19th CHRIS MEETING
Rotterdam, The Netherlands, 05.–09. November 2007

REPORT OF THE COLOURS & SYMBOLS MAINTENANCE WORKING GROUP (CSMWG)

From June 2006 – September 2007

Submitted by:	Mathias Jonas, Germany
Executive Summary:	Report on the work undertaken and progress made by the Colours and Symbols Maintenance Working Group, since CHRIS18, and future plans
Actions to be taken:	CHRIS to note the report, and endorse the future plans.
Related documents:	CHRIS letter No. 1/2007 (call for reports)
Related projects:	Not applicable

1. **Chairman:** Dr. Mathias JONAS (Germany)

   Vice Chair: Julia POWELL (USA)

   Tech. Co-ordinator: vacant

   Secretary (acting): Mr. Chris ROBERTS (Australia)

2. **Membership:**

   IHO **_Australia_**, Canada, **_Finland_**, **_France_**, **_Germany_**, **_Norway, UK, USA,_** Venezuela, **_IHB_**

   Non-IHO **_SevenCs_**, NDI, C-Map, CARIS, Offshore Systems Inc., Canadian Coast Guard, DCIEM (Canada), Furuno Finland, **_GEOMOD_**, **_Hydroservice AS,_** **IC-ENC,** Jeppesen Marine, **_Transas Group_**, Raytheon Marine, Kelvin Hughes, USCG, **SAM Marine Electronics**, CIRM, IEC TC80, **DNV Type Approval**, Wismar University

3. **Meetings:** CSMWG17 Meeting 11.–13. June 2007, including 2nd combined TSMAD/CSMWG meeting in Stavanger, Norway hosted by Norwegian Hydrographic Office (Attendees of CSMWG17 and/or combined TSMAD/CSMWG meeting are marked in bold/italics)

4. **Activities** Actions resulting from CHRIS18 minutes (see Section A)

   Actions resulting from combined 2nd TSMAD/CSMWG Agenda (see Section B)

   Actions resulting from CSMWG17 Agenda (see Section C)

5. Action required from CHRIS

- Note the completion of Edition 3.4 of Presentation Library as part of S-52, Appendix 2.

- Endorse road map to issue Maintenance Document No. 6 on short notice to reach compliance of Edition 3.4 of Presentation Library with revised IMO ECDIS Performance Standards in advance.

- Recommend the continuation of the encoding of linear depth areas by HOs until 31. December 2008.

- Provide guidance to the procedure for Chairman changing between ordinary IHCs.

- Endorse the necessity of an IHO CL to MS, requesting HOs to issue an NtM update for any of the new S-57 Supplement No. 1 (Edition 3.1.1) objects and to encode INFORM and or TXTDSC attributes of the affected objects.

- Confirm the continuation of activities to form a symbol specifications registry done as part of S-100 preparation done under paid contract generating substantial costs of approx. 12.000,- Euro per year.

- Endorse the proposal for a workshop on cell loading issues addressing the problems from both data production and OEM sides. Note that this workshop would be in conjunction with the S-101 workshop proposed by the TSMAD chairman.

- Endorse CSMWG work items to become part of the CHRIS work program.

CSMWG Work program to be confirmed by CHRIS19

Work item	Start date	End Date	Status
Maintenance of S-52, App.2 Presentation Library 3.4			O
Issue of PresLib, Edition 3.4 containing MD05 and immediate amendment for presentation of ASL, PSSA and NEWOBJ	CSMWG17, April 2007	December 2008	P
Adaptation of PresLib for compliance with revised IMO ECDIS PS	June 2007	December 2008	P
Revision of S-52 main document - update the cross-reference table and replace Annex B with the new IMO PS.	January 2008	May 2008	P
Prepare new plots for new edition of S-64 test data set.	November 2007	December 2007	P
Develop new ECDIS Chart 1	February 2007	December 2007	P
Revisit all existing CPBs and update if required	July 2007	December 2007	P
In close liaison with TSMAD, set up a portrayal register within the S-100 registry	May 2005		O
Contribute to common work of SNPWG and UNH, for NP3 presentation	October 2006		O
Liase with CSPCWG	2005		O

Section A: Actions resulting from CHRIS18 minutes

CHRIS WGs support e-navigation

CSMWG members will keep their national IMO representatives informed about the issues and status of IHO standards for unified chart presentation as a core element of the e-navigation strategy.

PresLib Edition 3.4 - Roadmap for publication and setting into force

Based on the new objects and attributes introduced by the S-57 Supplement No. 1 (Edition 3.1.1), the WG has developed suitable symbolisation, which has become part of the Maintenance Document No. 5 of S-52, Appendix 2 Presentation Library. The Maintenance Document is a compilation of all changes approved by CSMWG15, 16 and 17. As approved by CHRIS18, the application of the Maintenance Document results in a new Edition 3.4 of S-52, Appendix 2 Presentation Library to be set in force by 1. January 2008 (see Annex A of this document).

As a result of a longer process, IMO adopted a revised ECDIS Performance Standard to be set into force for new and existing ECDIS by 1. January 2009. Some of the revisions made do affect presentation matters, namely the shift of buoys and beacons from Display Base to Standard Display. The WG now proposes two options to adapt the PresLib to these revisions (see Annex B):

Option		Effective Date
1	Issue PresLib 3.4	2008
	Incorporate IMO PS changes immediately into the PresLib Edition 3.4	2008

Explanation:
In order to avoid another new Edition of the Presentation Library within one year's period, a Maintenance Document No. 6 will be issued by end of November 2007 containing all amendments of the PresLib needed to meet the revised IMO PS. These amendments are to become part of the Presentation Library Edition 3.4 announced for 1. January 2008.

Advantages:
Edition 3.4 will already contain all the needed modifications resulting from the changed presentation requirements of the revised ECDIS Performance Standards and compliance with S-57, Edition 3.1.1 (as far as Presentation matters are concerned), and can be achieved by one software update.

Disadvantages:
The issue of the MD 6 would be of very short notice to the OEM's.

Uncertainties:
The application of MD 6 by 1. January 2008 would establish compliance with revised IMO PS one year before regularly setting in force.

Option		Effective Date
2	Issue PresLib 3.4	2008
	Issue Supplement 1 to PresLib 3.4 resulting in Edition 3.4.1 to incorporate IMO PS changes	2009

Explanation:
Maintenance Document No. 6 containing all amendments of the PresLib needed to meet the revised IMO PS will be issued in spring 2008. In anticipation of the upgrade of S-57, Version 3.1 to become Version 3.1.1, the MD 6 will contain a Supplement of Preslib, Edition 3.4 to become Edition 3.4.1. PresLib Edition 3.4.1 will be set in force together with the revised ECDIS PS by 1. January 2009

Advantages:
OEM's would have sufficient time to apply these changes to their ECDIS kernels.

Disadvantages:
Another (costly) software upgrade of existing ECDIS systems in the field would be needed within 2008.

The draft Maintenance Document No. 6 together with a roadmap for its introduction (see Annex B of this document) will be presented at CHRIS19 and the attached ECDIS stakeholders' meeting seeking acceptance for one of the above options.

Currency of ECDIS software - Shortcomings in ECDIS

As directed by CHRIS, a letter was sent to all customers of the PresLib identified as ECDIS Manufacturers and OEMS regarding these issues, with some verbal responses and one written response confirming they will change their functionality.

Continuation of coding of linear depth areas

The shortfall of the conditional symbology procedure which makes the encoding of linear depth areas redundant has now been corrected and was published by means of S-52, App. 2 Maintenance Document No. 5 in July 2007. The application of all modifications of the Presentation Library resulting from this document is required by 1. January 2008. Since NAV 52 released a revised ECDIS PS to come into force **1 Jan 2009** which results in a mandatory software upgrade of all existing ECDIS systems, it is proposed to coincide stopping ENC encoding of linear depth areas to correspond with this date. HOs will not be required to remove linear depth areas from existing ENCs.

Revised Terms of Reference after IHC approval of new CHRIS ToR

Due to the new CHRIS ToR approved at the recent IHC in May 2007, the election of a new Chairman and Vice-Chairman must be a representative of the IHO MS and be voted on after the ordinary IHC (at least every 5 years). CSMWG therefore conducted an election at the meeting. Dr Mathias JONAS (BSH) was re-elected as Chairman of CSMWG with Julia POWELL (NOAA) as Vice-Chairperson. The position of Secretary is vacant after CSMWG17.

Since the re-elected chairman indicated that he will resign after CSMWG18 (2008) CHRIS19 is asked to provide guidance to the procedure for Chairman changing between ordinary IHCs.

Section B: Actions resulting from combined 2nd TSMAD/CSMWG Agenda

Technical Matters

IALA Emergency Wreck marking Buoys	This type of buoy is currently in use on a trial basis. Existing encoding and presentation as BOYSPP – buoy of special purpose was agreed as being adequate. An ENC Encoding Bulletin will be issued by TSMAD.
Encoding 'unknown' objects	Propose an IHO CL to MS, encouraging HOs to issue a NtM update for any of the new S-57 Supplement No. 1 object classes to ensure that the mariner knows what these features are. An ENC Encoding Bulletin will be published instructing HOs to encode INFORM and or TXTDSC attributes of the affected objects. (Note: the use of NEWOBJ may only be used for ENCs after obtaining approval from both CSMWG and TSMAD.)
S-100 IHO Portrayal and symbol register	- Continuation of work on portrayal register for S-100. - Extension of the contract with external consultant to complete the task. - Proposal to appoint a register manager for future portrayal register hosted by IHO.

Liaison Matters

Collate information on S-57 V3.1.1/PresLib E3.4 matters requiring consideration by IEC	Inform WG7 of IECTC80 and commend draft IEC 61174 Edition 3.
Cell loading policy	Proposal for a workshop on cell loading issues addressing the problems from both data production and OEM ECDIS systems.
Portrayal/Display of MIOs	- MIO symbology is not considered as part of the permanent display on ECDIS. Instead, MIO objects and symbolization serves for planning tasks and general synopsis rather than for route monitoring and collision avoidance. HGMIO is therefore free to propose useful symbology giving due consideration to the rules and guidance provided within S-52 App. 2. - Pending to the development of S-100 portrayal, HGMIO may have to build their own register within the portrayal registry.

Section C: Actions resulting from CSMWG17 Agenda

Technical Matters

Revision of S-64 test data sets	- Prepare the new TDS including examples for SYMINS-objects and the use of SCAMIN. - Prepare new plots, all to be completed and published as a new edition of S-64.
Maintenance document No. 5	- Complete and issue CSMWG MD No. 5 - Incorporate all amendments into PresLib 3.3 to become PresLib Edition 3.4
Adaptation of associated ECDIS Chart 1	Develop new ECDIS Chart1 under contract making use of NEWOBJ mechanism within S-57 Supplement No. 1.

Operational Matters

Chairman, Vice-chairman and Secretary	- Chairman announced resignation after CSMWG18 (2008) - Acting secretary announced resignation due to his retirement in April 2008. - Julia Powell of NOAA was elected as Vice-Chairperson with possibility as Chairperson from 2009.
Chart Presentation Bulletins (CPBs) on IHO CSMWG website	Revisit all existing CPBs and update if required
Reorganisation and harmonisation of S-52 (Main document and annexes)	IEC 61174 has direct references to the S-52 main document directing readers to specific paragraphs. Due to the ongoing discussion of a possible ECDIS carriage requirements at IMO it a reorganised S-52 main document including its Annexes would be probably irritating at this stage. It is therefore proposed the harmonisation of S-52 to the following action items: - For S-52 main document, update the cross-reference table and replace Annex B with the new IMO PS. - Check if S-52 Appendix 1 (Guidance on updating) and Appendix 3 (Glossary of ECDIS related terms) can be declared "cancelled" or "invalid" A full reorganisation of presentation requirements of IHO should be subject to the development of the portrayal components of S-100.

Liaison Matters

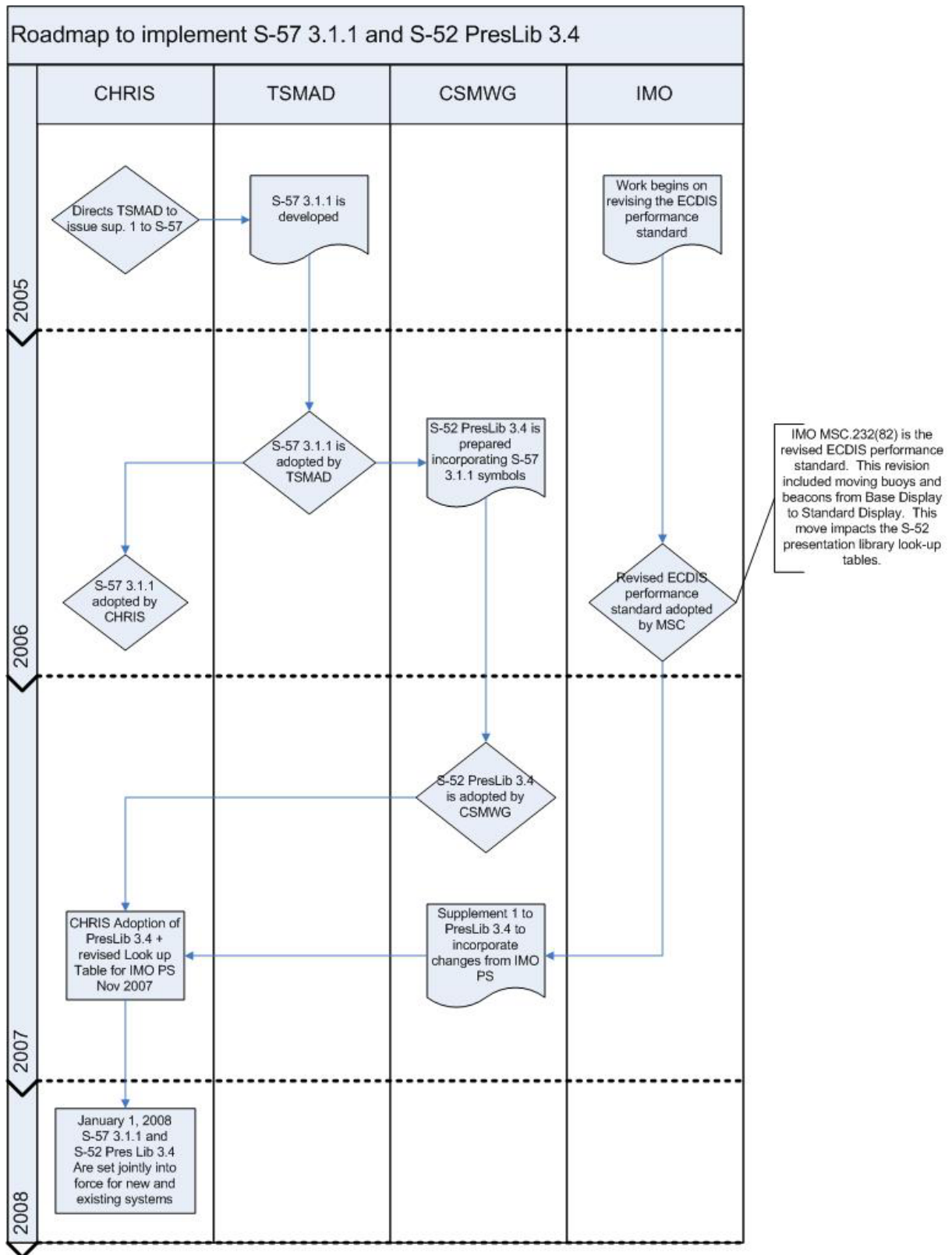|	
S-64 Test data set	Proposed item for ECDIS Stakeholders' Forum agenda to announce a new edition of the S-64 test data set.
OEF Producer Code Management	Proposed item for ECDIS Stakeholders' Forum agenda to decide where this register should reside and who will manage it.
Portrayal register within S-100 registry	Devolop portrayal register fitting to the structure and content of the S-100 registry in liaison with TSMAD
Presentation of pick report on ECDIS	Reanimate liaison with HGMIO

Annex A

Road map how to implement and set S-57, Edition 3.1.1 and PresLib, Edition 3.4 jointly into force

Annex B

Road map to implement IMO Performance Standards Changes to S-52 PresLib 3.4