

7th CSPCWG MEETING
Cape Town, South Africa, 23-26 November 2010

Paper for Consideration by CSPCWG

Report to CSPCWG7 on DIPWG Activities

Submitted by:	Australia
Executive Summary:	Report on DIPWG Activities Since CSPCWG6.
Related Documents:	Minutes DIPWG2
Related Projects:	S-4/INT1 development

Introduction / Background

The IHO Digital Information Portrayal Working Group (DIPWG) is a technical Working Group of the IHO HSSC. Its primary objectives are to maintain IHO technical specifications for colours, symbols and display rules used to show SENC information on ECDIS in a safe and ergonomic manner. This is achieved through the maintenance of the IHO ECDIS Standard S-52 “Specifications for Chart Content and Display Aspects of ECDIS”, including its appendices and annexes.

Since CSPCWG6, DIPWG has met once, in conjunction with TSMAD20, in Rostock, Germany on 03-07 May 2010.

The main focus of this meeting was the continued development of a portrayal model in S-100. The following is a summary of the activities of this meeting, with particular emphasis on activities that may be of relevance to CSPCWG. Minutes of the meetings may be found on the DIPWG page of the IHO web site.

Analysis / Discussion

Documents published since CSPCWG6:

- S-52 – Specifications for Chart Content and Display Aspects of ECDIS – Edition 6 (March 2010). In addition to the inclusion of extant S-52 Maintenance Documents, Edition 6 of S-52 incorporates a re-structure of the Standard, with the former Appendix 2 (Colours and Symbols Specifications) being incorporated in the main document. The former Annexes to Appendix 2 have been incorporated as Annexes to the main document. Edition 6 also accommodates the revised IMO ECDIS Performance Standards and the resulting revised IEC 61174 Specification for ECDIS Type Approval.

DIPWG2: The principle agenda item for this meeting was discussion on the continued development of the portrayal model for S-100. The following issues that may be of interest to CSPCWG were discussed:

- S-100 Portrayal Model: A considerable amount of work has been done under IHB contract since DIPWG1 on developing the S-100 portrayal model. A summary of the work done since CSPCWG6 includes:
 - Preliminary portrayal and symbol model designs to be used in the S-100 Portrayal Register have been completed, and conform to the latest iteration of the ISO 19117 Standard;
 - UKHO is in the process of developing a Portrayal Register and Portrayal Catalogue capability based on the preliminary symbol model designs;
 - Preliminary investigations have commenced (DIPWG in coordination with TSMAD) regarding the encoding of the current S-52 Look-Up Tables and complex Conditional Symbology Procedures in XML;
 - Discussions are progressing on how to best incorporate new portrayal rules in the ECDIS through “plug and play” capability.
- Maintenance of the Presentation Library: S-52 Maintenance Document No. 8 (MD8) is in the process of being written. It is expected that MD8 will clarify the portrayal rules for certain wrecks

and obstructions; resolve some issues identified with ECDIS Chart 1; resolve presentation issues related to unknown (null (empty) attribute value) and unpopulated attribute values; and resolve some other minor symbology issues in the Look-Up Tables.

- DIPWG liaison with CSPCWG: The DIPWG Chair was pleased to report that he is now keeping abreast with CSPCWG activities through the review of CSPCWG correspondence. To this end, he presented a paper “Paper Chart Symbol Changes Considered by the CSPCWG” (TSMAD20/DIPWG2_21.2A) to bring DIPWG members up to date on specific symbology issues that may have an impact on digital information portrayal. It is anticipated that similar papers will be submitted to future DIPWG meetings. Discussions on new/revised paper charts symbols implemented by CSPCWG in regard to portrayal in ECDIS were as follows:
 - Pipeline tunnel entrances: There is no method for indicating in the object class PIPSOL (pipeline, submarine/on land) where the pipeline enters a tunnel. Similarly, there is no existing S-57 object class which can be utilised to encode this information. No action is recommended for S-57, but may be discussed for S-101 portrayal. A similar situation exists for submarine cable tunnel entrances.
 - Offshore renewable energy devices: DIPWG members have been asked to consider whether a generic renewable energy or wave farm symbol is desired.
 - Marine farm/culture: DIPWG members have been asked to consider whether a separate shellfish symbol is desired.
 - Small craft facilities: No portrayal action recommended.
 - Floating wind turbines: No portrayal action recommended.
- Work has commenced in developing specifications for enhanced aid to navigation symbology in which aids to navigation such as buoys will have colour filled “traditional” symbology in the ECDIS. This work is being carried out in conjunction with a related project to have only one standard symbology set available in the ECDIS, i.e. elimination of the option for “traditional” or “simplified” symbology.
- Development of symbology for portrayal of nautical publications in ECDIS: Continuing liaison between DIPWG, TSMAD and SNPWG is ongoing in regard to portrayal of nautical publication information in ECDIS. OEM representatives will also be involved in discussions in order to gain an understanding of SNPWG requirements.
- Paper Chart/ECDIS Chart 1 (P/ECDIS Chart 1): Work has re-commenced on the compilation of a reference document for the mariner that combines both paper chart symbols and corresponding ECDIS symbol(s) in the format of the traditional INT1 document. The document is to be referred to as the paper Chart/ECDIS Chart 1, or P/ECDIS Chart 1. The document is being developed by NOAA and is based on the US Chart 1. It is anticipated that the document will be completed in late 2011 and will be published as US Chart No. 1, Edition 12.

Next Meeting: The next meeting of DIPWG (DIPWG3) is scheduled for April 2011 in Inchon, Republic of Korea, in conjunction with TSMAD22.

Conclusions

Continued liaison between CSPCWG and DIPWG is a necessity in order to address emerging navigational requirements in a multi-product environment.

Recommendations

None.

Justification and Impacts

No immediate impacts on CSPCWG projects arise from this report.

Action required of CSPCWG

The CSPCWG is invited to:

- a. endorse this report.
- b. note issues within the report of interest to CSPCWG.