**1st IHO-HSSC Meeting**
**The Regent Hotel, Singapore, 22-24 October 2009**

**Information Paper for Consideration by HSSC**

**Development of Portrayal Specifications for Nautical Publications
Information**

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| ***Submitted by:*** | SNPWG |
| ***Executive Summary:*** | Information Paper regarding portrayal specifications for nautical publications information in ECDIS |
| ***Related Documents:*** | S-100 |
| ***Related Projects:*** | TSMAD, DIPWG |

## Indroduction

1.      The objective of the Standardization of Nautical Publications Working Group (SNPWG) is to develop guidelines for the preparation of nautical publications, in a digital format compatible with ECDIS. Nautical publications include but are not limited to:

> Distance Tables,
> List of Buoys and Beacons,
> List of Lights,
> List of Radio Signals,
> List of Symbols,
> Abbreviations and Terms used on Charts,
> Mariners' Handbooks,
> Notices to Mariners,
> Routeing Guides,
> Sailing Directions,
> Tidal Stream Atlases,
> Tide Tables.

2.      The purpose of this paper is to report a perceived limitation in the expertise of the SNPWG in the area of digital information portrayal and to provide information on a proposal to be submitted at a future HSSC.

## Discussion

3.      SNPWG is developing the NPUBS Feature Concept Dictionary (FCD) that is one of the core registers in the IHO Geospatial Information Infrastructure (GII). Register development is a necessary first step to migrate information from paper products and early digital products (NP2) into data to be used in ECDIS.

4.      The next step is to grow expertise in the development of product specifications for nautical publications information. The primary components of any S-100 product specification are: metadata, application schema, feature catalog, data capture and classification guide, and a portrayal component.

5.      Member State representatives and technical experts have assumed work packages to experiment with the development of several product specifications. Good progress has been made in multiple work flows and useful cross pollination between SNPWG sub-working groups has been achieved. There has also always been informal cross flow of ideas from and to the TSMAD, created by a number of people working in both groups and this co-operation is steadily improving.

6.      The following logical step is to create some test datasets; and this work cannot proceed far without consideration of how it will be portrayed. One option is that nautical publications information could be incorporated into the SENC as an additional layer to the ENC. This option will require symbology which is consistent and compatible with ENC symbology.  SNPWG lacks the appropriate technical expertise to provide the detailed guidance to OEMs for the portrayal of nautical publications information in ECDIS especially in relation to the conversion of distributed data into SENC format.  Nor is it advisable for more than one working group of the HSSC to provide this detailed guidance.

7.      The objective of the Digital Information Portrayal Working Group (DIPWG) is to maintain IHO specifications for colours, symbols and display rules used to show SENC information on ECDIS in a safe and ergonomic manner. The SNPWG has taken advantage of tried and tested techniques developed for the first generation of ENCs; is following the development of S-100 closely; is employing many of these new concepts; and is attempting to integrate its work as closely as possible with the work of TSMAD.  The SNPWG feels that the DIPWG should be tasked to take account of current and future work of the SNPWG in addition to the work of the TSMAD.

**Conclusion**

8.      The SNPWG has concluded that the expertise of the DIPWG will be required to provide integrated, coherent and complete guidance on portrayal of digital nautical publications information as well as portrayal of digital nautical charts.  The purpose of this paper is to inform the HSSC of this view and to state that the SNPWG intends to submit a proposal to the second HSSC meeting to task DIPWG accordingly.

**Action Requested of HSSC**

9.      The HSSC is invited to **take note** of the information in this paper.