

## COMBINED 7<sup>TH</sup> MEETING OF THE ENC WORKING GROUP (ENCWG) AND 9<sup>TH</sup> MEETING OF THE S-101 PROJECT TEAM (S-101PT) Wellington, New Zealand, 21-25 November

### Contribution to the IHO Work Programme 2022

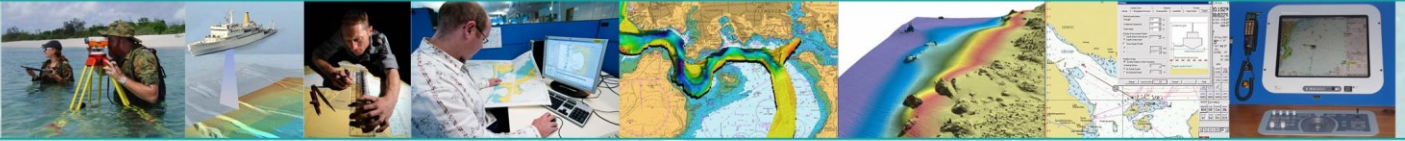
Task 2.1.2.2 & 2.1.2.11	Organize, prepare and report meetings of the ENCWG and S-101 PT
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The 7<sup>th</sup> meeting of the ENC Working Group (ENCWG7) combined with the 9<sup>th</sup> meeting of the S-101 Project Team (S-101PT9) was held in Wellington, New Zealand from 21 to 25 November 2022 in a hybrid format.

The ENCWG sessions of the meeting were chaired by Mr Thomas Mellor (United Kingdom) and the S-101PT sessions of the meeting were chaired by Mr Thomas Richardson (IC-ENC, United Kingdom). 87 delegates from 30 Member States (Australia, Belgium, Brazil, Chile, China, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, India, Indonesia, Italy, Japan, Netherlands, New Zealand, Nigeria, Norway, Portugal, Republic of Korea, South Africa, Spain, Sri Lanka, Sweden, Turkiye, United Arab Emirates, United Kingdom and USA); 2 External Liaisons (International Electrotechnical Commission (IEC) and Inland ENC Harmonization Group (IENC)); and 17 Expert Contributors attended the meeting. The IHO Secretariat was represented by Technical Standards Support Officer Jeff Wootton, who acted as Secretary for the combined meeting; and Assistant Director Yong Baek (remote participation).

The combined meeting commenced with an opening address by the Hydrographer of New Zealand, Mr Adam Greenland, followed by a traditional Māori welcome by the staff of Toitū Te Whenua Land Information New Zealand. The programme for the combined meeting was structured as such that the first half of the meeting covered the ENCWG Agenda (days 1 and 2), followed by the S-101PT Agenda (days 3 and 4) and any residual items on day 5.

The ENCWG Chair introduced the major items to be discussed at the ENCWG portion of the meeting which were aligned with the Decisions and Actions from the HSSC14 meeting (May 2022), including amendment of the ENCWG Terms of Reference; the development of a New Edition of S-64 - *IHO Test Data Sets for ECDIS*; the merging of S-66 - *Facts about Electronic Charts and Carriage Requirements* and S-67 - *Mariners' Guide to Accuracy of Depth Information in Electronic Navigational Charts (ENC)* into a single IHO Publication, also aiming to incorporate ENC and ECDIS related information papers; and development of IHO ECDIS Cyber Security Guideline. Additional discussions focused on the development of a



Revision of S-65 Annex A - *High Density (HD) ENC Production and Maintenance Guidance*; standardization for the automation of the production of HDENC bathymetry; proposed changes to S-58 – *ENC Validation Checks*; ENC conversion (S-57 to S-101 and S-101 to S-57) and reports on the results of data conversion tests by Member States; and clarifications to S-52 Annex A - *IHO ECDIS Presentation Library*.

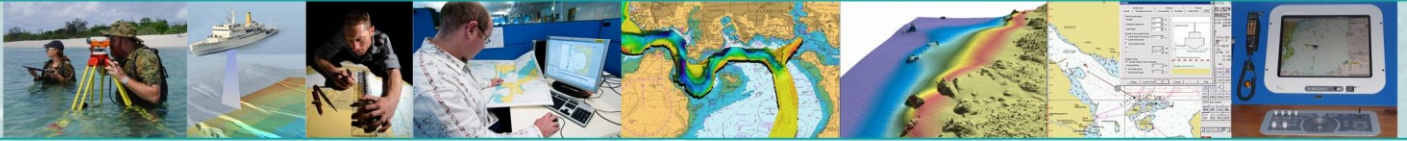
The structure of the document resulting from the merging of IHO Publications S-66 and S-67 was agreed and it was further agreed that the merged document would be designated as IHO Publication S-67 - *Mariners' Guide to the Use of ENC Data in ECDIS*. It was further agreed that the proposed IHO ECDIS Cyber Security Guideline would be included in this Publication.

The Working Group, both in session and during a break-out session, discussed the development of Edition 1.1.0 of S-65 Annex B – *S-57 ENC to S-101 Conversion Guidance* to align to the pending Edition 1.1.0 of S-101; and the commencement of the development of guidance for the conversion of S-101 ENCs to S-57. It was agreed that the S-101 to S-57 Conversion Guidance document would be designated as IHO Publication S-65 Annex C; and the document would be developed under the remit of the S-57 to S-101 Conversion Sub-Group, which is to be renamed the ENC Conversion Sub-Group.

Reports were presented by the IHO-Singapore Laboratory and the S-57 Sub-Group; and update reports provided on S-62 - *List of IHO Data Producer Codes* and S-63 - *IHO Data Protection Scheme*. Several proposals relating to the S-57 framework and data encoding were discussed; and an issue raised by the IMO in regard to references to IHO Publication S-61 - *Product Specification for Raster Navigational Charts (RNC)* included in the drafting of the new IMO Resolution MSC. 530(106) - *ECDIS Performance Standards* was resolved by the removal of redundant text. IHO Publication S-61, Annex A will be updated to refer to the Appendix 7 of IMO Resolution MSC. 530(106).

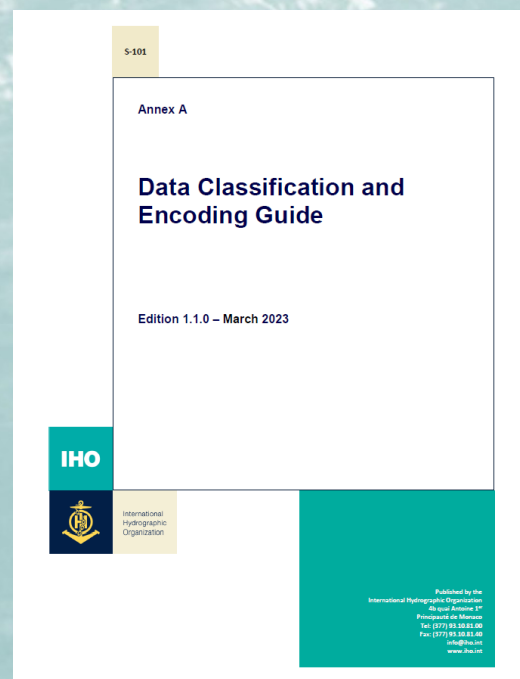
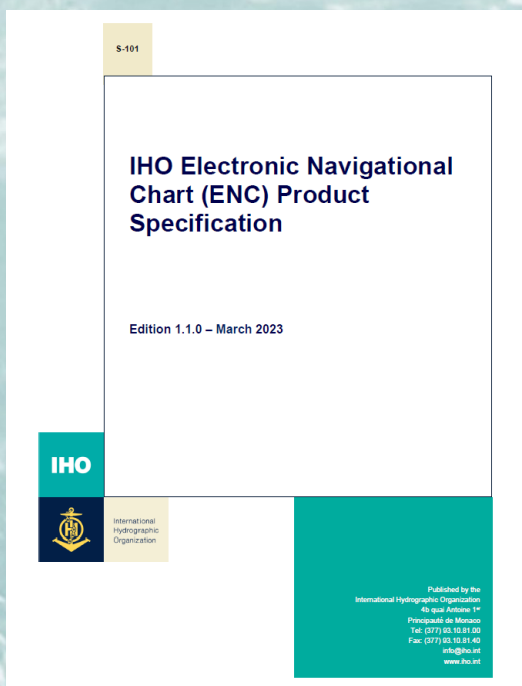


*ENCWG7 in person participants*

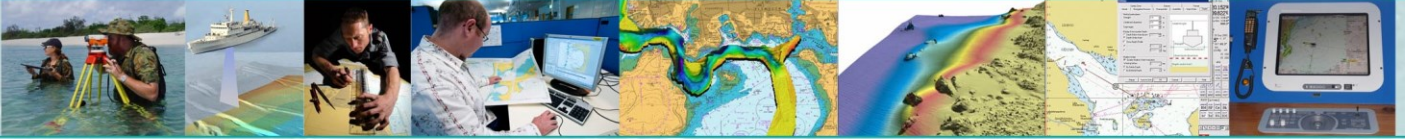


The S-101PT Chair commenced the S-101PT portion of the meeting, stating that the principle outcome of the meeting was to achieve Project Team approval of the Product Specification Main document and Annex A – *Data Classification and Encoding Guide* (DCEG) for Edition 1.1.0 of S-101 for submission for approval of the S-100WG at S-100WG7 (December 2022). This is considered to be a key milestone in achieving the timeline for S-101 development as outlined in the S-100 Roadmap. Changes to S-101 Annex A were discussed and approved as part of the delivery of the S-101 DCEG Sub-Group report; and an extended editing session was conducted whereby the S-101 Main document review comments submitted by Project Team members were discussed, adjudicated and applied to the document.

Update reports were presented from the S-101 Portrayal, Data Validation Checks, Dataset Load/Unload and Scales, and Test Dataset Sub-Groups. Significant progress was reported in all areas of S-101 development, with the development of the S-101 Edition 1.1.0 Feature and Portrayal Catalogues to be commenced on approval of the S-101 Edition 1.1.0 Main document and DCEG by the S-100WG. It is intended to publish S-101 Edition 1.1.0 in March 2023.



Several proposals for amending or extending S-101 were submitted to the meeting, for inclusion in the next Edition of S-101. The meeting agreed that at least one further Edition (1.2.0) of S-101 for the purposes of implementation and testing would be required before an operational Edition (2.0.0) is published; and significant discussion took place on the steps required to achieve operational release of S-101 in line with the S-100 Roadmap, with the subsequent decision to hold two S-101 Project Team face to face meetings during 2023.



The next meeting of the S-101PT (S-101PT10) will be held from 13-15 June 2023 in Brest, France. The next meeting of the ENCWG (ENCWG8) will be held from 25-29 September 2023 in Lombok, Indonesia, in conjunction with S-101PT11.



*S-101PT9 in person participants*