Paper for Consideration by ENC WG

CATZOC value 6: zone of confidence U (data not assessed)

Submitted by:	ENCWG Chairman
Executive Summary:	Hydrographic Offices are reminded that to enable Mariners to plan effective passages using ECDIS they are required to encode within the ENC meaningful values of CATZOC
Related Documents:	S-57 UOC

Introduction / Background

Over the last two years I have been fortunate enough to host the UKHO 'Living with ECDIS seminar', aimed at Mariners, shipping companies and regulators/auditors. The seminars are designed to help attendees understand the legal requirements and maintenance issues surrounding ECDIS to enable them to remain compliant and make the most of the system. I have visited over 15 different countries and talked to hundreds of ECDIS end users. The seminars are extremely popular and always generate lots of questions from the audience. One of the main topics raised at all the seminars I have hosted is 'what should the Mariner do when the ENC CATZOC value is U?'

Analysis/Discussion

For Mariners adopting digital navigation and sailing on vessels completely paperless the encoding of the ENC objet M_QUAL with a CATZOC value 6: zone of confidence U (data not assessed) gives no information to be able to compute a meaningful Under Keel Clearance (UKC). Without a value of CATZOC that can be used the Mariner is forced to adopt a worst case scenario and insist upon a large UKC rendering some ports out of bounds. Port State control officers are requiring evidence Navigating Officers have taken the value of CATZOC into account when planning routes, this obviously cannot be achieved if there is no information within the ENC. In many cases when the CATZOC value encoded within the ENC is U the corresponding paper chart source diagram from the same charting authority will carry more information. This has a cost implication for the shipping industry with many companies being forced to buy the paper chart to stop a vessel either being detained or getting a deficiency when inspected.

The current guidance in the S-57 Use of the Object Catalogue state;

2.2.3.1 Quality of bathymetric data

'Wherever possible, meaningful and useful values of CATZOC should be used, i.e. values other than CATZOC = 6 (data not assessed), for areas of bathymetry.'

It can be seen from the discussion above that when an HO fails to encode a meaningful value of CATZOC the knock on effects for the end users are significant.

At present an HO can encode the M_QUAL attribute with 6 different values of CATZOC.

1 : zone of confidence A1
2 : zone of confidence A2
3 : zone of confidence B
4 : zone of confidence C
5 : zone of confidence D
6 : zone of confidence U (data not assessed)

One possible solution to this issue could be the removal of the enumeration value 6 from the list of zones of confidence. This would have to be a phased approach to allow HOs enough time to comply with a change of this

magnitude. Previous papers submitted to TSMAD have advocated making CATZOC mandatory only for navigational purposes 3 to 6.

The other option is to issue a strongly worded encoding bulletin to try and encourage HOs to populate CATZOC with meaningful values

Conclusions

Changes to S-57 are not a welcome development therefore as data providers we need to address this issue without the requirement to change the underlying standard. It is incumbent on all of us to use our best endeavours to create ENC data that not only meets the minimum ENC specification in S-57 but exceeds it. ENCs allow us to add significant value for the end user when switching from traditional paper chart navigation to digital navigation using ECDIS.

Recommendations

All HOs are urged to review their current ENC production processes and make changes where necessary to encode meaningful values of CATZOC.

Action Required of ENC WG

The ENC WG is invited to:

a. Discuss methods for ensuring CATZOC is populated with meaningful values
b. Endorse the proposal to issue a new encoding bulletin urging HOs to refrain from capturing CATZOC using value 6: zone of confidence U (data not assessed).