

2nd IHO-HSSC Meeting
Rostock, Germany 26-29 October 2010

Report of the Digital Information Portrayal Working Group (DIPWG)

Submitted by:	Chairman, Colby A. Harmon
Related Documents:	DIPWG2 (Rostock, May 2010) meeting minutes
Related Projects:	TSMAD Development of S-100 and S-101

Chair:	Colby A. Harmon, USA		
Vice-Chair:	Julia Powell, USA		
Secretary (acting):	Richard Coombes, United Kingdom		
Professional Assistant	Michel Huet, IHB		
* Member States:	Australia	France	Norway
	Brazil	Germany	Sweden
	Canada	Japan	UK
	Denmark	Netherlands	USA
	Finland	New Zealand	
* Expert Contributor Organisations:	CARIS (Canada) C-Map/Jeppesen Marine (Germany/Norway) ECC (Norway) ESRI (USA) Furuno Finland (Finland) Geomatics and Hydrography, Port ENC, Port of Hamburg (Germany) GEOMOD (France) IC-ENC (UK) IIC Technologies (Canada) Malardalen University (Sweden) SevenCs (Germany) T-Kartor (Finland) Transas Group (Russia)		
<i>see Annex A for full details</i>			

* Attendees of either of the last two DIPWG annual meetings. Bold text indicates those attending in 2010.

Meetings Held During Reporting Period: DIPWG2, 3-7 May 2010

Rostock, Germany Hosted by Bundesamt für Seeschifffahrt und Hydrographie (BSH)

Next Meeting: DIPWG3, 18 April 2011

Inchon, Republic of Korea Hosted by Korean Hydrographic and Oceanographic Administration (KHOA)

Work Program (Tasks with active work items assigned)

Task	Task / Work Item	Priority	Start	End
A	Maintain S-52 and its associated "Presentation Library"	H	2002	Cont
A.1	Resolve any problems or errors identified in S-52 and its Presentation Library as appropriate	H	2009	Cont
Status: ONGOING See status under A.4, Issue Maintenance Document No. 8 of S-52," below.				
A.2	Implementation of changed requirements of revised IMO ECDIS Performance Standards into S-52 Colours & Symbols regulations	H	2006	2010
Status: COMPLETED (HSSC agreement to close this work item is sought) Draft of S-52, Ed. 6, was distributed for comment through IHO Circular Letter 34/2009, which requested feedback. Comments were addressed in the final version of S-52, Edition 6 which is now posted on the IHO website.				
A.4	Issue Maintenance Document No. 8 of S-52.	M	2009	2010
Status: ONGOING MD 8 (Deferred Amendment 9) is still being written. It is expected that MD8 will: - Clarify the portrayal of certain wrecks and obstructions - Resolve some issues with the ECDIS Chart 1 - Add "Unknown" as a valid enumerate value in the Presentation Library Look-up Tables to differentiate between unknown and unpopulated (null) attribute values. - Update Section 15 of the Presentation Library, which lists some older symbol names for symbols that had been replaced with newer versions and incremented symbol numbers in the current S-52, Annex A, Addendum.				

Task	Task / Work Item	Priority	Start	End
C	Examination of S-52 main documents and annexes for redundant operational aspects of ECDIS.	M	2002	2007
Status: COMPLETED All work items under this task have been completed. HSSC agreement to close Task C is sought.				
C.2	Liaise with IEC to harmonize the resulting new draft of S-52 with IEC61174 and IEC62288 through the Chairman of IEC/TC80.	H	2008	2010
Status: COMPLETED (HSSC agreement to close this work item is sought) In March 2010, Michel Huet and Colby Harmon exchanged a series of e-mails with Kim Fisher, Secretary IEC TC80, to clarify how changes in the new S-52, Edition 6 should be referenced by IEC. No further queries regarding S-52, Edition 6 have been received.				

Task	Task / Work Item	Priority	Start	End
F	Assess the impact on S-52 C&S regulations of other IHO standards.	M	2002	Cont
F.2	In close liaison with TSMAD, set up a portrayal register within the S100 registry.	H	2005	2012
Status: ONGOING Preliminary Portrayal and Symbol model designs to be used in the S-100 Portrayal Register have been completed under an IHB contract with GEOMOD and CARIS. These models conform to the latest iteration of the ISO 19117 standard. The UKHO will be using the experience that they gained through their development of the Feature Concept Register and a Feature Catalogue builder to create the Portrayal Register and Portrayal Catalogue builder capability based on the models developed under the IHB contract. A statement of work is being written by DIPWG, in coordination with TSMAD, for a future modest IHB contract that will enable access to GEOMOD and CARIS expertise regarding the Portrayal and Symbol model designs and the encoding of the current S-52 look-up tables and complex Conditional Symbolization Procedures in XML.				
F.3	Assist TSMAD in identifying which aspects of S-52 should be incorporated into the S-101 Specification.	H	2009	2010
Status: ONGOING (HSSC agreement to correct item wording from "S-101" to "S-100" is sought) The initial extraction of the pertinent sections of S-52 has been made and is now being edited to remove				

redundant text and to move related topics into the same sections. The final draft will be submitted to TSMAD and DIPWG for review as part of the process of writing Section 9 of the S-100 standard, which describes portrayal.				
F.4	Develop proposal to refine and clarify the governance for each portrayal component (Standards, Specifications & Registers) of S-100 & S-101.	H	2009	2010
<p>Status: REDUNDANT (HSSC agreement to close this work item is sought) This work item is being addressed by other activities undertaken by the IHB and TSMAD.</p> <p>At the first HSSC meeting, the IHB presented HSSC1-06.1B, "Standardised Development, Consultation and Approval Procedures for IHO Technical Standards," and a follow up document, HSSC2-04B of the same title, is being presented at the second HSSC meeting, which proposes modifications to IHO Resolution 2/2007 (formerly, A1.21), "Principles and Procedures for making changes to IHO Technical Standards and Specifications." These proposed changes are intended to "more clearly define the development, consultation and approval procedures [the governance] for IHO technical standards," such as S-100 and S-101.</p> <p>Also at the first HSSC meeting, TSMAD presented HSSC1-06.1G, "Update on the Proposed Management Arrangements for the Geospatial Information Infrastructure (GII)." At HSSC2, TSMAD is presenting HSSC2-05.1B, which invites HSSC to recommend adoption of IHO S-99, "Operational Procedures for the Organization and Management of the IHO Geospatial Information Registry," by IHO member states. This publication, "describes the roles, responsibilities and procedures [the governance] for operating and managing the IHO Registry and its component Registers.</p> <p>Therefore, it is believed that work item F.4 is redundant and should be removed from the DIPWG work plan.</p>				

Task	Task / Work Item	Priority	Start	End
J	Harmonisation with CSPCWG.	M	2005	Cont
J.1	Liaise with CSPCWG.	M	2009	Cont
<p>Status: ONGOING DIPWG is continuing to monitor CSPCWG activities through a review of ongoing CSPCWG correspondence, an update on the working group presented by its vice chair, Jeff Wootton, at the last combined TSMAD/DIPWG meeting in May 2010. The DIPWG chair also presented the paper, "Paper Chart Symbol Changes Considered by the CSPCWG," (TSMAD20/DIPWG2-21.2A) at the May meeting to bring TSMAD and DIPWG members up to date on specific symbology issues that may have an impact on digital information portrayal.</p>				

Task	Task / Work Item	Priority	Start	End
K	Maintain the DIPWG bulletin and FAQ section on the IHO website	M	2005	Cont
K.2	Maintain Chart Presentation Bulletins on the DIPWG page of IHO website	M	2008	Cont
<p>Status: ONGOING This work item addresses the routine posting of CPBs on the IHO website.</p>				
K.3	Review and revise other informational on the DIPWG page of IHO website	L	2008	Cont
<p>Status: ONGOING This work item addresses the continual improvement of the DIPWG page on the IHO website.</p>				

Task	Task / Work Item	Priority	Start	End
L	Investigate enhancing the appearance of existing traditional paper chart symbols used in ECDIS by modifying their size, shape and colour.			
L.1	Investigate enhancing the appearance of existing traditional paper chart symbols used in ECDIS by modifying their size, shape and colour.	L	2009	Cont

Status: ONGOING

This work item is intended to explicitly specify that aids to navigation, such as buoys, be color filled. This will combine the familiarity of the shape of traditional paper symbols with the enhanced clarity of the color filled simplified symbology for ATONs. DIPWG is still developing this approach. A related effort by DIPWG is underway in which eliminate the option for Traditional or Simplified symbology. A single symbol will be selected (either traditional or simplified) for use in the future (either in an updated S-52 or in S-100).

Task	Task / Work Item	Priority	Start	End
M	Develop symbology for portrayal of nautical publications in ECDIS			
M.1	Develop symbology for portrayal of nautical publications in ECDIS.	M	2009	Cont

Status: ONGOING

The DIPWG chair presented the paper, "Considerations for Symbolizing Nautical Publication Information in ECDIS," (TSMAD20/DIPWG2-15A) at the combined TSMAD/DIPWG meeting in May 2010, which discussed ongoing SNPWG activities and some of the issues related to symbolizing nautical publication information. The chair also stated that DIPWG is eager to assist SNPWG in developing symbols and associated rules and tables to facilitate the portrayal of nautical information, but recognizes that the expertise within DIPWG is primarily related to the graphical display of information and not with effectively displaying large amounts of text. It was also acknowledged that there are many questions that still need to be answered in order to move forward with the portrayal of nautical information.

The paper recommended that:

1. The best role for DIPWG at this point might be as a sounding board for SNPWG's ideas as they continue to refine their needs for portraying nautical information, and
2. SNPWG should continue to keep DIPWG apprised of their progress and make every attempt to participate in TSMAD and DIPWG meetings and fora so DIPWG members and OEM representatives can better understand SNPWG's needs and provide face to face advice on what manufactures think might be a desired approach on any specific nautical information portrayal issue.

Work Program (Tasks with no active work items assigned)

There are no active Work Items assigned or proposed for the Tasks listed below.

Task	Task / Work Item	Priority	Start	End
B	Contribute to IEC TC80/WG13 symbol harmonizing work	H	2002	2008
D	Introduce new website based recommendation service for good application practice of S-52	M	2002	2008
E	Contribute to harmonised rules for ENC loading strategy, use of SCAMIN and overscale indication.	M	2002	Cont
G	Improving ENC Consistency/loading strategies.	M	2006	Cont
H	Harmonisation of pick report presentation	M	2005	2008

Progress on HSSC Action Items

HSSC Action No.	Subject	Action
20/22	Pick report	DIPWG to further develop pick report as proposed in CHRIS20-06.3A.
Status: ONGOING An excellent paper was presented at the May 2010 joint TSMAD/DIPWG meeting, "A Proposal for Improving & Standardising the ECDIS/ECS Pick Report," (TSMAD20/DIPWG2-16.2A). An ad hoc committee is weighing the several options that were presented in the paper and will draft a "Minimum Standard for Cursor Enquiry and Pick Report Presentation" for consideration at the next joint TSMAD/DIPWG meeting in May 2011. Final pick report specifications will ultimately be incorporated into the S-101 product specification.		

1/21	ToR/RoP for DIPWG	IHB to include in IHO Publication M-3 "Resolutions of the IHO", the revised DIPWG Terms of Reference (TR K2.26), as contained in Annex D to HSSC1-06.3A.
Status: COMPLETED The DIPWG Terms of Reference has been updated in M-3.		

1/22	Maintenance of the IHO Presentation Library	IHB/DIPWG Chair to release Colours & Symbols Maintenance Document No. 7.
Status: COMPLETED IHB letter S3/8151/DIPWG of 12 November 2009 to ECDIS stakeholders.		

1/23	Traditional symbols for ECDIS and Portrayal of nautical publications in ECDIS	IHB/DIPWG Chair to add to the DIPWG Work Plan the following Work Items "Investigate enhancing the appearance of existing traditional paper chart symbols used in ECDIS by modifying their size, shape and colour" (low priority) and "Develop symbology for portrayal of nautical publications in ECDIS" (medium priority)
Status: COMPLETED Work Items L.1, "Investigate enhancing the appearance of existing traditional paper chart symbols used in ECDIS by modifying their size, shape and colour," and M.1, "Develop symbology for portrayal of nautical publications in ECDIS," have been added to the DIPWG Work Plan as low and medium priority items respectively.		

Problems Encountered

None

Any Other Items of Note

None

Recommended Actions and Justifications

Actions Recommended by DIPWG:

- a. Recommendation: Adopt the revised DIPWG Work Plan contained in Annex B.
Justification: Details of each task item are described in the remarks section of the work plan.

Action Required of HSSC

The HSSC is invited to:

- a. endorse the new DIPWG Work Plan as shown in Annex B.
- b. agree to request additional IHB funds for continuing the development of the Geospatial Information Infrastructure (GII) Portrayal Register.
- c. note the fine work that has been accomplished by the DIPWG team and the excellent assistance provided by our TSMAD partners.

Annex A

DIPWG-2 PARTICIPATION

Member State	Name of Delegate	E-mail
Australia	Jeff WOOTTON	jeff.wootton@defence.gov.au
Brazil	Sebastião SIMÕES de OLIVEIRA	sebastiao@chm.mar.mil.br
Canada	Lynn PATTERSON	pattersonl@dfo-mpo.gc.ca
Denmark	Carsten RIISE-JENSEN	cr@kms.dk
Finland	Mikko HOVI	mikko.hovi@liikennevirasto.fi
France	Jean-Luc DENIEL (TSMAD Vice Chair) Claire FRABOUL Guy UGUEN Geoffroy SCRIVE	jean-luc.deniel@shom.fr claire.fraboul@shom.fr guy.uguen@shom.fr geoffroy.scrive@shom.fr
Germany	Mathias JONAS Johannes MELLES Jochen RITTERBUSCH Arite POPPNER Arvid ELSNER Jens SCHROEDER-FUERSTENBERG	mathias.jonas@bsh.de johannes.melles@bsh.de jochen.ritterbusch@bsh.de arite.poppner@bsh.de arvid.elsner@bsh.de jens.schroeder-fuerstenberg@bsh.de
Japan	Shinichi KIKUCHI	kikuchi-ecm@jha.jp
Netherlands	Ellen VOS	em.vos@mindef.nl
New Zealand	Verena BORSOS	vborsos@linz.govt.nz
Norway	Gjermund BAKKEN Odd Aage FORE	gjermund.bakken@statkart.no odd-aage.fore@statkart.no
Sweden	Hans ENGBERG	hans.engberg@sjofartsverket.se
UK	Barrie GREENSLADE (TSMAD Chair) Tom MELLOR Richard COOMBES (DIPWG Secretary) Paul BURTON Tom RICHARDSON	barrie.greenslade@ukho.gov.uk thomas.mellor@ukho.gov.uk richard.coombes@ukho.gov.uk paul.burton@ukho.gov.uk tom.richardson@ukho.gov.uk
USA (NOAA)	Colby HARMON (DIPWG Chair) Julia POWELL (DIPWG Vice Chair)	colby.harmon@noaa.gov julia.powell@noaa.gov
USA (NGA)	Scott REEVES	scott.w.reeves@nga.mil
USA (NAVOCEANO)	R. Wade LADNER	rodney.ladner@navy.mil
IHB	Michel HUET Tony PHARAOH (TSMAD Secretary) Yong HUH	mhuet@ihb.mc apharaoh@ihb.mc pak@ihb.mc

Industry	Name	E-mail
CARIS, Canada	Hugh ASTLE	astle@caris.com
ESRI, USA	Tom De PUYT	tdepuyt@esri.com
Jeppesen Marine	Michael BERGMANN Eivind MONG Alexander KOLOKOLOV Angel TERRY	michael.bergmann@jeppesen.com eivind.mong@jeppesen.com akokolov@c-map.ru angel.terry@jeppesen.com
Furuno Finland	Hannu PEIPONEN	hannu.peiponen@furuno.fi
ECC, Norway	Svein SKJAEVELAND	svein.skjaeveland@ecc.no
Geomod, France	Pol LE BIHAN	plebihan@geomod.fr
IC-ENC	Richard FOWLE	richard.fowle@ic-enc.org
IIC Technologies	Ed KUWALEK	edk@iictechnologies.com
SevenCs, Germany	Holger BOTHIEN	bo@sevencs.com
T-Kartor, Finland	Agita TARASOVA	at@t-kartor.fi
Transas, Russia	Konstantin IVANOV	konstantin.ivanov@transas.com

Mälardalen University, Sweden	Thomas PORATHE	thomas.porathe@mdh.se
Geomatics and Hydrography, Port ENC, Port of Hamburg, Germany	Dieter Seefeldt	Dieter.Seefeldt@DieSee.com

DIPWG Proposed Work Plan – October 2010 to October 2011

The proposed work plan closes two work items (A.2 and C.2) that have been completed and recommends deleting one redundant work item (F.4). The work to be undertaken within each of the proposed work items is described in the remarks section.

DIPWG Tasks

- A Maintain S-52 and its associated "Presentation Library" (IHO T3.3.1 refers)
- B Contribute to IEC TC80/WG13 symbol harmonizing work (IHO T3.3.3 refers)
- C Examination of S-52 main documents and annexes for redundant operational aspects of ECDIS (IHO T3.3.1 refers)
- D Introduce new website based recommendation service for good application practice of S-52 (IHO T3.3.1 refers)
- E Contribute to harmonised rules for ENC loading strategy, use of SCAMIN and overscale indication
- F Assess the impact of other IHO standards on S-52 C&S regulations
- G Improving ENC Consistency/Loading strategies
- H Harmonisation of pick report presentation
- J Harmonisation with CSPCWG
- K Maintain the DIPWG bulletin and FAQ section on the IHO website

Task	Work Item	Priority H-high M-medium L-low	Mile- stones	Start Date	End Date	Status P-planned O-ongoing C-Completed	Contact Person	Affected Pubs/Standard	Remarks
A.1	Resolve any problems or errors identified in S-52 and its Presentation Library as appropriate	H		2009	-	O	Colby Harmon Julia Powell	S-52	Continuing Work Item This addresses the routine maintenance of S-52.

A.4	Issue Maintenance Document No. 8 of S-52.	M		2009	2010	P	Colby Harmon Mathias Jonas	S-52	<p>Continuing Work Item It is expected that MD8 will:</p> <ul style="list-style-type: none"> - Clarify the portrayal of certain wrecks and obstructions - Resolve some issues with the ECDIS Chart 1 - Add "Unknown" as a valid enumerate value in the Presentation Library Look-up Tables to differentiate between unknown and unpopulated (null) attribute values. - Update Section 15 of the Presentation Library, which lists some older symbol names for symbols that had been replaced with newer versions and incremented symbol numbers in the current S-52, Annex A, Addendum.
F.2	In close liaison with TSMAD, set up a portrayal register within the S100 registry	H		2005	2012	O	Colby Harmon Julia Powell	S-52 S-100 Portrayal Register	<p>Continuing Work Item This work item will refine and expand the initial development of Portrayal and Symbol Models that will ultimately become part of the Geospatial Information Infrastructure Portrayal Register.</p>
F.3	Assist TSMAD in identifying which aspects of S-52 should be incorporated into the S-100 Specification.	H		2009	2010	P	Colby Harmon Julia Powell	S-100	<p>Continuing Work Item This assists TSMAD in writing Section 9 of the S-100 standard, which describes portrayal.</p>
J.1	Liaise with CSPCWG	M		2009	-	O	Colby Harmon Jeff Wootton	S-52 S-100 Portrayal Register	<p>Continuing Work Item This work item will review and address, as appropriate, any changes in paper chart portrayal standards, in close coordination with TSMAD.</p>
K.2	Maintain Chart Presentation Bulletins on the DIPWG page of IHO website	M		2008	-	O	Colby Harmon Michel Huet		<p>Continuing Work Item This work item addresses the routine posting of CPBs on the IHO website.</p>
K.3	Review and revise other informational pages on the DIPWG page of IHO website	L		2008	-	O	Colby Harmon Michel Huet		<p>Continuing Work Item This work item addresses the continual improvement of the DIPWG page on the IHO website.</p>

L.1	Investigate enhancing the appearance of existing traditional paper chart symbols used in ECDIS by modifying their size, shape and colour.	L		2009	-	O	Colby Harmon	S-52 S-100 Portrayal Register	Continuing Work Item Enhancing existing S-52 symbology to take better advantage of modern ECDIS display capabilities.
M.1	Develop symbology for portrayal of nautical publications in ECDIS.	M		2009	-	O	Colby Harmon		Continuing Work Item Assist SNPWG in developing symbols and associated rules and tables to facilitate the portrayal of nautical information