

20th Meeting of the Data Quality Working Group (DQWG)

Video-teleconference (VTC), 11 – 13 March 2025

Contribution to the IHO Work Programme 2025

- Task 3.4.1 Organize, prepare and report meetings of DQWG.
- Task 2.4.8 & 2.4.9 Maintain S-67 – Mariner’s Guide to Accuracy of Depth Information in ENCs.
- Task 2.8.6 Ensure that data quality aspects are addressed in an appropriate and harmonized way for all relevant standards.

High level summary

- DQWG committed to more proactiveness in collecting feedback from the Product Specification (PS) developers and relevant HSSC Working Groups to provide more relevant Data Quality recommendations and guidelines within the S-100 Ecosystem.
- A similar approach was adopted to discuss the inclusion of specification/guidance on the generalization of CATZOC/Quality of Bathymetric Data (QoBD) information through smaller scale charts (paper and ENC).
- Some potential ways forward to improve the overview of surveyed areas coverage through CATZOC data flux provided by the RENCs were investigated, and potential contributions to define relevant strategic indicators for the next IHO Strategic Plan for 2027-2032 were identified.

Attendance

The 20th meeting of the Data Quality Working Group (DQWG) was held as a remote video-teleconference (VTC) event from the IHO Secretariat, Monaco, from 11 to 13 March.

The meeting was chaired by Mr Lingzhi Wu (China). Twenty-six registered delegates representing 14 Member States (Brazil, China, Denmark, Finland, France, India, Indonesia, IR of Iran, Italy, Netherlands, Norway, Portugal, United Kingdom and United States), the RENCs (IC-ENC, PRIMAR) and two expert contributors (Portolan Sciences, SevenCs) attended the meeting. The IHO Secretariat was represented by Assistant Director Eric Langlois and IHO GI Registry Manager Jeff Wootton.

Due to the absence of the DQWG Secretary during the meeting, the IHO Secretariat acted as DQWG20 Secretary for the duration of the meeting.

Key Outputs

- **Cross check of Data Quality Chapter of S-100 based Product Specifications**
 - The discussions, initiated by comprehensive presentations from **DQWG, NIPWG and TWCWG Chairs**, led to confirm the need for DQWG to be more pro-active in collecting data quality related feedback, experiences and recommendations from Product Specification Developers.
 - **DQWG** agreed to organize a workshop back-to-back with DQWG21, inviting all S-1xx PS developers to participate in both IHO and, potentially, IALA (S-2xx) Product Specifications. This workshop will be used as a bottom-up approach to share some use case

experience to better define the relationship between validation and DQ checks and identify some potential guidelines improvement.

- While a new edition 1.2 is being reported to the next HSSC Meeting (HSSC17 - May 2025), the development of the next edition of *Data Quality Recommended Template* was delegated to the **DQWG Data Quality Chapter cross-check SubWG**. This next edition will include a new section related to DQ evaluation of S-100 Product Specifications in the DQ template.

- **Guidance to HOs on DQ aspects**

- FR and FUGRO, as members of the **Feature Catalogue SubWG** of the **DQWG**, reported on their use of automated S-101 Feature Catalogue cross-check scripts for the review of Feature Catalogues of S-100 based PSs.
- **DQWG** recommends that the S-1xx PS developers should complete the cross-check prior to the release of an operational edition of a PS.

- **Statistical Report on CATZOC/QoBD Values**

- **PRIMAR, IC-ENC** and **China** provided comprehensive and consistent analysis of CATZOC information assessment, which could potentially provide a clear overview of areas where CATZOC data are not provided by IHO Member States. The IHO Secretariat will liaise with the RENCs to discuss technical aspects on these matters.
- **DQWG** agreed on the importance of CATZOC assessment within S-57 and S-101 products. Consistent encoding of CATZOC in S-57 ENCs is essential to properly implement alert/alarm functionality and route checks in S-100 ECDIS. The new S-100 Performance Standard requires that accuracy information will be taken into account for the pre-mentioned ECDIS functions. This requirement applies to S-57 and S-101 ENCs in S-100 ECDIS.
- Based on the newly endorsed S-68 Edition 2.0.0, **DQWG** will engage with the relevant Working Groups (i.e. NCWG and S-101PT) to discuss the inclusion of specification/guidance on the generalization of CATZOC/QoBD information through smaller scale charts in S-4 and/or S-101.
- From S-68 Edition 2.0.0 onwards, **DQWG** will include the feedback from other HSSC Working Groups (i.e. HSWG) in its S-68 review cycle.

- **Guidelines for the Assignment of CATZOC/QoBD Capability of Crowdsourced Bathymetry (CSB) Data**

- **DQWG** noted the comprehensive report and recommendations from the **Data Quality Crowd Sourced Bathymetry CATZOC subWG**, in particular the comment from the IHO Secretariat not to use the 'ZOC U' category but to use 'ZOC D' for the worse case scenarios when assessing CSB dataset.

- **Revision of S-100 Part 4c and S-97 part C**

- **DQWG** agreed to submit some amendments to S-100 Part 4c and S-97 Part C to the **S-100 WG**.
- **DQWG** will evaluate the influence of the new ISO 19157-1-2023 on S-100 Part 4c and S-97 Part C and propose further amendments to S-100 Part 4c and S-97 Part C, if relevant.

- **Data quality input to IHO Strategic Plan (2027-2032)**

- Current IHO SPI 1.2.2 (surveyed area coverage) is compiled from the CATZOC data received from the RENCs and requires substantial manual processing. The **IHO Secretariat** will liaise with the **RENCS** to discuss potential technical solutions to reduce the current processing burden.
- The **RENCS** supported the proposal made by **the IHO Secretariat** to consider their CATZOC statistic assessment data as potential input data for future IHO Strategic Performance Indicators.

- **Any other business**

- The DQWG Vice-Chair position is still vacant.
- A call to join the different DQWG thematic subWGs will be issued to DQWG Members.
- To revive the WG dynamics after two consecutive virtual meetings, the next DQWG meeting (DQWG21) will be hosted by the IHO Secretariat in Monaco in February 2026 (dates to be determined).

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