to comment and raise issues using Check ID in title**
  - 204 tests written from Part1, Part 2, Part 4b, Part 5, Part 6, Part 7 (not finished), Part 10c, Part 17
    - 164 from S-101 Proposed tests (368 in total) Need reformatting and inserting into spreadsheet
    - Speak to Julia about assistance
- Focus on 10c Issues Raised – review and comment, need to close off soon
- Finalise and circulate naming convention and validation test structure
- Coordinate Cross-Product Validation with S-98/S-164 lead, DQWG and S-1xx PS owners
  - Scope outlined for TSM
- Categorisation of tests – [use Part long name](#)
- Document write up with an initial explanation of ‘what is S-100 level validation’ requesting S-158 from TSM



**IHO**

# **NEXT MEETINGS**

International  
Hydrographic  
Organization

S-100 TSM meeting 12-15<sup>th</sup> March

Need to get the checks affecting S-101 ready before June

Suggest next meeting is Tuesday 9<sup>th</sup> April (S-130PT meeting on Monday)

Do we need a smaller meeting earlier to discuss 10c checks?



IHO

International  
Hydrographic  
Organization

Any Questions?



IHO

# PAPERS TO S-100WG 8

International  
Hydrographic  
Organization

## 8.1 S-100 Validation Tests and Cross-Product Validation

Joint paper submitted by me and Jonathan (S-98/S-164 lead) revised following subgroup meeting in October  
<https://portal.iho.int/share/files/714>

### Key points:

What is S-100 Validation?

What is meant by validation?

1. The dataset itself is valid according to the Product Specification Validation Tests
2. The dataset is valid against datasets of the same product type (e.g. S-101 vs S-101)
3. S-100 level Validation Tests (apply to all datasets e.g. Feature Catalogue against Portrayal Catalogue, if a Portrayal Catalogue is present).
4. Tests of individual S-100 components themselves (e.g. whether feature/portrayal catalogues are consistent with each other and conform to the S-100 schemas)

Additionally, there is another type of validation that has not been catered for here, which is whether a dataset is “valid” (or compatible with) another dataset of a different type e.g. S-101 vs S-102, a form of cross-product validation.

### Action Required of S-100 WG:

- Endorse the different types of validation required for S-100



- Open Issues

- **Issue 14 (Invalid Geometries)** [Invalid geometries · Issue #14 · iho-ohi/S-100-Validation-Checks · GitHub](#)
- Issue 9 (Part 17 checks) – amended wording for items 1, 2 & 4. Item 3 TBD at S-100WG8. Item 5, need S-100 Part Reference link.
- Issue 10 (Checks for organization and individual information in CATALOG.XML) – not completed yet
- Issue 11 (Proposed checks for locale consistency between resource and discovery metadata block) – paper submitted to S-100 WG8. Review after meeting. <http://iho-portal.bluemap.kr/share/files/387>
- Issue 7 (use of “unknown” for feature attribute binding) - closed
- Issue 13 (Input on proposed checks relating to HDF5-format products) – following S-100 WG8 will review, likely moved to Cross-Product Validation
- Issue 6 (naming convention) – temporarily on hold with decision on Dev ID. Will review after S-100 WG8