Paper for Consideration by SNPWG16

Extended model for Light Information

Submitted by:	SNPWG
Executive Summary:	Discussion of extension of List of Lights information
Related Documents:	http://www.iho.int/iho_pubs/standard/S12_ENG.pdf
Related Projects:	SNPWG data model; S100;

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 ENCs 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, ENCs 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.
SNPWG is proposing a new numeration system for each List of Lights entry.

Analysis/Discussion
The current light model either S57 or S101 based does not reflect all information needed to describe light information entirely.
A comparison between the model and the list of lights entries shows that the following information should be modelled.

1	Light Number	complex	S-12, item 4.1
3	Additional object name information	string	S-12, item 4.2
4	Relative description of the position	string	S-12, item 4.3
5	Additional building description	string	S-12, item 4.7

Annex A provides draft versions of data sheets and modelling proposals.

Conclusions
The results of the SNPWG questionnaire show that mariners request information on navigational marks in addition to that currently provided by electronic charts. The additional attributes are able to provide such information.
The attributes are also the precondition to extend the navigational marks information in a way that IALA could easily extend the data model if considered necessary.
A further benefit can be seen at the List of Lights producing HOs' side. The attributes will enable such HOs to produce a List of Lights publication based on one database for both charts and publications.

Recommendations
SNPWG16 should consider the proposal and extend the proposed set of attributes if necessary. SNPWG should discuss and decide whether it would be worthwhile to contact IALA in that regard.

Note: FOR REASONS OF ECONOMY, THE DELEGATES ARE KINDLY REQUESTED TO BRING THEIR OWN COPIES OF THE DOCUMENTS TO THE MEETING

Justification and Impacts

The idea of having one data base for all HOs' products would be supported. The present necessary duplication of data would be reduced significantly.
The work would have very little impact on the current workload.

Action Required of SNPWG16
The SNPWG16 is invited to:

        a.   note this paper,

        b.   support the proposal and extend if considered necessary,

        c   support IALA if they intend to extend the model for their purposes.

addobn

FEATURE OBJECT ATTRIBUTES

Attribute: Additional object name description

Acronym: addobn   Code:

CamelCase: additionalObjectNameDescription

Attribute type: Simple

Data type: String

Definitions:

An addition to the object name which is either a part of the name or which can't be encoded sufficiently using other S57 attributes.

Remarks:

The additional object name description content will not become part of the name index. Thus, the consideration should be done extremely carefully to identify if such description is part of the name or not.

Distinction:

CATLIT, OBJNAM, NOBJNM

Justification:

New attribute

Comment:

No comments.

relpsn

FEATURE OBJECT ATTRIBUTES

Attribute: Relative position description

Acronym: relpsn   Code:

CamelCase: relativePositionDescription

Attribute type: Simple

Data type: String

Definitions:

This describes the position of a light in a relation to or connection with or necessary dependence on another structure.

Remarks:

NIL

Distinction:

NIL

Justification:

New attribute

Comment:

No comments.

addbld

FEATURE OBJECT ATTRIBUTES

Attribute: Additional building or landmark description

Acronym: addbld   Code:

CamelCase: additionalBuildingOrLandmarkDescription

Attribute type: Simple

Data type: String

Definitions:

Information used to describe particular features of buildings or landmarks where a light is being fixed.

Remarks:

NIL

Distinction:

NIL

Justification:

New attribute

Comment:

No comments.

addlit

FEATURE OBJECT ATTRIBUTES

Attribute: Additional light information

Acronym: addlit   Code:

CamelCase: additionalLightInformation

Attribute type: Simple

Data type: String

Definitions:

Information used to describe particular features of a light.

Remarks:

Encoding lights with sectors, the information has to be provided for the light starting with the lowest value (count starts with 000°).

Distinction:

NIL

Justification:

New attribute

Comment:

No comments.