

Paper for Consideration by NIPWG

Items to be included into S-128 - Management of up-to-dateness

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Executive Summary:	S-100 concept needs to provide at least same functionality as the current S-52/S-57/S-63 regime provides for the ENC Charts. One remaining gap is "Management of up-to-dateness" originally defined in S-63. Based on a task set by NIPWG-6 this paper explains how S-128 Catalogue of Nautical Products could serve all S-100 based products for the "Management of up-to-dateness".
Related Documents:	S-63 Ed 1.2.0 Jan 2015.
Related Projects:	Any related projects that may impact upon considerations

Introduction / Background

1. Warnings and indication related to the up-to-dateness of the information available are part of essential functionality of an IMO ECDIS. Background reason is needs of: a) crew of the vessel, b) port state inspections, c) vetting inspections and d) flag state inspections to be aware of the state of the up-to-dateness.

2. The crew has an obligation to proof that their electronic material is "up to date for the intended voyage", see SOLAS V, Regulation 27 "*Nautical charts and nautical publications, such as sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage, shall be adequate and up to date*"

3. The IMO member states has an obligation to provide charts and publication and to provide data management arrangement, see SOLAS V, Regulation 9, Clause 2.2 "*to prepare and issue nautical charts, sailing directions, lists of lights, tide tables and other nautical publications, where applicable, satisfying the needs of safe navigation*" and Clause 2.4 "*to provide data management arrangements to support these services*".

4. For current S-52/S-57/S-63 based ECDIS the data management arrangements (i.e. management of up-to-dateness) is provided by S-63, see Clause 6. Data management. In S-63 the key component is a machine-readable file named PRODUCTS.TXT.

5. The PRODUCTS.TXT has typically been created/complied by the RENC which has provided the service for a vessel. As a vessel could be subscriber for multiple RENCs, the PRODUCTS.TXT has included a concept of Full/Partial. Full means that the content is all available in the whole world. Partial means that the content is available only for the chart cells listed within the PRODUCTS.TXT. The ECDIS has been required to compile its internal PRODUCTS.TXT by combining the partials. In case of full, the ECDIS can simply replace the content of the internal PRODUCTS.TXT.

6. The first-tier of "Management of up-to-dateness" is to look if the PRODUCTS.TXT itself is fresh enough (S-63 specify 4 weeks as limit). If not, a standardized warning "*Not up to date*" is available at least in the ENC Update Status Report (Note that some ECDIS systems provide this first-tier information permanently on the display instead of minimum requirement to be available from the on-demand report).

7. The second-tier of "Management of up-to-dateness" is to compare holdings (i.e. individual chart cells) against the up-to-date information provided by the PRODUCTS.TXT. If not, a standardized warning "*SSE 27 - ENC<cell name> is not up to date. A New Edition, Re-issue or Update for this cell is missing and therefore MUST NOT be used for Primary NAVIGATION*" shall be permanently displayed when the cell is in use (in use = either visible on screen or part of the invisible largest scale available used for safety contour, etc.).

8. In addition to these two tiers there is a standardized "ENC Update Status Report", see Annex C of S-63. The standardized "ENC Update Status Report" is used as the inspection tool by the crew of the vessel, port state inspectors, vetting inspectors and flag state inspectors.

Analysis/Discussion

9. To facilitate above functionality for S-101 ENC charts and also for all other relevant S-100 Products, the object model of S-128 should include:

- Publication date of the S-128 file itself
- Source of the S-128 file itself (for example name of the RENC that provided it)
- Information per each S-100 related product
 - Name of the S-100 product and “full/partial” related to that product
- Information per each data item
 - Edition number
 - Update number
 - Issue date

10. The provision of suitable object model within the S-128 is not enough. There must also be written rules how to use the content of the received S-128 file to manage up-to-dateness. As an example, see S-63 Clause 6 and Annex C.

11. Further there is a need for proper test data, description of test method and expected results for both development test by the manufacturers and for type approval inspections. As an example, see S-64.

Conclusions

12. The up-to-dateness is currently a gap in the overarching S-100 model. The management of up-to-dateness shall be provided – either by S-128 or by something else.

Recommendations

13. Recommendation is to try to provide the “management of up-to-dateness” by S-128.

Justification and Impacts

14. Justification of providing of the “management of up-to-dateness” is simple. It is just an obligation for every IMO Member State

15. Impact of not providing “management of up-to-dateness” is simple. The S-100 model does not facilitate the minimum requirement of IMO for nautical charts and nautical publication. Therefore for nautical charts the S-57 based ENC charts continue and for nautical publications either traditional paper-based solutions or private de-factor electronic solutions fill the needs of the market.

Action Required of NIPWG

The NIPWG is invited to:

- a. Agree the views expressed in this paper
- b. If agreed to set a task for drafting the detailed solution