Paper for Consideration by ENCWG

Guidance for the use of M_QUAL objects over unsurveyed areas

Submitted by:	Data Quality Working Group (DQWG)
Executive Summary:	The purpose of this paper is to add guidance for encoding M_QUAL objects over unsurveyed areas. In addition, this paper requests an encoding bulletin and a change to the Use of the Object Catalog.
Related Documents:	EDITION 4.1.0 – JANUARY 2018 Use of the Object Catalogue for ENC S-58 Edition 6.0.0, May 2017
Related Projects:	S-57

Introduction / Background

The DQWG's terms of reference as approved by HSSC at their 9th meeting states that DQWG will give guidance for current data quality when needed. As a result of this the working group invited member states to provide current practices for charting M_QUAL and CATZOC encoding in their ENC suite. The result was that many of the Members States provided this information for the 13th meeting of the DQWG in Monaco. Each member presented their current CATZOC practices and issues.

Analysis/Discussion

During the meeting it was apparent that most HOs need guidance on how to chart M_QUAL objects over unsurveyed areas. The Use of the Object Catalog does not give specific guidance on how to chart M_QUAL over unsurveyed areas. S-58 gives guidance in the form of two validation checks. Check 549 asks if M_QUAL is covering any depth areas and dredged areas. Check 550 asks if any unsurveyed areas with bathymetric features in it are covered by an M_QUAL object. The inverse of these two checks essentially provide guidance that an M_QUAL object is not required to be charted over and unsurveyed area if that unsurveyed area has no bathymetric features in it. This charting scenario was tested during the meeting by France and was shown to produce no errors or critical errors in validation software. The display of an unsurveyed area without a M_QUAL object that would have a CATZOC of U or D is considerably more favorable. The area displayed would be considerably less cluttered.

Conclusions

M_QUAL objects are not required over unsurveyed areas with no bathymetric features within the entire object.

Recommendations

The DQWG recommends that ENCWG agree with the conclusion and add the following paragraph in the remarks section of section 2.2.3.1 Quality of Bathymetric Data in the Use of the Object Catalog:

- When an **UNSARE** area is used and within the entirety of that UNSARE no bathymetric features are encoded a **M_QUAL** is not required.

The DQWG also recommends in a coding bulletin be released by the ENC working group.

Action Required of ENCWG

- note and discuss on this paper
- agree with the recommendations