

Paper for Consideration by TSMAD 25

Harmonized model for Light Information.

Submitted by:	SNPWG
Executive Summary:	Consideration of steps toward harmonised data models between TSMAD and SNPWG.
Related Documents:	SNPWG 03-12; DCEG.20_Light List Number Complex_Round 2.doc; http://www.iho.int/iho_pubs/standard/S12_ENG.pdf
Related Projects:	SNPWG data model; S-101

Introduction / Background

SNPWG is working on a data model which will enable data providers to structure their nautical publication information in an ECDIS compatible format. TSMAD is working on an S101 Product Specification for ENC's that contains light information. IALA is also working on creating an S-100 model for light information.

Light information is required to be encoded and stored in paper charts, ENC's and List of Lights publications. There is a need to ensure that light information contained in these navigational products is kept current. This implies the use of a common data model and a single data source for light information.

As IALA is the International Association representing those bodies that are responsible for maintaining navigational lights, it is proposed that IALA should work together with TSMAD and SNPWG to ensure that the models used for light information are compatible. TSMAD is invited to discuss the how light information can be maintained in multiple navigational products and whether a common source for this information can be established. Furthermore TSMAD is working on extending the S-57 model for light information, and SNPWG would like to provide the following observations on this work, with respect to nautical publications work.

Analysis/Discussion

TSMAD is trying to improve the current S-57 based Light attributes by introducing a complex attribute for light numbers. SNPWG has developed a complex attribute LITNUM (<http://www.fuerstenberg-dhg.de/mediawiki/index.php/LITNUM>) which was taken into consideration by TSMAD DCEG Subgroup and the group suggested a different approach by eliminating the distinction between the whole number and the decimal and using a single simple attribute:

Complex Attribute	Acronym	Allowable Encoding Value	Type	Multi
Light Number	LITNUM		C	0,*
Letter Designator	LITNML		(S) TE	0,1
Number of a Light		XX.XX	(S) RE	1,1
National Number			BO	1,1

This new proposal was discussed at the SNPWG15 meeting.

We agree with the new "Number of a Light" attribute. The encoding value should reflect the reality by using 4 digits in front and 5 digits after the decimal point.

We do not agree with the National number at all. Rather we suggest a further improvement by using a national designator (NATION) as used in S57. That would allow us to establish a data stream as suggested by e-Nav from the source (IALA) to the end user (ECDIS or List of Lights) without any interaction of the ENC and List of Lights issuing HO's.

Conclusions

Both HSSC WGs can benefit from a harmonised approach of the issues to be solved. The e-Nav idea becomes reality with the first data stream. The workload for HOs would be reduced.

More importantly, data modellers should not be forced to switch between different ways of modelling the same kind of information when modelling either chart content or nautical publication content. A further benefit can be seen at the stakeholder's side. A harmonised data model is essential to earn as much as possible benefits from the new S100 world.

Recommendations

1. TSMAD DCEG sub-WG is requested to review the SNPWG proposal.
2. TSMAD and SNPWG should develop a common paper to HSSC5 describing the idea and obtain endorsement to contact IALA in that regard.
3. SNPWG should obtain endorsement to review the appropriate sections of S-12 to establish the legal basis for using only one unique number.

Justification and Impacts

The idea of establishing a data stream for light information from source to user underlines the IMO e-Nav idea. Once established the workload for HOs will be reduced significantly. The work will have very little impact of the current workload.

Action Required of [TSMAD]

The [TSMAD] is invited to:

- a. note this paper,
- b. consider the data stream idea,
- c. respond if the described way of involving HSSC5 is appropriate.