

11th TSMAD MEETING

10 – 12 November 2004, IHB, Monaco

PROPOSAL FOR ADDITION TO AN EXISTING WORK ITEM

Quality of Data (M_QUAL)

Submitted by Australia 20 Oct 2004

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| Executive Summary: | It is proposed that guidance be provided in an ENC Encoding Bulletin and or FAQs about encoding M-QUAL for Navigational purpose 1 and 2 ENCs. |
| Actions to be taken: | Consider Australia's suggestion at TSMAD11 meeting in November and agree to proposed method of portraying such areas. Final wording to be discussed and decided when review of the ENC Product Specifications is carried out in due course. |
| Related Documents: | S-57 Object and Attribute Catalogues Edition 3.1 S-57 (Ed 3.1) Appendix B.1 Product Specification for ENC, Edition 2.0 S-57 Appendix B.1 Annex A – Use of the Object catalogue for ENC, Edition 2.1, section 2.2. |

1. Introduction / Scope

Currently there is no guidance nor specifications specifically relating to the smaller scale ENCs of navigational purposes 1 and 2. The ENC Product Spec lists **M_QUAL** as mandatory for areas containing bathymetric data in all ENCs but its practical use for navigational purposes 1 and 2 is questioned.

2. Analysis / Discussion

Australia is compiling a series of ENC cells based on the INT series 1:3 500 00 and 1: 10 M paper charts that will be Navigational Purpose 1 ENCs. These are route planning ENCs and unlikely to be used for actual navigation.

Adopting the **M_QUAL** from the larger scale ENCs at navigational purpose 3 and 4 cells is far too detailed in many of the Australian waters and severely generalising the information doesn't provide a true indication of the quality of the bathymetric data.

Consideration has been given to only providing **M_QUAL** for the areas outside of the areas covered by navigational purposes 3 and 4 ENCs, but the current ENC Product Specification requires at least CATZOC = 6 (data not assessed) to be used for such areas.

It is understood that some sophisticated ECDIS' allow the mariner to prepare a proposed route and then run it through a test routine that checks for various dangers to that particular vessel (underkeel clearance, air draught, vessel width, etc) and presumably warn of a CATZOC which would concern the mariner for a particular area. As an example he may prefer to remain within CATZOC 1-3 while navigating through reef areas. Such tools are useful in route planning but are they really helpful for navigational purpose 1 and 2 ENCs? If the routes were also transferred to the ENC on which they

would actually navigate, the information available is more detailed and will present a more accurate indication of the dangers and restrictions likely to influence his vessel.

It is therefore suggested that the encoding of values 1-5 for CATZOC for navigational purpose 1 and 2 has limited use for the mariner.

It is therefore recommended that the encoding of **M_QUAL** for navigational purposes 1 and 2 NOT be mandatory for areas containing bathymetric data.

An alternative for S-57 E4.0 would be to introduce another value for CATZOC such as:

7: no indication provided on this navigational purpose, see navigational purposes 1-4 ENCs for more information.

However this alternative is overly complex and is not supported by the AHS.

It is therefore proposed that for S-57 E4.0, the ENC Product Specification be amended to have **M_QUAL** mandatory only for navigational purposes 3 to 6 inclusive. HOs would then have the flexibility to provide **M_QUAL** for navigational purposes 1 and 2 if they considered it of use to the mariners and this will depend on the compilation scale of these ENCs.

In the short term it is recommended that an ENC Encoding Bulletin be issued supporting this proposal. Proposed wording follows in Annex A. (The actual wording for the Use of the Object Catalogue for S-57 E4.0 may alter depending on the format adopted for the final specification.)

8. Target Completion Date

To be determined but it is suggested that the ENC Encoding Bulletin be issued after TSMAD11 and that the revised mandatory requirements be amended in S-57 E4.0 ENC Product Specification when released in late 2006.

10. Action Required

Discuss proposals at TSMAD meeting in November.

Proposed wording for ENC Encoding Bulletin:

Existing wording from the Use of the Object Catalogue, section 2.2.3 is:

For the mariner, **M_QUAL** provides the most useful information. Therefore, the use of **M_QUAL** is mandatory for areas containing depth data or bathymetry.

Proposed wording:

For the mariner, **M_QUAL** provides ~~the most~~ useful information when **CATZOC** values 1-5 are encoded. It is considered that such information is most valuable on ENCs that will be used for actual navigation (as against ENCs used for route planning). Therefore, the use of **M_QUAL** is only mandatory for areas containing depth data or bathymetry for navigational purposes 3 to 6 inclusive. HOs may encode **M_QUAL** for navigational purposes 1 and 2 if considered useful to the mariner. (*additions in blue*).

Add to 2.2.3.1 CATZOC (mandatory only for navigational purposes 3-6)