

1st ENC Maintenance Working Group (ENCWG)
Tokyo, Japan (14 - 18 March 2016).



Minutes

Chairman: Thomas Mellor (UKHO)

Vice Chairman: Vacant

Secretary: Anthony Pharaoh (IHB)

Annexes:

Annex A - Actions

Annex B – Agenda

Annex C – List of Participants

1. Opening and Administrative Arrangements

The Chief Hydrographer of the Japan Hydrographic and Oceanographic Department, Mr. Shigeru KASUGA opened the meeting and welcomed members to the first meetings of the S-100 and ENC Maintenance Working Groups. He wished the Working Groups every success in their work during the week.

The ENCWG Chair Thomas Mellor, welcomed members to the meeting, and reminded all members that the position of ENCWG vice-chair had still not been filled and invited nominations for the position.

2. Approval of the Agenda.

The agenda (document 2A) was approved by the meeting with a few minor amendments.

3. Matters Arising and Actions from TSMAD29/DIPWG7.

3A. The chairman reported that although this was the first formal meeting of the WG, there were still some action items that were carried over from the previous TSMAD and DIPWG groups that would need to be addressed. The WG had also held a Sub WG meeting in February, which had resulted in some of the discussion items on the agenda.

3B. The meeting reviewed the list of actions from the TSMAD29 / DIPWG 7 meeting. Action items for 8.1A, 8,2A, 9.1A and 13 have been completed. The action associated with S-58 was discussed at agenda item 5.4.

4. Matters Arising from HSSC7.

4A. Actions from the HSSC7 Meeting.

HSSC7/04 Inputs to the current HSSC WPI for the 2014 period to be provided by HSSC WG Chairs. The Chair reported that these were being prepared and are to be completed for the next HSSC meeting.

HSSC7/05 Chairs of HSSC WGs to collect the views of their members on the IHO Strategic Plan and the IHO 3-year Programme of Work. The chair noted that this is currently being prepared.

HSSC7/11 The chair invited members to take up the position ENCWG Vice chair. Announced at the 1st ENCWG meeting. Finland (Mikko Hovi) informed the Chair during an informal discussion that he would agree to fill the position of Vice Chair. This was announced at the close of the meeting. (*See associated action*).

- HSSC7/12 ENCWG to submit for endorsement by HSSC draft Ed. 5.1.0 of S-58 and a proposal for the date of entry-into-force taking into account feedbacks received from industry, RENCs and ENC Producers. The Chair reported that this is in progress and the S-58 sub-WG will work on this during the ENCWG meeting.
- HSSC7/13 Subject to HSSC endorsement, IHB to issue a CL to IHO Member States seeking their approval of the new Edition of S-58 and of its date of entry-into-force. The Chair reported that this would be subject to the completion of S-58.
- HSSC7/14 During the ENCWG report to HSSC7 the chairman reported to the committee only two OEMS were ECDIS type approved against edition 4.0 of IEC 61174. As a consequence it was unrealistic to expect Mariners to be able to upgrade current ECDIS systems by Aug 2016. The ENCWG chairman proposed that the date for retirement of IHO Presentation Library Edition 3.4 should be revised. HSSC requested the ENCWG chairman co-ordinate with CIRM and IEC to form a well-founded proposal revising the timeline for the withdrawal of Ed. 5.0 of S-52, Ed. 3.4 of the Presentation Library and Ed. 2.0.0 of S-64. This was done and an extension of 1 year was agreed with CIRM and IEC, which was reported verbally by the IHB at NCSR 3. The NCSR committee duly noted the report and endorsed the extension of the expiry date by 1 year (i.e. until end August 2017).
- HSSC7/16 S-66 Project Team to submit a draft revision of S-66 (Stage 1) to the ENCWG. This is to be progressed by correspondence with a view to submitting it for endorsement at HSSC8. The Chair noted that S-66 needs to be added to the ENCWG's ToRs. A start has been made on this document and he invited WG members to contribute to this work. (*See associated action*)
- HSSC7/32 ENCWG to review S-65 (ENCs: Production, Maintenance and Distribution Guidance) for alignment with the WEND Principles and Guidelines as amended. The Chair reported that this work is in progress and he invited WG members to contribute to the work.
- HSSC7/37 ENCWG and S-100WG to monitor any possible impact of the work on the agreed e-navigation outputs on ECDIS related standards and S-100 related standards respectively. This is an ongoing action.
- HSSC7/38 ENCWG to consider the impact of the implementation of the new editions of S-52, the Presentation Library and S-64 on the ECDIS ship check dataset and associated instructions taking into consideration the new ECDIS Chart 1. The Chair noted that the IHB had reported that there had been a huge increase in the number of responses being received. It appears that in some cases, the checks were being used for vetting purposes by Port State Inspectors. The chair proposed that a simple guidance document / notes should be prepared to be used in conjunction with ECDIS Chart 1. This would enable mariners to confirm that their systems were using the correct PL and were portraying the information correctly. He proposed that there was not a need for a new check dataset. HB noted that ECDIS systems must be able to display which PL edition it is using. This is an IMO performance specification. KI proposed that both methods should be available i.e. displayed by the ECDIS and on Chart 1. The meeting agreed that there was a need for some guidance notes on this. (*See associated action*)
- HSSC7/50 IHB to ensure that the ENCWG is kept informed on the outcome of the IENWG work item related to the revision of the EU Marine Equipment Directive. TP reported that the IENWG maintain a Product Database (MarED) which contains information about authorized equipment to be installed on EU flagged merchant vessels according to the European Marine Equipment

Directive. The IENWG is a subsidiary of the Inter-Regional Coordination Committee (IRCC) and identify EU activities and processes on matters of interest to Hydrographic Offices (HOs).

5. Review of the ENCWG Documents and Work Activities

5.1A. ENCWG Terms of Reference

The meeting reviewed the WG ToRs. The Chair reported that S-66 had been added to the WGs responsibilities at the HSSC7 meeting and needs to be included into the WGs ToRs. A new edition of S-66 is under preparation to bring it up to date with changes that have taken place over the past 6 years.

5.2A S-52 - Specifications for Chart Content and Display Aspects of ECDIS.

The Chair outlined the current status of the timeline for the retirement of PL3.4. As was previously agreed by the NCSR1 meeting, the existing ECDIS upgrades should have been completed by Aug 2016, however after a request from industry, NCSR3 agreed to extend the date to August 2017.

The chair reported that, notwithstanding the earlier discussion about the postponement of Edition 4.0.0 of the PL coming into force, the ENCWG had held a Sub-WG meeting to discuss a number of issues that had been raised by OEMs implementing the new edition of the PL and changes that has been made to S-64. These items will be presented later in the meeting for discussion and approval. (See also agenda item 5.6A).

5.3A S-57 - IHO Transfer Standard for Digital Hydrographic Data

The Chair reported that papers had been submitted that will require discussion and possible extension to the UOC and/or ENC Encoding Bulletins. These items will be discussed later in the meeting.

5.4A S-58 - Recommended ENC Validation Checks

RF reported that the TSMAD29 meeting agreed that a new edition of S-58 should be prepared to address the inconsistencies reported to the meeting. Its completion is necessary in order to start implementing the mandated critical checks referenced in section 1.3. During the review, additional issues relating to spatial overlaps have been raised by CARIS. These must be resolved before the document can be progressed.

HA reported that the definitions in S-58 and the terms in ISO were not well matched and this had caused some inconsistencies which needed to be resolved. Following a short breakout group meeting to review the spatial operators and associated definitions, the group recommended that the changes proposed in the CARIS paper should be implemented and a new edition of the document should be produced. (*See associated action*)

5.5A S-62 - List of Data Producer Codes

TP reported that the S-62 document is generated from the database which is part of the Registry application developed by Barrie Greenslade. A new Registry application has been developed by KHOA which does not include the S-62 database and applications. The ENCWG will need to liaise with the S-100WG about the future of the S-62 database and Producer Code list generation application. Possible solutions could be to either develop a new standalone application or to include the application as part of the new Registry application (as was the case with the old Registry). (*See associated action*)

5.6A S-64 - IHO Test Data Sets for ECDIS

The Chair reported that a Task Group meeting had taken place during February to resolve a number of inconsistencies (mainly clarifications) that had been reported. The meeting reviewed the list of issues and proposed clarifications that had been discussed during the February meeting and invited members to comment and provide input. Following further discussion and a few minor modifications, the meeting approved the list

which is listed under Annex A. It was agreed that a redline document showing all changes would be drafted. (*See associated action*)

KI proposed that additional text should be included to indicate that the new minor clarification version will not affect the current PL Edition 4.0.0 implementations. This was agreed by the meeting.

The Chair noted that a comment document provided by JRC had been received after the Task Group meeting and needed to be discussed / agreed by the ENCWG:

Proposal for 3.1.6 - to "Add the procedure of setting a display category as OTHER" - was agreed.

Proposal concerning 3.3.4 c) (CS UNWHAZ05) to Correct to the procedure which triggers the change into STANDARD display was agreed.

Proposal concerning 3.3.7 recommending that there should be guidance on the location of contour labels, and how far apart they should be. The spatial object could be long or short and can't be the determining criteria. The PL has a mandatory symbol that should be used. There are no rules about the location where they should be placed. It was decided that the placement of contour labels should be up to the manufacturer. Furthermore it was decided to not correct the graphic at 3.3.4, but rather include an explanatory note. (*See associated action*)

Proposal concerning 3.3.10 relating to "Spot sounding" was rejected. It was decided to include a note in the beginning of S-64 to provide information about switching on viewing groups. (*See associated action*)

Proposal concerning 3.3.11 to correct to the procedure which changes portrayal into STANDARD mode was not agreed.

Proposal concerning 3.6.8.1 that the incorrect cell was being loaded needs further investigation. (*See associated action*)

Proposal - 4.4 a). The Chair noted that this item had been discussed and agreed at the February Task Group meeting. This was also agreed by the meeting.

Proposal that 4.4 c) (should be 4.4 b). The comment was agreed in principal. It was decided to include a note stating that in the digital version it is "17" but in the printed version, it should be "16.4"

Proposal at 5.1 concerning the lack of a presentation symbol for point bridge objects (and several other objects) was not accepted.

5.7A S-65 - ENCs: Production, Maintenance and Distribution Guidance

The chair reported that S-65 falls under the remit of the ENCWG. This publication was last updated in April 2012 and needs to be brought into line with new developments that have been introduced over the past years. It was agreed that this work should be progressed by a sub-group.

5.8A S-66 - Facts about Electronic Charts and Carriage Requirements

The chair reported that S-66 had been added to the ENCWG responsibility during the HSSC7 meeting. The current edition was published in January 2010, and although it is mainly advisory, an updated edition needs to be produced. It was proposed that this should be progressed by a joint RENC group.

5.9A Presentation of Non official data boundary line.

The chair noted that Transas had submitted a paper to the February Sub-WG meeting proposing that boundary lines (i.e. barbed wire symbol) should be portrayed last (i.e. drawing priority) so that they appear on top of all

other objects (i.e. move the display priority from 3 to 9 so that it displays on top of everything else). This was agreed in principle but there were different opinions on how to implement it. It was decided to include 2 graphics in S-64; one showing the current situation and the other showing what will be shown in the next edition when the display priority is changed. (*See associated action*).

5.9B Isolated danger symbol in un-surveyed areas

HP reported that Navtor identified an issue with the S-64 plots for navigational hazards which were located in un-surveyed areas (UNSARE) in chapter 5 (Detection and Notification of Navigational Hazards). The plots in S-64 Ed 4.0.1 show objects detected as navigational hazards displayed as isolated dangers (i.e. magenta cross) and highlighted with a yellow indication. This is not in line with the current requirements in S-52 Presentation Library 4.0.1. On investigation it was found that this requirement was unintentionally dropped from S-52 when the action was taken to remove linear depth areas from the CSP back in 2004. The investigation found that those OEMs who had the same result as the screen plot in the published S-64 Ed 3.0.1 have created and maintained their software as an iterative process throughout time; while those who had established their software baseline after publication of S-52 Presentation Library 3.3 or later claimed that S-64 Ed 3.0.1 has screen plot mistakes.

It was agreed that to alter S-52 would be a major change in version so the pragmatic approach was taken to include both presentational plots in S-64 with a note explaining that either graphic is acceptable (until such time that the S-52 PL can be updated). S-64 will then need to be updated to show only the correct graphic. It was agreed that this should be implemented as a clarification. (*See associated action*).

5.9C MAGVAR symbol for line features

See change proposal at agenda item 6.4.

5.9D Issues with Omnidirectional lights

During the February TG 1 meeting, it was reported that the change to omnidirectional lights included in S-52 Pres Lib edition 4.0 were causing serious side effect. These were mainly caused by the change to make provision for a new presentation style, (i.e. a circle around the light location for “major” lights (i.e. lights having a nominal range of >10NM)). This is different from the flare used previously for all lights. The chair proposed that there were two issues to consider. The first issue is on some of the smaller scale ENC where there are many “major” lights, the portrayal of multiple circles is causing clutter. The second issue is the lack of a center point on lights where there is no base object displayed in the ECDIS to which a mariner can plot a bearing. The Chair proposed that this could be resolved by changing the classification for major lights. He proposed to change the classification of a major light as one having a nominal range of 15 NM rather than 10 NM, as is currently the case. It was noted that this may not achieve the desired result, and a better option might be to introduce an attribute for defining a “major light” – it was noted that this had already been included in S-101. There was discussion on introducing a point in the center of the omnidirectional light circle, and it was agreed that an ENC Encoding Bulletin should be drafted advising encoders to include a light base structure for lights on land with a nominal range >10NM. The Encoding Bulletin was drafted and approved by the WG during the meeting. (Post-meeting: The Encoding Bulletin has been published as EB No. 59).

Decision: it was finally decided to not implement any changes to S-52 until sufficient tests have been conducted.

RF noted that a new S-58 test would have to be developed once a final decision has been reached.

5.9E Possible dangerous situations with selecting Safety-Contour and Safety-Depth

Proposed to change the PL SCP for UDNHAZ05. The Chair reported that the IEC 61174 document (Annex M) states that isolated danger symbols should consider soundings that are deeper than the safety contour but less than the safety depth. HP proposed that soundings that are shallower than the safety depth but deeper than the

safety contour, should get a yellow highlight (i.e. there needs to be yellow box around black soundings). He proposed that this will require a change to the viewing group for navigational hazards.

Following further discussion and several opposing views by WG members, it was agreed that the SAM proposal needs further consideration by the ENCWG members. HP to look into the implications for S-64.

6. ENCWG Proposals

6.1 Extended use of NEWOBJ for V-AIS

Germany presented their requirement to encode a “generic” Virtual AIS Aid to Navigation (INT1 – S18.1) to indicate the corners of wind farms using the approved encoding for NEWOBJ. Currently S-57 - Use of the Object Catalogue (UOC) doesn’t have an appropriate way of doing this. HB proposed that a possible solution may be to use a pier to pier relationship. It was decided that this is a portrayal issue and the general opinion was that a special purpose virtual AIS encoded by a NEWOBJ should be used. (*See associated action*).

6.2A Depiction of Light Characters and Object Names

BSH reported that they had encountered problems when trying to encode and depict light characteristics and object names for offshore wind turbines and wind farms. Although information is available via pick report, BSH propose that the mariner needs information about LIGHTS that is easily assessable (e.g. the name of the wind turbines and the name of the wind farm in a readable form directly on the display). There are currently no lookup-up tables in S-52 to show the object name of a wind farm and BSH recommended that provision should be made in the S-52 PresLib Ed. 4.0.1 (Part I App. E) and the S-52 PresLib Ed. 4.0.1 (Part I App. F) to cater for this.

The meeting agreed with the proposal and with the amendment that this be extended for wind turbines that are not visually conspicuous. The meeting also accepted that a test should be included in S-64 to check that text descriptions for lights in the same geo-location do not overlap. (*See associated action*).

6.3 ECDIS Presentation Problems with IEC_61174_Ed.4.0 and IHO Pres Lib 4.0.(1)

The chair noted that the paper, which had been discussed at the February Task Group meeting, described a possible dangerous situation when selecting a safety depth which is deeper than the safety contour in an ECDIS. Isolated dangers would not display as it’s the safety contour which is used in the CSP. It was agreed that OEMS should be made aware of the issue.

6.4 Change Proposal concerning MAGVAR – Navtor.

The Chair reported that the paper submitted by Navtor highlighted that the MAGVAR symbol on linear magnetic variation objects is causing confusion for mariners because the (triangle) symbols are offset from the line geometry and do not respond to pick report. The meeting agreed to proposals 1 and 2 concerning the removal the offset symbol and implementation of a new symbol. The meeting agreed that this can’t be implemented as a clarification and should go into the next edition of the S-52 Presentation Library. (*See associated action*)

6.5 Portrayal of light characteristics for sector lights and shorter character string

Norway reported that after the implementation of the Preslib 3.4 it was no longer possible to visualize light characteristics of sectored lights and this information could only be accessed using the pick report. The paper proposed that there should also be a selectable option to display the light characteristics for the sectored lights, and the character string returned by the LITDSN function should be shortened to reduce clutter. The meeting agreed with the first proposal in principle and agreed to change the S-52 LIGHTS06 CSP text to provide the mariner with the ability to show sector light descriptions if they wish. However the second proposal for shortening the light description was not supported, with S-4 clause B-472 being cited as the authoritative specification for abridging light description. (*See associated action*).

6.6 Artificial Structures

Italy reported that they have a requirement to encode a unique artificial structure (MOSE) at the entrance of Venice lagoon, for water flow control during abnormally high tides and request advice on how best to encode them. The structure is currently being encoded as UNSARE (unsurvey area) / SLCONS (Shoreline construction) and also include a CTNARE (Caution area) area. When the structure is completed, they propose to encode it using DRGARE (Dredged area), GATCON (Gate) and CTNARE area; attribute INFORM with a brief explanation of the structure. IC-ENC advised Italy of the encoding currently used in their ENCs for the Thames barrier, and it was agreed that DRGARE and CTNARE is sufficient; and the GATCON object is not required for this structure, as the structure has no impact on navigation when in the “normal” position. FR and AUS suggested not to encode a GATCON as the gate will only be raised a few days a year. They consider a DRGARE and a CTNARE are sufficient

6.7 Additional Validation Checks

Italy proposed some new S-58 checks (discussed during a specific S-58 break-out session). The proposed new check to remove M_QUAL object from LNDARE object or amend CATZOC to U was accepted in principle.

The proposed new check to remove M_SREL objects from LNDARE objects of geometric primitive area was not accepted. JW and CM noted that the UOC does not prohibit to encode M_SREL on LNDARE and that some surveys such as lidar extend on the LNDARE . (*See associated action*).

6.8 Above Water Buildings

Indonesia reported that they have a requirement to encode buildings (villages/houses) that are above water in ENC. They had made a proposal to the 11th CSPCWG meeting and this had resulted in provision being made in the draft edition 4.6.0 of S-4 (at section B-370.9). Although the NCWG has produced paper chart symbolization for this, there is no guidance in S-57 or S-52 for portrayal. After discussion, the meeting concluded it was not necessary to create a new object class, and a BUAARE object of type area could be used. It was agreed that an Encoding Bulletin should be compiled to provide guidance on how built-up areas that extend over navigable water should be encoded. A draft Encoding Bulletin was compiled during the meeting and accepted by the S-57 Maintenance Sub-WG and the full ENCWG meeting. The new Encoding Bulletin will be posted on the IHO web site once S-4 Edition 4.6.0 has been published. (Post-meeting: S-4 Edition 4.6.0 was subsequently published in April 2016 and the Encoding Bulletin has been published as EB No. 61).

7. General Topics

7.1 Input into the next IHO Strategic Plan

The Chair reminded the meeting that CL 17/2016 requested HSSC WGs to submit any proposals to update the Strategic Plan. This must be done before 1 July 2016. The current Strategic Plan is complex and has been difficult to implement, and the CL invites WG members to submit any proposals to update the Strategic Plan. The strategic plan is available from the IHO web site (www.ihodata.int/letters/documents/basic/documents).

7.2 HSSC Work Programme

The Chair invited WG members to review the ENCWG Work Programme which is part of the overall HSSC Work Programme. He noted that the new ENCWG program had inherited items from the old TSMAD and DIPWG Working Groups. Work Items A.1, B.1, C.1, C.1 and E.1 were all currently the focus of activity by the Working Group. As for WI G.1, the International Electrotechnical Commission (IEC) had recently completed a new edition of publication 61174 which addressed changes to S-52 and to the PresLib. Items H.1 and I.1 were being addressed as required.

7.3 Outcomes from NCSR 3

The Chair highlighted the IHB paper reporting on the 3rd session of the IMO NCSR Sub-committee meeting which took place in March 2016. NCSR considered two submissions related to ECDIS which are of relevance to the WG. The IHO reported on the request by industry to extend the transition period for upgrading existing ECDIS systems to meet the revised set of IHO standards by one year. As reported earlier, the date will now be until 31 August 2017. There was also a report and discussion on the wide variations in the skills of “certified ECDIS users” and the lack of awareness concerning the need for software maintenance and requirements aboard ships. The meeting noted the report.

8. Any Other Business

IC-ENC (EH) reported on the discussion on overlapping ENC cells that took place at the 6th WEND working group meeting that took place between the 8th and the 10th March 2016 in Stavanger, Norway. Tests were carried out for overlapping cells which have either; the same scale and same usage band; the same scale and a different usage band; or a different scale but are in the same usage band. In some cases some alarming results were obtained from ECDIS using overlapping data. It was observed that some of the most problematic overlaps occurred when cells had a different navigational purpose but the same compilation scale. EH proposed that the issues of overlapping data can only be resolved by producing nations working together. IC-ENC (EH) asserted that ECDIS OEM's should not be expected to solve the problem using software fixes. Furthermore it is beyond the remit of RENCs to arbitrate in overlapping areas where there are political connotations. It was agreed that an ENC Encoding Bulletin should be drafted advising encoders that data having different Navigational Purpose and the same compilation scale should not overlap. The Encoding Bulletin was drafted and approved by the WG during the meeting. (Post-meeting: The Encoding Bulletin has been published as EB No. 60). (*See associated action*).

9. Review of Meeting Actions.

The meeting reviewed the list of actions compiled during the meeting. The final actions list is included at Annex A.

10. Date and Venue of Next Meeting.

Following an offer from Italy, it was agreed that the next meeting would take place in Genoa, Italy during the week starting 20 March 2017 (to be confirmed).

11. Close of Meeting.

The Chair thanked the Japan Hydrographic and Oceanographic Department for the excellent hosting arrangements and for their kind hospitality, all of which was greatly appreciated. He also thanked all the meeting participants who had travelled long distances for their work and contributions to the meeting.

Annex A**List of Actions / Tasks**

Main Meeting Actions			
Action No	Reference	Description	Responsible Member
ENCWG1/1	HSSC 7/11	Update the ENCWG page on the IHO web site to include new vice Chairman	TP
ENCWG1/2	HSSC7/16	Produce updated edition of S-66, for consideration by the HSSC8 meeting.	IHB
ENCWG1/3	HSSC7/38	Draft paper proposing the use us Chart 1 and guidance notes for mariners to check their systems against.	TM
ENCWG1/4	5.4A	S-58 SubWG to completed Draft Edition for circulation to the full WG in time for submission to HSSC for approval.	RF
ENCWG1/5	5.5A	Liaise with the S-100WG concerning the future of the S-62 database, interfaces and document generating application.	TM/JP
ENCWG1/6	5.6A	Draft a new minor redline edition of the S-64 document and circulate to the WG for final approval. Add note in S-64 to provide clarification on the placement of contour labels. Include a note in the beginning of S-64 to provide information about switching on/off viewing groups. Check that the correct cell is being loaded for S-64 check 3.6.8.1.	TM
ENCWG1/7	5.9A	Presentation of Non official data boundary line. Prepare 2 graphic for S-64 showing the display priority for boundary lines (between official and non-official data). One showing the current situation and the other showing what will be shown in the next edition when the display priority is changed from 3 to 9.	HP
ENCWG1/8	5.9B	Isolated danger symbol in un-surveyed areas. Include additional diagram and note explaining that both graphics are acceptable. Draft text to go into S-64 (TM). Produce additional graphic (HP) so that both cases – i.e. to show un-highlighted and highlighting versions.	TM/HP
ENCWG1/9	5.9D	Carry out test and prepare a plot to determine if the 10NM to 15NM and center point will work.	KI
ENCWG1/10	6.1	BSH to investigate whether a special purpose buoy would	BSH

		satisfy their AIS requirement for wind farm boundary corner, and resubmit their proposal to the NCWG for the possible development of an appropriate symbol.	
ENCWG1/11	6.2A	Add test to S-64 for this and include the change to S-52 Preslib 4.1 LUT to add OBJNAM for Wind turbine and OSPARE.	TM
ENCWG1/12	6.4	Remove the offset for the magnetic variation symbol on linear MAGVAR objects – for the next PL edition.	TM
ENCWG1/13	6.5	Change S-52 LIGHTS06 CSP text to make provision the selectable display of sector light descriptions.	TM
ENCWG1/14	6.7	New S-58 validation check to remove M_QUAL object from LNDARE object or amend CATZOC to U.	RF
ENCWG1/15	8	Formulate questions for OEMs regarding potential consequences of reclassifying an overlap to include 'Same Scale, Different Usage Band'.	TM/CIRM
	Actions from S-52.S-64 Sub-WG Meeting		
ENCWG1-subWG/1	IHO ENC WG news letter	Note: Outreach activity. Action: Keep industry informed and connected with activities that affect them.	TM / All
ENCWG1-subWG/2	e-nav agenda item	Note: Items relating to S-mode and other related e-nav issues Action: Call for ENCWG members to send in any E-nav work related issues to the ENCWG.	TM
ENCWG1-subWG/3	NCWG	Note: Radio activated AtoN new symbology and encoding guidance Action: Need to develop a new value for "category of anchorage" for "Refuge areas"	TM / JW
ENCWG1-subWG/4	Encoding bulletins	Develop Encoding Bulletins for: <ul style="list-style-type: none">• Omni directional lights without light structures;• Houses over water;• ENCs in different Navigational Purpose but with same scale;	JW
ENCWG1-subWG/5	IHO Check dataset	Instructions check ECDIS legend for edition number. Action: Write guidance paper for OEMs to add to user guides	TM
ENCWG1-subWG/6	ENCWG01 Paper 05.9A (Presentation of Non official data	The is a need to include clarification in S-52 to ensure that non official data boundary always displays over non-ENC data. Actions: Add two screen shots to S-64 for both current and	TM / HP /KI

	boundary line) [Transas]	future cases. S-52 PresLib 4.1 change text to treat presentation like North arrow.	
ENCWG1-subWG/7	ENCWG01 05.9B Isolated danger symbol in un-surveyed areas [Furuno]	Proposal: S-52 preslib 3.3 and 3.4 was published with an error. Missing LNDARE and UNSARE from UDWHAZ. Agreed by meeting. Action: Add two screen shots to S-64 for both cases - current and future. S-52 Preslib 4.1 - add features back into the UDWHAZ CSP	TM / HP
ENCWG1-subWG/8	ENCWG01 - 05.9C (MAGVAR symbol for line features) [Navtor] ENCWG0106.4 Change ENCWG1-subWG/1Proposal – [Navtor]	Note: MAGVAR symbol used for linear features has an offset. Proposed to change offset: This was agreed. Action: S-52 Preslib 4.1 Change LUT entry for MAGVAR Line to use pointSY(MAGVAR01) which does not have an offset	TM
ENCWG1-subWG/9	ENCWG01 05.9D Issues with Omnidirectional lights [Peiponen]	No agreement was reached. Transas to create screen shots of 15NM and 10NM in different geographic regions send to ENCWG for approval Work out stats for 20,000 > 10NM and 7,000>15NM	KI
ENCWG1-subWG/10	ENCWG01 05.9E Possible dangerous situations with selecting Safety-Contour and Safety-Depth [WSAM]	Note: IEC 61174 allows the SC to be set shoaler than the SD. This creates a potentially dangerous situation as the UDWHAZ uses the SC to detect isolated dangers. It was agree to work by correspondence to improve this. UDWHAZ CSP to be updated to compare the feature VALSOU with the “largest value of either the ‘Safety Contour’ and the ‘Safety Depth’” To be agree by correspondence – to determine what symbol should be to displayed in the ENC when the SC is shoaler than the SD S-52 Preslib 4.1	TM/HP
ENCWG1-subWG/11	ENCWG01 06.1 Extended use of NEWOBJ for V-AIS [Elsner]	BSH to work with NCWG on encoding	BSH
ENCWG1-subWG/12	ENCWG01 06.2 Depiction of Light Characters and Object Names [Elsner]	Note: Text descriptions for lights in same geo-location must not overlap. ECDIS anomaly identified by BSH. Action: Add test to S-64 as it is already a requirement in S-52 4.0 S-52 Preslib 4.1 change LUT to add OBJNAM for Wind turbine	

		and OSPARE	
ENCWG1-subWG/13	ENCWG01 Paper 06.3 ECDIS Presentation Problems with IEC_61174_Ed.4.0 and IHO_Pres Lib 4.0(1) [??]	Note: No Paper - TM emailed KH reporting that there is a problem with IEC 61174 edition 4.0	Done
ENCWG1-subWG/14	ENCWG01 06.5 Portrayal of light characteristics for sector lights and shorter character string	Note: Sector light descriptions don't display in ECDIS. This was Agreed Action: Change S-52 LIGHTS06 CSP text to allow OEMs the ability to show sector light descriptions if they wish.	TM
ENCWG1-subWG/15	ENCWG01 06.6 Artificial Structures [Tirone]	Note: Encoding advice from ENCWG is to capture CTNARE Action: JW to check UOC and report back to the next meeting.	JW
ENCWG1-subWG/16	ENCWG01 06.7 Additional Validation Checks [Tirone]	Note: proposal to add validation checks. Action to be addressed by S-58 sub WG.	RF
ENCWG1-subWG/17	ENCWG01 06.8 Above Water Buildings	Note: Need for new rules in S-4. Cannot use a NEWOBJ feature as it must be specified by the IMO and affects safety of navigation which cannot adequately be encoded by any existing object class for use in an S-57 data set. Action: Use existing S-57 feature GW to offer advice, create encoding bulletin and work with RF to create test in S-58	JW
ENCWG1-subWG/18	IC-ENC presentation on Overlaps	Note: Report on overlaps needs to be resolved> Action: Develop encoding bulletin for overlapping ENCs in different navigational purpose with same scale.	JW

Annex B

Agenda

Document Number Prefix	Agenda Item	Agenda Item / Document Title
1. Opening and Administrative Arrangements		[Mellor/JHOD]
ENCWG01	01A	List of Documents
ENCWG01	01B	List of Members and Meeting Participants
2. Approval of Joint Agenda		[Mellor]
ENCWG01	02A	Agenda
3. Matters Arising		[Mellor]
ENCWG01	03A	Minutes of TSMAD-29 (Ottawa)
ENCWG01	03B	Actions from TSMAD29/DIPWG7 (Ottawa)
4. Matters Arising from HSSC-7 (Busan)		[Mellor]
ENCWG01	04A	HSSC Actions for ENCWG
5. Review of the ENCWG Documents and Work Activities		[Mellor]
ENCWG01	05.1A	ENCWG - ToRs
ENCWG01	05.2A	S-52 - Specifications for Chart Content and Display Aspects of ECDIS (including its components).
ENCWG01	05.3A	S-57 - IHO Transfer Standard for Digital Hydrographic Data (including its components);
ENCWG01	05.4A	S-58 - Recommended ENC Validation Checks;
ENCWG01	05.5A	S-62 - List of Data Producer Codes
ENCWG01	05.6A	S-64 - IHO Test Data Sets for ECDIS.
ENCWG01	05.7A	S-65 - ENCs: Production, Maintenance and Distribution Guidance
ENCWG01	05.8A	S-66 - Facts about Electronic Charts and Carriage Requirements
		Papers Arising from ENC Sub WG – Feb 2016 (IHB, Monaco)
ENCWG01	05.9A	Presentation of Non official data boundary line
ENCWG01	05.9B	Isolated danger symbol in un-surveyed areas
ENCWG01	05.9C	MAGVAR symbol for line features
ENCWG01	05.9D	Issues with Omnidirectional lights
ENCWG01	05.9E	Possible dangerous situations with selecting Safety-Contour and Safety-Depth
		[WSAM]
6. ENCWG Proposals		[Mellor]
ENCWG01	06.1	Extended use of NEWOBJ for V-AIS
ENCWG01	06.2	Depiction of Light Characters and Object Names
ENCWG01	06.3	ECDIS Presentation Problems with IEC_61174_Ed.4.0 and IHO_Pres Lib 4.0.(1)[??]
ENCWG01	06.4	Change Proposal - Navtor
ENCWG01	06.5	Portrayal of light characteristics for sector lights and shorter character string
ENCWG01	06.6	Artificial Structures

ENCWG01	06.7	Additional Validation Checks	[Tirone]
ENCWG01	06.8	Above Water Buildings	
7. General Topics			[Mellor]
ENCWG01	7.1A	Input into the next IHO Strategic Plan	[Mellor]
ENCWG01	7.2A	HSSC Work Programme	[]
ENCWG01	7.3A	Outcomes from NCSR 3	[?]
8. Any Other Business			[Mellor]
9. Review of Meeting Actions			[Mellor]
10. Date and Venue of Next Meeting			[Mellor]
11. Close of Meeting			[Mellor]

Annex C
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