

**15th Meeting of the Hydrographic Services and Standards Committee
(HSSC-15)
Helsinki, Finland, 5 – 9 June 2023**

Contribution to the IHO Work Programme 2023	
Task 2.1.1	Organize, prepare, and report annual meetings of HSSC

The 15th meeting of the Hydrographic Services and Standards Committee (HSSC) was held in Helsinki, Finland, from 5 to 9 June 2023, hosted by Traficom, the Finnish Transport and Communications Agency. An embedded Industry Stakeholders' Session was arranged for two half-day sessions themed “*S-100 Industry Perspective*”, which offered an opportunity to IHO Member States to interact with stakeholders regarding the concerns and challenges with S-100 implementation.

The meeting was chaired by Mr Magnus Wallhagen (SMA¹, Sweden) and attended by 76 registered participants from 28 Member States (Australia, Belgium, Brazil, Canada, China, Croatia, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Latvia, Netherlands, Norway, Poland, Portugal, Republic of Korea, Romania, Singapore, Spain, Sweden, United Kingdom, and United States of America), four Partner Organizations (CIRM, ICPC², IEC, IALA) and three subject matter experts (IC-ENC, PRIMAR, EAHC-RECC). Eleven stakeholders, namely Sperry Marine, SevenCs, Canadian Coast Guard, RENCs, Teledyne Caris, IIC Technologies, Furuno, National Taiwan Ocean University, Esri, and ChartWorld, representing industry, academia, OEM, and chart suppliers, provided their *S-100 Industry Perspective* in two main sessions, the first in person since the pandemic. The IHO Secretariat was represented by Director Abri Kampfer (HSSC Secretary) and Assistant Director Yves Guillam (HSSC Assistant Secretary).

Ms Pipsa Eklund, Director for Maritime and Transport Services at Traficom, and Mr Rainer Mustaniemi, National Hydrographer of Finland, welcomed the participants in Helsinki and highlighted the importance of the development of standards and interoperable services, in particular in the new S-100 operational era coming to reality in less than three years.

The HSSC Chair opened the meeting with a full review of the main decisions from the 3rd Session of the Assembly having a possible impact on HSSC, which was followed in particular by decisions for the establishment of two project teams, the TORs of which were drafted during an ad hoc session:

- The S-100 Infrastructure Centre Establishment Project Team, under HSSC, the outcome of which will be also monitored at Council level;
- The Electronic Chart System Project Team, under the ENCWG, aiming to develop a set of recommendations/issues to be considered by existing IHO bodies, external organisations, and Member States on ECS³ navigational requirements having an impact on current IHO standards.

While the priority of the meeting was to reassert the need for the different WGs to concentrate the efforts and subsequent resources on the critical path and S-100 based product specifications

¹ Swedish Maritime Administration.

² International Cable Protection Committee

³ Sub-ECDIS unregulated market, from leisure boats to large non-SOLAS vessels.

identified for the Phase 1/Route Monitoring in the S-100 Roadmap, HSSC endorsed S-100, Ed. 5.1.0 - IHO Universal Hydrographic Data Model and approved a significant number of new Editions at this meeting, commending the work of the relevant WGs/PTs, and Member States involved in the outstanding developments achieved since HSSC-14. In accordance with the principles stated in IHO Resolution 2/2007, it was reminded that all Editions enumerated as 1.0.0 were for initial implementation, testing and evaluation.

These *Standards* are:

- S-131, Ed. 1.0.0 - *Marine Harbour Infrastructure*;
- S-164, Ed. 1.0.0 - *IHO Test Data Sets in ECDIS*;
- S-68, Ed. 1.0.0 - *Guidelines and Recommendations for Hydrographic Offices for the allocation of CATZOC/QoBD Values from Survey Data*;
- S-124, Ed. 1.0.0 - *Navigational Warnings*;
- S-130, Ed. 1.0.0 - *Polygonal Demarcations of Global Sea Areas*;
- B-13, Ed. 1.0.0 - *Guidance to Satellite-Derived Bathymetry*.



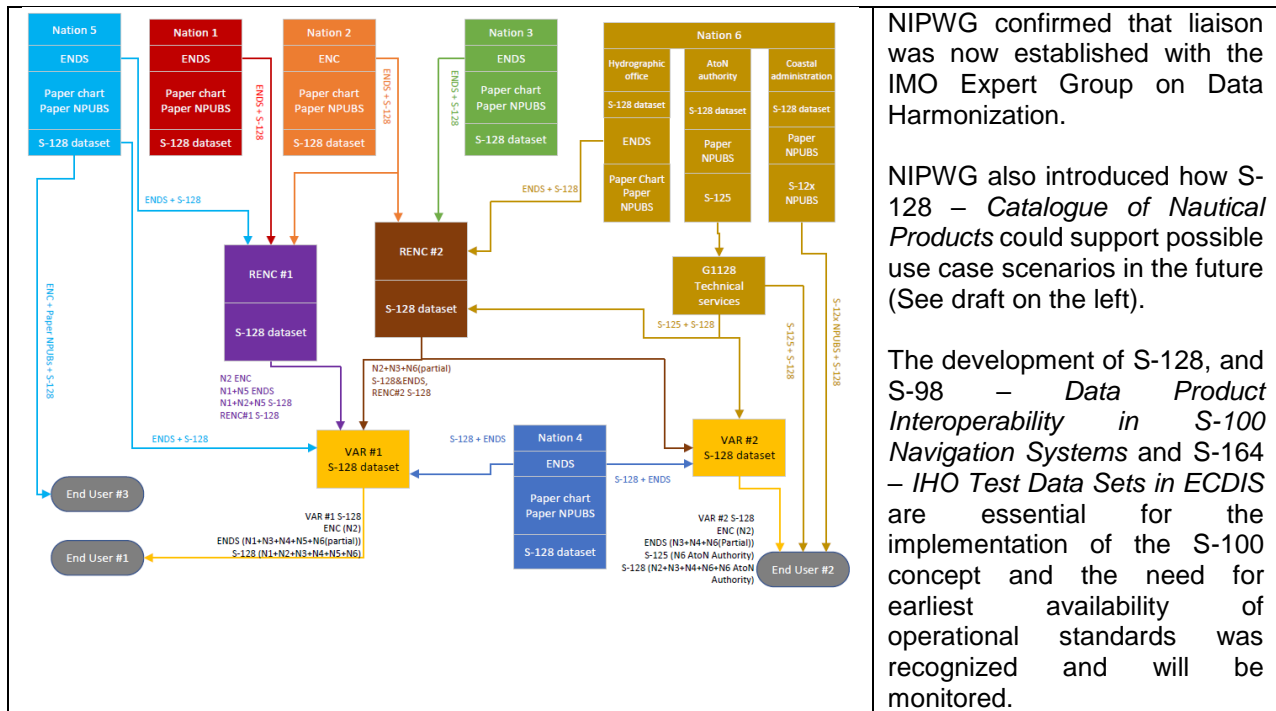
The publication of S-104, Ed. 1.1.0 - *Water Level Information for Surface Navigation* and S-111, Ed. 1.2.0 – *Surface Currents*, expected in June 2023, were also duly noted. The confirmation of the publication in April 2023 of the Ed. 1.1.0 – *ENC Product Specification*, the cornerstone of the S-100 concept, was also very well received.

The HSSC approved the establishment of the S-100 Security Scheme PT under HSSC, mainly to develop the S-100 appointment and termination process for data servers, OEMs and ENDS service providers, and to analyse the current IHO agreements to ensure they are legally binding.

In order to avoid that the IHO is obliged to submit a change proposal to an important IMO MSC Circular⁴ through a complicated procedure, HSSC agreed that it was wiser to keep the former title of Publication S-66 - *Facts about Electronic Charts and Carriage Requirements*, for the Ed. 2.0.0 of a (new) Publication to come, resulting from the merging of the existing Editions of S-66 and S-67 and inclusion of additional information relevant to Mariners and Port State Control authorities.

An impact study to be made in accordance with IHO Resolution 2/2007 was requested by the HSSC from the ENCWG prior to the endorsement of a new Edition 4.0.0 of S-64 since there were some concerns raised during the discussions on the possible negative effects of this new Edition on current S-57 ECDIS and the implementation of the S-100 ECDIS from 2026.

⁴ IMO MSC.1/Circ.1503/Rev.2 *ECDIS – “Guidance for Good Practice”*



Following a submission paper from Germany addressing several issues on paper charts carriage requirements (legal aspects, etc.), maintenance, and coverage in the context of a full IMO ECDIS mandatory carriage requirement in the future, drafted in the wake of the announcement by the UKHO of the withdrawal of Admiralty paper charts, planned in 2030 at the earliest, HSSC agreed that the document should be further discussed at IRCC. However, the NCWG was invited to consider the need for a new standard for paper chart corrections (such as the XML format for Notices to Mariners) then to be aligned with S-4, if and when appropriate.

The HSSC tasked the NCWG to consider the evolution of Section 200 of S-11 Part A for including S-101 Scheming Guidelines, and the incoming WENDWG Chair⁵ reported that the development of a new Section 300 in S-11 Part A – *Guidelines for other S-100 Products – Phase 1/Route Monitoring (Guidelines for the Coordination and Management of the Development of S-100 Data Services in RHCs)*, was planned to be discussed at IRCC-15 the week after.

After fruitful discussions on the different options available for the future of the HDWG, the HSSC re-acknowledged the international recognition of the IHO Hydrographic Dictionary and the need to keep it as stand-alone IHO publication with the IHO Geospatial Information Registry (GI Registry) as a basis for maintaining its S-100-related component. HSSC thanked the outgoing Chair for his completion of the review of the IHO Hydrographic Dictionary, welcomed the incoming Chair (former Vice-Chair), and tasked the GI Registry Team and the HDWG incoming Chair to prepare the necessary steps to move the WG to a HD Correspondence Group (HDCG).

The representatives of IEC, CIRM, IALA, and ICPC, among others, provided very good updates on matters affecting HSSC. Due to time constraints, presentations from OGC and NATO GMWG Technical Panel were made available on the HSSC-15 webpage for consultation only.

With Ed. 1.0.0 of the S-130 Product Specification available for testing and evaluation, there were already some arguments in favor of commencing a Phase 2, with regard to the production of an IHO authoritative data set (who?, single set?...). The objectives, decided by the IHO 2nd Assembly, and the TORs of the Project Team were reminded to the participants.

⁵ Germany's representative at HSSC-15: Mr Jens Schröder-Fürstenberg.

The Maritime Autonomous Surface Ships (MASS) Navigation Project Team delivered to HSSC a very comprehensive report identifying the regional situation with regard to MASS issues and requirements, as well as an S-100 gap analysis. The MASS Project Team was invited to co-operate with the IALA MASS Task Force and the IMO Joint MSC/FAL/LEG Working Group on MASS. For this purposes, the mandate of the Project Team was extended for one year, prior to the possible establishment of a WG, to be considered in 2024.

All Stakeholders and industry partners present delivered enlightening presentations in relation to HSSC activities, and S-100 in particular. Most of their recommendations and possible key risk mitigation measures were captured in the list of decisions and actions since they are critical to ensure a smooth implementation of the S-100 eco-system. All Member States are invited to consult these presentations on the HSSC-15 webpage (IHO Stakeholders' Open Session in particular) for getting the full picture.

The Committee welcomed the confirmation from Japan for its offer to host HSSC-16 in Tokyo, in May 2024. The offers by Norway for hosting HSSC-17 in 2025, and Poland for HSSC-18 in 2026 were also welcomed.

HSSC re-elected Mr Magnus Wallhagen (Sweden) and Ms Nathalie Leidinger (France) as Chair and Vice-Chair of the HSSC by acclamation.

At the end of the meeting, the Chair thanked Director Abri Kampfer, HSSC Secretary, for his last 6 years at the helm of HSSC for the IHO Secretariat, as well as Traficom for their seamless support in hosting the meeting.



Participants in HSSC-15