**DQWG14-06A**

## Paper for Consideration by Data Quality Working Group

## Development of a new guidance document for HO’s

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| ***Submitted by:*** | DQWG Chair |
| ***Executive Summary:*** | Provide guidance on data quality aspects to hydrographic offices, in particular to ensure harmonized implementation. |
| ***Related Documents:*** | S-101 Data Classification and Encoding Guide\_1.0.0\_Clean\_20181022, DQWG11-04.1A, national methodologies from survey to CATZOC |
| ***Related Projects:*** | None |

## Introduction / Background

The objective of the DQWG is to ensure that the data quality aspects are addressed in an appropriate and harmonized way for all S-100 based product specifications. The DQWG should provide guidance on data quality aspects to hydrographic offices, in particular to ensure harmonized implementation.[[1]](#footnote-1)

## Analysis/Discussion

The DQWG is an advisory Working Group with a transversal role to other HSSC-Working Groups. The HSSC requests input, guidance and coordination effort from the DQWG to ensure that data quality aspects will be harmonized for all S-100 based product specifications. Additionally the DQWG should provide guidance on data quality aspects to hydrographic offices, in particular to ensure harmonized implementation.

This guidance is limited to S-1xx based product specifications. Current S-57 standards are the responsibility of the ENCWG. Data Quality related to paper chart production are the responsibility of the NCWG. However, when in future hydrographic offices are using a single database to produce paper charts, S-57 based ENC’s and S-101 based ENC’s, the Data Quality aspects need to be harmonized. The period over which paper, S-57 and S-101 products are produced from a single database, may exceed more than 10 years from now.

IHO Electronic Navigational Chart Product Specification, IHO Publication S-101, Annex A, Data Classification and Encoding Guide, Version 1.0.0 – December 2018, Chapter 3 describes Metadata Features. The following items are related to Data Quality:

* par. 3.1 Horizontal Uncertainty;
* par 3.2 Vertical Uncertainty;
* par 3.3 Quality of Non-Bathymetric Data;
* par 3.7 Quality of Bathymetric Data;
* par 3.10 Quality of Survey;
* par 24.5 Spatial Quality.

The Metadata Feature “Quality of Bathymetric Data” is related to the following S-101 Features:

* par 3.8 Sounding Datum;
* par 3.10 Quality of Survey;
* par 11.4 Dredged Area;
* par 11.5 Swept Area;
* par 11.6 Depth Contour;
* par 11.7 Depth Area;
* par 11.9 Areas with inadequate depth information;
* par 11.9.3. Depth discontinuities between surveys;
* par 11.10 Unsurveyed Areas;
* par 12.3 Sandwaves;
* par 13.4 Rocks;
* par 13.5 Wrecks;
* par 13.6 Obstructions;
* par 13.7 Foul ground;
* par 28.22 uncertainty variable factor.

DQWG11-04.1A is a graphical example providing guidance what attribute values should be used by hydrographic offices for Quality of Bathymetric Data. This document may need updating/improving before it can be used by Hydrographic Offices.

## Conclusions

None.

## Recommendations

A draft guidance document (DQWG14-06B, HOW TO PROVIDE MEANINGFUL QUALITY OF BATHYMETRIC DATA INFORMATION IN S-101 ENCs) is available for discussion by DQWG. Based on national methodologies, additional text needs to be added to present a “best practise” how to make the translation from a survey to the Quality of Bathymetric Data value. Upon agreement of the decision tree, a visual version is to be included. DQWG should discuss the aggregation method applied by their HO.

## Justification and Impacts

Impact upon other standards than S-101 to be discussed.

## Action Required of Data Quality Working Group

The DQWG is invited to:

a. note this report;

b. discuss the recommendations;

c. take the appropriate action;

d. advice S-100WG/S-101PT accordingly.

1. DQWG Terms of Reference, HSSC-9 (Ottawa, Canada) [↑](#footnote-ref-1)