Overlapping data: ECDIS Investigation

WENDWG7 January 2017

Encoding Bulletin issued

▸ WENDWG6 action: Present to ENCWG & NCWG for comment

　◦ Completed at ENCWG (NCWG Chair present) Tokyo, March 2016 – resulted in issue of Encoding Bulletin 60 Clause 2.1.8 Seamless ENC coverage

▸ http://www.iho.int/mtg_docs/enc/enc_prod/S-57EncodingBulletins.htm#EB60

EB60 UOC Clause 2.1.8 Seamless ENC coverage

Clause 2.1.8 of Edition 4.0.0 (June 2014) of the Use of the Object Catalogue for ENC (S-57 Appendix B1, Annex A) provides guidance on the requirements for the provision of seamless display of ENC coverage in ECDIS. Included in this guidance is specification prohibiting the overlapping of data between cells of the same Navigational Purpose.

It has been reported that in addition to the unpredictable performance of ECDIS when cells of the same Navigational Purpose overlap, similar performance issues occur when data having the same compilation scale and within different Navigational Purposes overlap. Such performance issues may potentially reduce mariner confidence in using ECDIS and may impact on safety of navigation.

Data Producers are advised, therefore, to ensure that data within cells having the same compilation scale and different Navigational Purposes does not overlap, in addition to ensuring that data within cells of the same Navigational Purpose does not overlap.

3

Consultation

- WENDWG6 action: WENDWG Chair to seek the view of CIRM on IC-ENC's Testing Overlapping ENCs in ECDIS report

  ◦ CIRM distributed an information pack and questionnaire to their ECDIS Working Group.

  ◦ Five responses (from major organisations) were received

Responses

◦ The results showed that all of the systems loaded and displayed data in a different order

◦ Some had a priority list of criteria that would be followed, incorporating factors such as:

- largest compilation scale,

- navigational purpose,

- issue date,

- order of import to producer code.

Responses

◦ Two of the systems had problems loading the test data

- Couldn't process overlapping data from the same data producer

- Highlighted a missing element in the test data for S-64 as it doesn't include any examples of M_COVR with "no coverage available" – IC-ENC to report to ENCWG (March)

Responses

▸ Most of the systems had already, or had plans to, implement the permanent indication of an 'overlap' to be displayed in accordance with Presentation Library for ECDIS (version 4.0.1)

Responses

◦ Comments on the scale of the issue:

- Do not see it as a big problem, "but can look a bit 'sloppy' "
- Mariner would not have noticed the overlap prior to PL4.0, but following the overlap indicator there may be a future increase in feedback from users
- Impact is only a concern is some geographic regions which are subject to a large number of overlaps (geopolitical)
- Issue should be resolved by HOs

Conclusions

- Each OEM processes overlapping data in a different way

- User comment remains low, but may increase as overlapping data is identified in the ECDIS (new Presentation Library)

- ECDIS's designed on the principle that HO's would not release overlapping ENCs – solve the problem at source.

WENDWG invited to:

1. Note this report
2. Take any action deemed appropriate