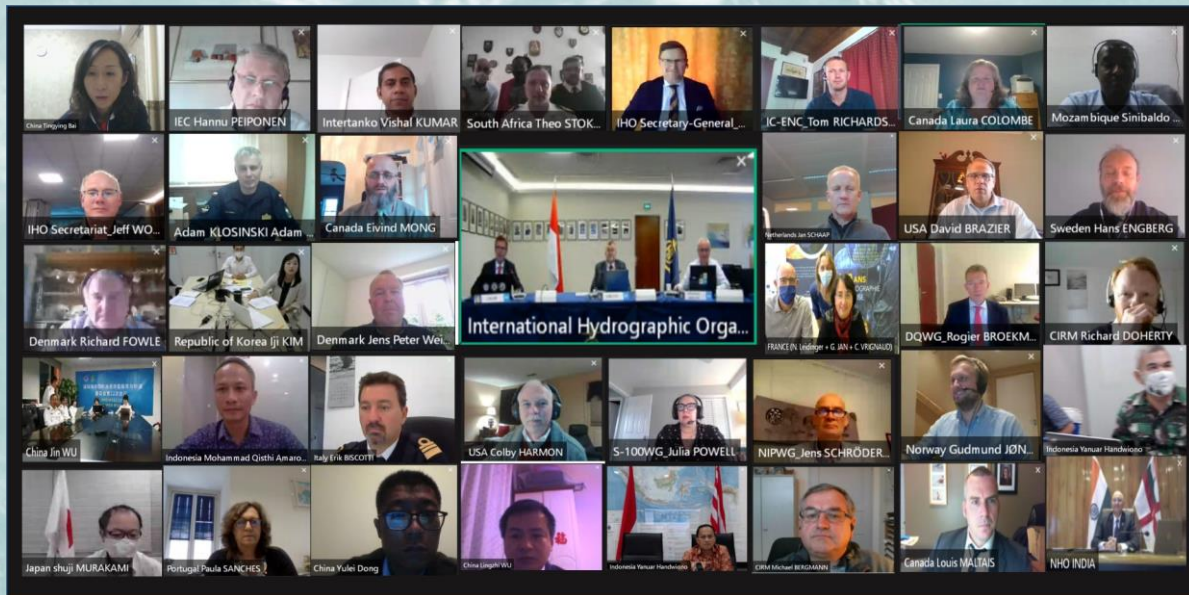


12TH MEETING OF THE HYDROGRAPHIC SERVICES AND STANDARDS COMMITTEE (HSSC-12)

Contribution to the IHO Work Programme 2020

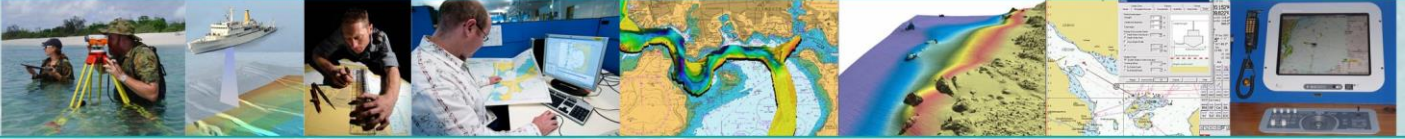
Task 2.1.1	Organize, prepare, and report annual meetings of HSSC
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The 12th meeting of the Hydrographic Services and Standards Committee (HSSC) was held in a virtual format on 20 and 21 October 2020. The meeting was chaired by the HSSC Acting Chair, Mr Magnus Wallhagen (Sweden) and attended by 109 registered participants from 34 Member States and 5 Observing Organizations. The IHO Secretariat was represented by Secretary-General, Dr Mathias Jonas, Director Abri Kampfer (HSSC Secretary), Assistant Directors Yves Guillam (HSSC Assistant Secretary), Yong Baek and Technical Standards Support Officer Jeff Wootton.



Some of the participants of the 12th Hydrographic Services and Standards Meeting.

The HSSC Chair invited the Chairs of the HSSC Working Groups and Project Teams to provide their reports with special emphasis on the key updates to be made at the 2nd Session of the Assembly in November. The S-100WG Chair reported on new documents under development which are essential in the development of the S-100 Implementation Road Map. This includes in particular the “Interoperability Specification” for S-100 based navigation systems (S-98). The Committee noted the progress made in the development of Ed. 1.0.0 of S-98 with the aim to submit it for endorsement in 2021 and agreed on the proposed



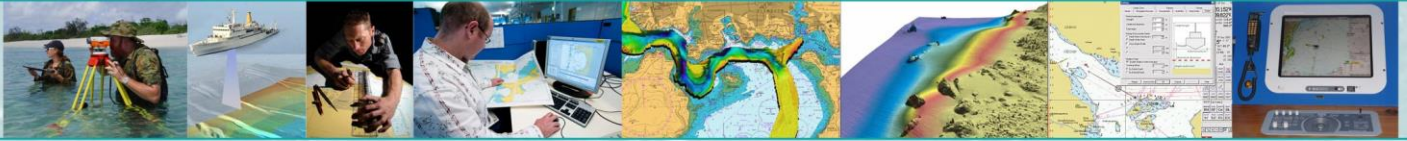
incremental approach for additional PS currently excluded. The publication of Ed. 1.1.0 of S-97 - *IHO Guidelines for Creating S-100 Product Specifications* Reports in June 2020 was noted. To ensure alignment of the operational version of S-101, it was agreed to delay the publication of S-100 Edition 5.0.0 until 2022 and HSSC WGs were tasked to consider aligning all product specifications, with an initial priority list (S-101, S-102, S-104, S-111, S-122, S-123, S-124, S-129), to Edition 5.0.0 by 2023. HSSC noted the progress made on the development of S-100 Test Data Set and allocated S-164 number for the S-100 equivalent of S-64 - *IHO Test Data Sets for ECDIS*.

HSSC agreed on the Dual-Fuel Concept principles (*Essential Principles of Operation*) as presented by the S-100WG Chair and tasked S-100WG/S-101PT to liaise with Stakeholders to prepare a governance document that formalizes the guiding principles of Dual-Fuel Concept for incorporation into the S-100 Implementation Road Map. There was general agreement that the revision of some IHO Resolutions is an important driver for the effective implementation of S-100. Thus when the operational implementation of S-100 becomes mature enough, proposed amendments to the Resolutions eventually complemented by other new Resolutions (such as WEND100) will be submitted to the Council for endorsement as appropriate, and for subsequent approval by Member States.

The Chair of the ENCWG reported on the finalization of the guidance on producing and maintaining High Density ENC (HD ENC) and extensions to the S-63 (IHO Data Protection Scheme) required to address cyber security concerns. HSSC further encouraged the ENCWG to pursue the investigations for the possible development of a new Edition of S-63 compliant with IMO cyber security measures and IEC 63154 ED1. The meeting also approved the proposal from ENCWG to develop a new Edition of S-58, ENC Validation Checks. In order to avoid the inflation of stand-alone and non-maintained informative papers, such as the one dealing with "ENC Generalization Over-Scaling and Safety Checking Functions in ECDIS", the ENCWG was encouraged to consider the incorporation of some sections in various existing IHO publications.

The NIPWG Chair reported on the product specifications and publications under remit of the NIPWG and the effort that will be required to align with the latest version of S-100. The Marine Harbour Infrastructure product specification is currently the last product specification, which needs to be developed in close liaison with the International Harbour Master Association and with the International PortCDM Council. The Committee agreed on the allocation of S-131 to the Marine Harbour Infrastructure Product Specification.

The NCWG Chair reported on the status of IHO publications under remit of the NCWG. Proposed amendments to S-4 were endorsed. He also highlighted the recommendations and options compiled in the final report on the "Future of the Nautical Paper Chart". The Committee supported the NCWG proposal that there is no need to add a new work item in the NCWG Work Plan to develop a separate specification for simplified or back-up nautical charts at this time. The NCWG was tasked to add a work item in its Work Plan to develop ways to enable or enhance HOs' ability to produce paper charts or raster chart images



directly from S-101. HSSC agreed to provide some recommendations to IRCC from the report on the INT chart concept and ENC Schemes.

The Committee approved the completion of the task on the conditional visualization of quality of bathymetric data as reported by the Chair of the DQWG and supported the transfer of the outcome and recommendations to the relevant workgroups for their consideration. The Committee noted the publication of S-67 Ed.1.0.0 Mariners' Guide to Accuracy of Depth Information in ENCs and invited Member States to consider the possibility of translation of the publication.

A report was also provided on the activities of the Hydrographic Survey Project Team (HSPT) and the Committee commended the HSPT for the excellent work done to achieve the publication of Edition 6.0.0 of S-44, IHO Standards for Hydrographic Survey. It approved the establishment of a new Working Group, the Hydrographic Surveys WG, under the proposed TORs. The HSPT will be disbanded when the WG is established. The IHO Secretariat will call for Membership and Office Bearers through an IHO Circular Letter.

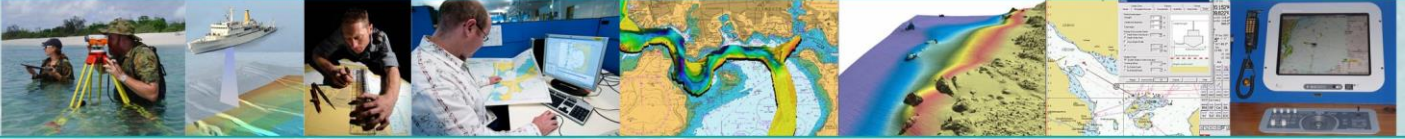
The Chair of the Tides - Water Level and Current Working Group (TWCWG) reported on the product specifications and publications under remit of the TWCWG and paid tribute to the memory of Dr Kurt Hess (US), an active TWCWG Member, who passed away in June 2020. HSSC approved the target for S-104, Water Level Information.

The Committee supported the principle proposed by the Hydrographic Dictionary Work Group (HDWG) of maintaining the Hydrographic Dictionary in its present encyclopaedic structure rather than downgrading it to a simpler glossary and commended Ingenieur general (Reserve) Jean Laporte (FR), out-going Chair of the HDWG, for his dedication and commitment.

The Advisory Board on Law of the Sea (ABLOS) Chair provided a report on the activities of ABLOS. The Committee commended the ABLOS Chair and the Board for their report and approved the continuation of their work as planned.

The Committee noted the informative report of the representative of the International Electro Technical Commission (IEC). The typical time line required to produce a major new revision of an IEC standard, which includes Introduction of S-101 and S-100 into IEC 61174 ECDIS standard was noted. The Committee further noted updates on Data cyber security requirements for navigation equipment (IEC 63154), S-421: Route Plan Exchange based on S-100 (IEC 63173-1) and Secure exchange and communication of S-100 based products (SECOM) (IEC 63173-2).

Presentation on the activities of the Comité International Radio-Maritime (CIRM) was provided and the Committee noted the CIRM presentation, proposals and recommendations with regard to the transition to S-101 ENCs. It further welcomed the proposal made by CIRM to invite ECDIS OEMs that are not active within IHO to collaborate with IHO through CIRM.



The Committee welcomed the election of Mr Magnus Wallhagen (Sweden) as Chair. No nomination was received for the position of Vice-Chair and it was agreed to keep the nomination call open and to proceed by correspondence for the election of Vice Chair of HSSC as soon as one or more nominations are received by the Secretariat

The Committee welcomed the confirmation from Indonesia for its offer to host HSSC-13 in Den Pasar, Bali, Indonesia from 24 to 28 May 2021, possibility for hybrid meeting to be confirmed, and possible postponement of HSSC13 to November 2021. The confirmation by Finland, for hosting HSSC-14 in Helsinki, in May 2022 was noted.