Paper for Consideration by 100TSM9

Official vs Unofficial data and producer codes

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Executive Summary:	Existing methods of controlling Data Producer Codes are not effective in ensuring in-service ECDIS correctly distinguish between "official" and "unofficial" data. The introduction of S-1xx provides an opportunity to address this.
Related Documents:	S100TSM9-7.5
Related Projects:	

Introduction / Background

On 29 August 2019, the IHO ENCWG sent a letter to ECDIS OEMs regarding "*Updating IHO S-62 'List of Data Producer Codes' in ECDIS*". The ENCWG advised OEMs that "*The consequence of not keeping IHO S-62 updated in the ECDIS is that ENC data may appear with the unofficial boundary line style even if it has been issued officially by or on the authority of a Government, authorized Hydrographic Office or other relevant government institution.*" Accordingly, the ENCWG stated "*It is strongly recommended ECDIS OEMs and producers of ENC production software keep this list updated at least on an annual basis.*"

Analysis/Discussion

There is a problem applying this recommendation since, while it is relatively easy for ECDIS OEMs to ensure that ECDIS have up to date DPCs at the time of manufacture, applying DPC updates to in-service ECDIS is not straightforward for the following reasons:

- DPCs are not part of the data exchange set distributed to ECDIS users
- There is no requirement in IHO S-64 or IEC 61174 for in-service ECDIS to be able to update DPCs

As a result, many in-service ECDIS remain with the DPCs applied at the time of manufacture during the lifetime of the product. The issue is compounded because, since DPCs are not controlled by version number, it is difficult or impossible for mariners to determine whether the DPCs in an ECDIS are up-to-date.

The outcome is that many in-service ECDIS will contain outdated DPCs and so may incorrectly distinguish between official and unofficial chart data. The original goal of the ENCWG letter is therefore not achieved.

Whilst this status quo might be considered acceptable for S-57 ENCs, the introduction of S-1xx provides an opportunity to address the issue for S-1xx product specifications.

Paper S100TSM9-7.5 queries whether there is a continued requirement for "unofficial" data on ECDIS - this paper does not offer a view on that question. However, if the IHO determines that an S-1xx ECDIS must be capable of loading both "official" and "unofficial" S-1xx data, then a means of distinguishing "official" and "unofficial" data that allows for data producers to be added, removed and change status over time is needed. In particular, such means should take into account the possibility of the IHO making updates to the DPCs after the ECDIS is manufactured.

Conclusions
- The effort and timeline required to address the issue for S-57 ENCs may outweigh the benefits, given the intention to transition to S-1xx product specifications
- If the IHO determines that an S-1xx ECDIS should be capable of loading both "official" and "unofficial" S-1xx data, a reliable means of distinguishing "official" and "unofficial" data should be provided
- Such means should take into account that data producers may be added, removed or change in status while the ECDIS is in service

Action Required of S-100WG TSM

100TSM9 is invited to take this paper into consideration when reviewing the role of DPCs in an S-1xx ECDIS.