**Input paper: [[1]](#footnote-1)** ARM21-8.4.3

**Input paper for the following Committee(s):** **Purpose of paper:**

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**Agenda item** [[2]](#footnote-2) 8.4

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**Author(s)/Submitter(s)** IHO NIPWG

S-125 IHO APPROVAL PROCESS AND FURTHER DEVELOPMENT

# Summary

S-125 has been developed by IALA ARM as a subset of S-201. IALA ARM 20 approved the 2.0.0 version of S-201, and also the 1.0.0 version of S-125. Accordingly, IHO NIPWG 12 was invited by ARM 20 to review S-125 Edition 1.0.0 and to initiate the IHO product specification approval process.

IHO NIPWG wishes to thank IALA ARM for the work put into the development of S-125 and the related services. In order to initiate and progress the IHO- approval process of S-125, NIPWG 12 established a specific S-125 Task Group (S-125 TG). The S-125 TG will be the main forum for discussions regarding S-125. S-125 TG is open for participants outside of IHO NIPWG, and especially IALA ARM participants are encouraged to participate.

# Background

Liaison Note ARM 20-11.3.1 From IALA To IHO NIPWG notifies of the progress of the development, and the approval, by IALA ARM, of a S-125 1.0.0 Release Candidate version, that is sent to IHO NIPWG for approval within the IHO process.

*At ARM20, the Committee approved S-125 Edition 1.0.0 and deemed it ready for test implementation. Accordingly, IHO NIPWG is invited to review S-125 Edition 1.0.0 and to initiate the IHO product specification approval process for the current edition.*

Together with the liaison note, a package of the S-125 product specification was provided in June 2025. An IHO GitHub repository was established and the package was uploaded. The S-125 product specification update at NIPWG VTC 2/25 (09-3.1A), announced the plan to submit a subsequent version of S-125 1.0.0, which includes the updates applied during the approval process of S-201 2.0, prior NIPWG12 in September 2025. An update was uploaded to GitHub September 2 2025. All parts of the specification, including Human readable documents are available for download in the GitHub repository.

# Discussion

NIPWG would like to thank IALA ARM for the development of S-125 as a subset of S-201, including portrayal and participation in discussions regarding use-cases and cross-use of products.

## S-125 development versions and issue tracking

IHO NIPWG uses GitHub for product-specification development. S-125 is added to an IHO GitHub repository. Feedback on the data model is collected and discussed using GitHub issues.

<https://github.com/iho-ohi/S-125-Product-Specification-Development/>

## Forum for S-125 related discussions

The specification is planned for inclusion in ECDIS, although the details in regards of use-cases, portrayal, and interoperability must be further discussed in relation to the current plans for S-98 interoperability.

As the S-125 product specification is owned by IHO NIPWG, it must be approved within the IHO- process, the main forum for discussions related to S-125 shall be the S-125 TG, which reports to NIPWG. Participation in S-125TG is open to anyone, and IALA ARM members are encouraged to join the TG.

Specific Terms of Reference for S-125TG are still under development, but topics identified for discussion include;

* Portrayal and use of S-125 on ECDIS, considering the current S-98 interoperability timeline
* Other use-cases related to S-201 and S-125
* Interoperability between S-101, S-124 and S-125
* Cooperation between IHO and IALA and coordinated management of S-101, S-201 and S-125
* Technical services related to S-125
* The future development of S-125

## S-125 REVIEW and INITIAL discussions

A few notes on topics discussed at NIPWG 12 and the subsequent S-125 TG- meeting.

### Review of S-125

By request of the S-125 TG, Members of NIPWG and the S-125TG has initiated a review of the current version of S-125. Results of the review are not yet available, but initial findings will be reported at the IALA ARM 21 meeting.

### S-125 within S-98 and the S-100 ECDIS

The IHO S-98 ECDIS interoperability specification defines, which products are mandatory or optional to display on a type approved ECDIS. Due to the timelines, it is not possible to include S-125 as a mandatory requirement in S-98 at this stage. Based on discussions at NIPWG 12, S-125 will be included in S-98 as an optional requirement. Inclusion as a mandatory requirement requires, that the product specification is published by the time the mandatory requirement in S-98 is published. The S-98 3.0.0 will be approved by HSSC 18, but it is not possible to publish a production-ready version of S-125 by that time. Timelines are described below in more detail.

### Management of S-125 within IHO

IHO NIPWG is transitioning into using Metanorma (an ASCIIDOC- based system) for production of the Human Readable documents in product specifications. The current S-125 documentation has been translated into ASCIIDOC, but it is currently not yet determined how the specification should be maintained.

## Timelines

The IHO approval process is guided by IHO resolution 2/2007 *PRINCIPLES AND PROCEDURES FOR MAKING CHANGES TO IHO TECHNICAL STANDARDS AND SPECIFICATIONS.*

The approval process includes approval on different levels. After approval at the workgroup level (NIPWG), the specification is approved by the Hydrographic Services and Standards Committee (HSSC). After approval by HSSC, an approval is finalized by a Member State (MS) vote. Each product specification must be initially approved as a public test-version (1.0.0), in order to ensure possibilities to test the specification before a production-ready version (>=2.0.0) is published. IHO further specifies Technical Readiness Levels (TRL) and additional requirements related to the different versions.

The quickest path possible within the IHO process, is to have the S-125 1.0.0 test-version approved by NIPWG VTC1/26 in January 2026, HSSC 18 in May 2026 and then by MS- vote after HSSC. It is anticipated the S-125 1.0.0 could be published a few months after HSSC 18. Timelines for the initial production ready version 2.0.0 will be specified later, based on the outcome of 1.0.0.

In order for this timeline to be possible, an updated version of S-125 must be made available in order for NIPWG to review already at the 03/25 VTC Meeting December 11 2025. Initial tests within NIPWG indicate a need to further align S-125 with S-201 and make some corrections to the data model / machine readable files. Results of the NIPWG review are documented as GitHub- issues within the repository <https://github.com/iho-ohi/S-125-Product-Specification-Development/>

Further requirements and more detailed test-results of the current version can be discussed at ARM 21 and the next S-125TG meetings.

## S-125 Task Group VTC- meeting during IALA ARM 21

A S-125 TG meeting is planned to be held during the IALA ARM 21, as a joint IALA IHO- meeting.

# Action requested of the Committee

The Committee is requested to take note of this input and consider participation in the S-125 TG and continue discussions related to S-125.

1. Input document number, to be assigned by the Committee Secretary [↑](#footnote-ref-1)
2. Leave open if uncertain [↑](#footnote-ref-2)