

Paper for Consideration by SNPWG16 to be forwarded to HSSC5

Harmonized model for Light Number Information

Submitted by:	SNPWG
Executive Summary:	Discussion of new numbers of List of Lights entries
Related Documents:	SNPWG 03-12; DCEG.20_Light List Number Complex_Round 2.doc; http://www.iho.int/iho_pubs/standard/S12_ENG.pdf http://www.iho.int/mtg_docs/com_wg/TSMAD/TSMAD25/TSMAD25-4.2.1A_HarmModelforLightInfo.pdf
Related Projects:	SNPWG data model; S100; 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 25 has decided not to include List of Light numbers in S101.

Analysis/Discussion

Actually, List of Light numbers are national or international. Also not being said explicitly elsewhere, S12 has assigned the determination of an international number to a light to the UKHO. National Hydrographic Offices may use their own system of numbers.

SNPWG is suggesting an improvement by using a national designator (NATION) as used in S57 and replacing the current international number with a combination of national number and national designator.

The attribute construction would look like

Complex Attribute	Acronym	Allowable Encoding Value	Type	Multi
Light Number	LITNUM		C	0,*
Number of a Light	NUMLIT	XXXX.XXXXXX	F	1,1
Nation	NATION		A	1,1

In addition to the simplified method of assigning and using light numbers, the proposal would allow the establishment of a data stream as suggested by e-Nav from the source (IALA) to the end user (ECDIS or List of Lights) without any or with limited interaction of the ENC and List of Lights issuing HOs.

Conclusions

The proposal offers many benefits.

The workload for the UKHO would be reduced. It would no longer be necessary to maintain a database containing national and international numbers. The well-established principles of being responsible for the hydrographic information of their respective coast would be transferred from the ENC to the Light world and is a logical and consequent extension of the IHO WEND principles.

By introducing such a numeration system, the IHO would establish the basis for the data exchange and streaming between the source (IALA) and the end user (Charts/Publications). Furthermore, the IHO would provide the preconditions for a Light Product Specification potentially to be developed by IALA.

The e-Nav idea becomes reality with the first data stream.

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 could be seen at the stakeholder's side. A harmonised data model would be essential to earn as many benefits as possible from the new S100 world.

Recommendations

HSSC5 is invited to assign to SNPWG a review of the S12 to provide a revision of the same.

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 on the current workload.

Action required of SNPWG16

The SNPWG16 is invited to:

- a. note this paper,
- b. support the idea to bring that proposal to HSSC's attention.

Action required of HSSC5

The HSSC5 is invited to:

- a. note this paper,
- b. consider the data stream idea,
- c. assign the S12 review in that regard to SNPWG.