## **ENC Standards Maintenance Working Group meeting 7**

Wellington - New Zealand - Mon 21st Nov - Tuesday 22nd Nov 2022

## **Final Record**

NOTE: the following Record is ordered by Agenda Item number and not in the order of Papers as included in the timetable for the meeting (ENCWG7-02.1).

Agenda Items in red are Items that are not included in the posted ENCWG7 Agenda and Timetable.

Decision numbers highlighted in **grey**. Action numbers highlighted in **blue**.

Agenda Item	Торіс	Presenter
-	Opening welcome NZ	
	- The <b>Hydrographer of New Zealand</b> , Mr Adam Greenland, welcomed	
	participants to the combined 7 <sup>th</sup> ENCWG/S-101PT9 meeting. Staff	
	from Toitū Te Whenua Land Information New Zealand then provided	
	a traditional Māori welcome.	
-	Introductions to the ENCWG	Chair
	- The <b>ENCWG Chair</b> , Mr Tom Mellor, welcomed all participants to the	
	much anticipated first face to face meeting of the ENCWG for 2 years.	
	- He thanked Toitū Te Whenua Land Information New Zealand LINZ for	
	hosting and for the excellent facilities and arrangements that had	
ENCWG7-02.1	been put in place to support the meeting.  Draft Agenda	Chair
ENCVVG7-U2.1	- The <b>ENCWG Chair</b> tabled the ENCWG Agenda and timetable, which	Citali
	was accepted without amendment. [Decision ENCWG7/02]	
ENCWG7-03.1	Minutes of last meeting & progress on actions	IHO Sec
21101107 03.1	- <b>IHO Sec</b> (Yong Baek) tabled the draft report from the ENCWG6	(Yong)
	remote meeting, which was accepted without amendment. [Decision	(101.8)
	ENCWG7/03]	
	- <b>IHO Sec</b> reported on the progress on actions from NCWG6, stating	
	that most actions had been completed; and summarized remaining 5	
	ongoing actions (06-3, 06-4, 06-6 and 06-10). ENCWG Members were	
	encouraged to provide any progress on these actions to the IHO Sec	
	[Action ENCWG7/04]	
ENCWG7-03.2	Review of HSSC decisions and actions	IHO Sec
	- <b>IHO Sec</b> (Yong Baek) summarized the HSSC14 decisions and actions	(Yong)
	affecting ENCWG, in particular the endorsement of UOC Ed 4.3.0, S-58	
	Ed 7.0.0, and S-65 Annex B Ed 1.0.0. It was noted that HSSC had also	
	approved the development of a NE of S-64 (Agenda 04.3 and 05.1);	
	and remaining actions from HSSC would be covered under Agenda items 03.3, 04.1, 04.9.	
ENCWG7-03.3	ENCWG to propose amendments to its TORs (HSSC14/42)	Chair
LINCWO7-03.3	- Amendments proposed by the <b>ENCWG Chair</b> – new Procedures vii and	Citali
	viii.	
	- Concern was raised over the reference to S-101PT, which will require	
	amendment when Ed 2.0.0 of S-101 is published and responsibility for	
	S-101 is moved to the ENCWG. It was decided to remove the	
	reference to S-101PT from Procedure viii. [Actions ENCWG7/07,	
	ENCWG7/08 (Chair)]	
ENCWG7-04.1	IHO S-67 Mariners' Guide to use of ENC data in ECDIS (HSSC14/40)	Chair
	- The <b>ENCWG Chair</b> reported that the DQWG has agreed on the	
	proposed way forward as suggested by the ENCWG (consolidation of	
L	S-66 and S-67 into a new section 5 within S-66; and a new section 6	

- for cyber-security guidance). It was noted that the current draft as submitted to the meeting did not include the S-67 information as "Section 5", however the **Chair** reported that this will be corrected during finalization of the document.
- There was some confusion in the meeting as to the intended Publication number to be assigned to the document. The **Chair** stated that the intention is to have the finalized document designated as S-67, which will be titled *Mariners' Guide to the Use of ENC Data in ECDIS*.
- The proposed structure for S-67 Mariners' Guide to the Use of ENC Data in ECDIS as contained in the draft submitted to ENCWG7 was approved. [Decision ENCWG7/09]
- As stated in Actin HSSC14/40, the Chair stated that the final draft needs to be ready for HSSC15 (due date 7 weeks before HSSC15). The meeting agreed that a draft version of the document would be submitted to the ENCWG by correspondence for final review 2 weeks before the HSSC15 deadline. A Drafting Group (UK (lead), SE, IEC, PRIMAR, IIC, BR, IHO Sec) was formed to prepare this draft. [Action ENCWG7/10]
- IHO Sec (Jeff Wootton) recalled previous HSSC Actions from some years ago regarding a future review of S-66, and questioned whether these Actions should be investigated for consideration of the New Edition of S-67. [Action ENCWG7/11]
- Review of IMO MSC.circ.1503 will also be required to see if there is anything that can be included in S-67, and if there are changes that may impact on this MSC.circ, then IMO will need to be notified.
   [Action ENCWG7/12]
- Should S-67 incorporate some information about S-100? The meeting agreed that this is not the time to be doing this. Would likely need to be a separate document.
- IC-ENC (Tom Richardson) questioned if the List of flag States and contacts (current S-66 Section 2) should be removed. [Action ENCWG7/13]

## ENCWG7-04.2

Skin Of the Earth (SOE) display issue update

- The **ENCWG Chair** and **IHO Sec** (Yong Baek) provided a verbal update (no Paper submitted) on this issue.
- Survey conducted and confirmed that there were a number of manufacturers (3 OEMs and one not an OEM) that have the same problem. Indication provided by these manufacturers as to how long it would take to rectify the situation and promulgate to vessels. Based on these results, it was proposed that existing procedures with Data Producers and RENCs should remain in place for an extended period of time. [Action ENCWG7/14]
- Contact will be maintained with affected manufacturers on their progress in promulgating system patches to customers.
- **IIC** (Jonathan Pritchard): Is this overkill? The **Chair** responded that even though this is only a small number of manufacturers, this is a large part of the market.
- The **Chair** reiterated that although the display may be incorrect the ECDIS Alarms/Indications still operate normally.
- Requires an S-58 Check (noting that a Check has already been included in most validation software). DK (Richard Fowle): Needs to be reflected in the UOC, then can go in S-58. [Action ENCWG7/15]
- IEC (Hannu Pieponnen): If we do this, do we need to update S-64?
   Chair: Needs to be included in S-64 so that it will be included in S-164; and any future Type Approval will ensure that the system does

Chair/IHO Sec (Yong)

	not have this problem. Also noted that this is a HSSC decision,	
	therefore we have a requirement to do this (see Agenda Item 04.3).	
ENCWG7-04.3	S-64 reformatting and new SOE test (HSSC14/38)	
ENCWG7-05.1	Paper 05.1:	SevenCs
21101107 03.1	- <b>SevenCs</b> (Holger Bothien) reported that a number of issues had been	(Holger)
	identified in the S-64 TDSs.	(110.801)
	- Draft changes have already been made by SevenCs to the impacted	
	datasets and supplied to <b>IEC</b> (Hannu). Hannu: Have the SCAMIN	
	issues identified in the paper been fixed? Holger: Not sure but can	
	check. Tom: Seems that there is still some work to be done to fix the	
	SCAMIN issues. Hannu: For the PRELMN issue will need to also	
	amend the corresponding plot. [Decision ENCWG7/16] [Action	
	ENCWG7/17]	
	<ul> <li>Tom passed on appreciation for identifying these issues.</li> </ul>	
	Paper 04.3:	UK (Andrew)
	- Timeline is probably too ambitious. <b>Chair</b> : Have previously gone to	
	OEMs to have a chance to review changes to S-52. This could be done	
	with the new version of S-64, however would delay development and	
	would not be completed before HSSC15.	
	- <b>IEC</b> (Hannu): Not in favour of the reformatting. Should be done when the full package is ready (in line with priorities). <b>Chair</b> : Advance	
	notice could be provided to OEMs via CIRM.	
	- Need volunteers to do the development work. Nobody volunteered.	
	Chair: could be a problem with S-100. [Action ENCWG7/18]	
ENCWG7-04.4	S-57 issues updates	IHO Sec (Jeff)
LIVEWO7 04.4	- <b>IHO Sec</b> (Jeff) reported that all identified issues related to S-57 that	1110 300 (3011)
	have been raised have been submitted as Papers to this meeting.	
	However, it has been noted that changes to the S-101 DCEG related to	
	the encoding of date ranges in S-101 may result in an inconsistency in	
	how this information is encoded in S-57 and S-101, which may impact	
	on ECDIS performance during the dual-fuel period. This potential issue	
	requires further investigation and will be reported on in the future as	
	required.	
ENCWG7-04.5	ECDIS Cyber Security Guidance	Chair
	- <b>Chair</b> : Opinions of the WG sought as to guidance within the document	
	that needs further work. [Action ENCWG7/19]	
	- Work is required for data that is downloaded from the cloud etc. <b>IEC</b>	
	(Hannu): IEC have specified a "gateway" (IEC Publications UR E26 and	
	UR E27) through which any data is remotely transferred. [Action	
	ENCWG7/20]	
	- Intention is to submit to HSSC15 for endorsement and inclusion in the	
ENION COT OF S	New Edition of S-67 (Agenda 04.1). [Action ENCWG7/21]	Chin
ENCWG7-04.6	S-65 HDENC automation	China
	- Paper presented by <b>China MSA</b> (Lin Fang).  ID (Mohammad Oisthi Amarona): What is the resolution of the	
	- <b>ID</b> (Mohammad Qisthi Amarona): What is the resolution of the bathymetric data and the contour interval used. China: 1:5000 scale	
	(1 metre resolution as included in the Paper).	
	- IIC (Jonathan): Noted that there is an algorithm included in S-98 for	
	the "auto-generation" of the safety contour from gridded (S-102)	
	bathymetry.	
	- Chair: Need to ensure that the auto-generated safety depth is going	
	to result in a "less safe" result than that generated by the ENC	
	production system. <b>SevenCs</b> (Holger) noted that the display of the S-	
	102 safety contour is a display issue only – the anti-grounding	
	functionality will still utilize the gridded bathymetry.	
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	<ul> <li>Action requested: PRIMAR (Svein Skjaeveland): Is it appropriate to state that this should be implemented for reasons of economy?         Chair: Did not think that this was really the point – just that the contours can be created with minimal cartographic intervention.     </li> <li>FI (Mikko Hovi): Noted that the paragraph in the recommendation already exists in S-65 Annex A. It was confirmed that it is only the last sentence and the bullets that are proposed to be added. China MSA suggested that the last bullet was not required and it was pointed out that the first 2 bullets are additionally covered by Validation Checks.</li> <li>Chair, US and DK supported the recommendation. [Decision ENCWG7/22] [Action ENCWG7/23] [Action ENCWG7/24]</li> </ul>	
ENCM/67.04.7		C 52 C 1
ENCWG7-04.7	Issues with ECDIS Chart1/S-52 clarifications	S-52 Sub-
ENCWG7-05.2	Paper 05.2:	Group
	<ul> <li>SevenCs (Holger) presented proposals to make changes to ECDIS Chart 1.</li> <li>IIC (Hannu): Did not think that there was any requirement to do anything. Holger: Did not think the ECDIS Chart 1 properly serves the purpose that it is meant for. [Decision ENCWG7/25]</li> </ul>	
	Paper 04.7:	
	<ul> <li>IEC (Hannu) presented the Paper from ENCWG6 related to Agenda Item ENCWG6-04. Noted that the duplicate M_COVR issue as reported by Holger was also included in this Paper. [Action ENCWG7/26]</li> </ul>	
ENCWG7-04.8	S-57 to S-101 Conversion	S-57 to S-101
ENCWG7-04.14	Paper 04.8:	Conversion
	<ul> <li>The S-57 to S-101 Conversion Sub-Group Co-Lead (Christian Mouden) presented the report of the Sub-Group, highlighting the publication of S-65 Annex B Edition 1.0.0 in May 2022.</li> <li>New SG members welcome. [Decision ENCWG7/27]</li> <li>IHO Sec (Jeff) reported on progress in the development of Edition 1.1.0 of S-65 Annex B, which is aligned to the draft Edition 1.1.0 of the S-101 DCEG.</li> <li>VTC meeting of the Sub-Group is planned for late January /early February 2023.</li> </ul>	Sub-Group Leads (Christian/ Jonathan)/IHO Sec (Jeff)
	<ul> <li>Paper 04.14:         <ul> <li>ID (Qisthi) gave a presentation on the Indonesian experience in S-57 to S-101 conversion for the S-57 to S-101 Trial Conversion for Malacca/Singapore Straits ENCs project. [Decision ENCWG7/28]</li> <li>It was noted that the conversion process was undertaken using an older version of the S-57 to S-101 Converter and the output was aligned to S-101 FC Edition 1.0.0. [Action ENCWG7/29]</li> <li>IHO Sec (Jeff) commended on the work and findings; and reported that the subsequent publication of S-65 Annex A aligned to later versions of the S-101 DCEG and FC should resolve the findings raised as issues in the report.</li> </ul> </li> </ul>	ID (Qisthi)
ENCWG7-04.9	S-101 to S-57 Conversion ( <i>HSSC14/41</i> )	IHO Sec (Jeff)
ENCWG7-04.9 ENCWG7-04.11	<ul> <li>IHO Sec (Jeff) presented an initial draft document concept for S-101 to S-57 conversion guidance. [Decision ENCWG7/30]</li> <li>It was reported that from the initial work done it was expected that the manual intervention required to convert from S-101 to S-57 would be significantly less that when converting from S-57 to S-101; and as such source database configuration for the "dual-fuel" transition period would likely benefit Data Producers if it was configured to S-101.</li> </ul>	ino sec (Jell)

	<ul> <li>Development of the guidance document is in the early stages and is ongoing. Expected initial draft estimated to be completed end of first quarter 2023. Anticipated to be ready for submission to HSSC16 (2024) after Sub-Group review.</li> <li>It was proposed that the document is assigned the IHO Publication number S-65 Annex C. [Decision ENCWG7/31] [Action ENCWG7/32]</li> </ul>	
ENCWG7-04.10	IHO-SGP lab Project update – S-57 input data, Conversion Tools, S-101 ed 1.1	S-57 to S-101
	- The S-57 to S-101 Conversion Sub-Group Co-Lead (Jonathan	Conversion
	Pritchard) reported that the main issue with the project is resources	Sub-Group Co-
	(hardware/software; people; test data). [Action ENCWG7/33]	Lead
	- He further reported that he will be holding discussions with Parry Oui	(Jonathan)
	(IHO-Singapore Lab General Manager) next week to discuss the	(Soria charry
	process, resources, objectives and project plan.	
ENCWG7-04.12	S-57 UOC changes	IHO Sec (Jeff)
LINCVIG 7-04.12	- Nothing significant to report. See also Agenda Item 04.4.	ino sec (sen)
ENCWG7-04.13		Vice-chair
ENCWG7-04.13	S-58 issues updates The Mise shair (Bishaud) reported on shapped to the S-58 TDS	
	- The <b>Vice-chair</b> (Richard) reported on changes to the S-58 TDS	(Richard)
	resulting from publication of S-58 Edition 7.0.0. A couple of minor	
	issues are yet to be addressed. All ENCWG members are welcome to	
	have a look at the revised TDS and supply any feedback. [Action	
	ENCWG7/34]	
	- See also Agenda Item 05.5.	
ENCWG7-04.15	S-62 Update	IHO Sec (Jeff)
	- <b>IHO Sec</b> (Jeff) provided a verbal report on the status of S-62, including	
	a summary of the revised management processes for maintaining the	
	S-62 Data Producer Codes since the migration to the IHO GI Registry,	
	Producer Code Register has been completed.	
	- It was requested that for downloading the Data Producer Codes from	
	the Register, a more machine-readable format could be made	
	available. [Action ENCWG7/35]	
	- Further to this request, it was suggested that in the future a portal	
	(URL?) for direct download of the Data Producer Codes into the end-	
	user system could be developed. [Action ENCWG7/36]	
ENCWG7-04.16	S-63 Update	IIC (Jonathan)
	- <b>IIC</b> (Jonathan) presented specifically on the purpose and future of S-	
	63 Appendix 1 – S-63 Test Dataset. Focus was on the relationship	
	between Appendix 1 and S-64 and the future relationship to S-164. It	
	was proposed that a Clarification version of S-63 is produced to	
	specify that Appendix 1 to relate only to those tests which are not	
	duplicated in S-64; and remove all references to the former DPSWG.	
	- The WG agreed that no Clarification version of S-63 was required at	
	this time. [Decision ENCWG7/37]	
	- The future of the "Part of S-63 Appendix 1" document - Test Data	
	Implementation Guide (2004) was discussed, with the WG agreeing	
	that this document should be reviewed. [Action ENCWG7/38]	
ENCWG7-05.3	Dangerous Cargo Berths	NL (Herman)
	- <b>NL</b> (Herman) reported that there is currently no encoding guidance	
	for dangerous cargo berths in S-57 and S-101. [Decision ENCWG7/39]	
	[Action ENCWG7/40]	
	- IC-ENC (Tom): Noted that S-131 includes much more detailed	
	information; and utilizes the attribute categoryOfCargo to do this.	
	[Action ENCWG7/41]	
ENCWG7-05.4	Transporter Bridge Clearance	IC-ENC (Tom)
	- IC-ENC (Tom) presented on the confusion that exists for the encoding	, ,
	of the vertical clearance attributes for transporter (and some other)	
	type of bridge.	
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	<ul> <li>It was noted that there are only a little more than 30 of these bridges in the world.</li> </ul>	
	- The proposal was that the height of the bridge gantry should be	
	populated in VERCOP and the moving transporter platform height in	
	VERCCL. Concern was raised that this may not be understood by the	
	mariner, with the alternative proposed that these bridges should be	
	encoded as fixed bridges. [Decision ENCWG7/42] [Action	
	ENCWG7/43] [Action ENCWG7/44]	
ENCWG7-05.5	RCID Reuse Clarification	IC-ENC (Tom)
	- IC-ENC (Tom) reported that this issue had resulted in datasets not	
	loading in ECDIS and therefore mitigating action was required, citing	
	clarification to the S-57 Main document, Part 3, clause 2.2. [Decision	
	ENCWG7/45] [Action ENCWG7/46]	
	- IEC (Hannu): Suggested that the S-58 Check 3 needed to be amended	
	to clarify that the Check applies to the Base dataset and all its updates	
	(that is, within a single Edition of the dataset). [Action ENCWG7/47]	
	- <b>FR</b> (Christian): Would be a burden as Producers would need to check	
	all Updates against the base cell and all previous Updates.	
	- T-Caris (Hugh Astel): Noted that it is the concatenation of RCNM and	
	RCID (subfield NAME) that has to be unique.	
	- It was further determined that this issue will need to be reported to	
	the S-100WG as it may need to be reflected in S-100 Part 10a. [Action	
	ENCWG7/48]	
ENCWG7-05.6	Comments on S-65 Annex A	UK (Andrew)
	- <b>UK</b> (Andrew Richardson) presented on the proposed clarifications	
	required to S-65 Annex A and the accompanying redline of the	
	document.	
	- Item 2: Needs to clarify that ZOC B needs to be complete seafloor	
	coverage ("high-level" ZOC B).	
	- Item 3: <b>IHO Sec</b> (Jeff): Difficult to put in the changes in context from	
	the presentation given that the entire paragraph is not included.	
	[Action ENCWG7/49]	
	- The amended redline proposed changes were submitted to the WG	
	on the final day of the meeting. Changes approved. [Decision	
	ENCWG7/50] [Action ENCWG7/51]	
ENCWG7-05.7	Light Sector Encoding Proposal	UK (Andrew)
	- <b>UK</b> (Andrew) presented on the issue of long light sectors that may be	,
	visible to mariners not displaying in ECDIS when the ENC containing	
	the light is not included in the SENC or the cell is not included in the	
	displayed data. He reported that this may impact on ENC cell	
	scheming and proposed two possible work-arounds to resolve the	
	issue until a more technical solution can be determined.	
	- The Paper generated a lot of discussion. It was suggested that if	
	proper voyage planning was undertaken all datasets relevant to the	
	voyage, including datasets containing aids to navigation that could	
	impact the voyage, would be provided as part of the service provision.	
	It was also noted that there was currently an open Portrayal GitHub	
	issue where discussions were taking place.	
	- <b>IHO Sec</b> (Jeff) raised the ENC scheming currently being discussed	
	within the WENDWG as part of the implementation of the WEND100	
	Principles.	
	- <b>FR</b> (Christian) stated their preference for Option 1 – do nothing at this	
	time, which was the general feeling of the meeting given the open	
	GitHub issue. [Decision ENCWG7/52]	
ENCWG7-05.8	MSC.530(106) and S-61	
	- The <b>Chair</b> reported on discussions with the IHO Secretariat on a	
	question that had been passed on as a result on the drafting of the	

	new IMO Resolution MSC. 530(106) relating to the revision of the ECDIS Performance Standards to recognize S-100 within SOLAS carriage requirement regulations. The enquiry was from the IMO Drafting Group and related to clauses within the draft Resolution that reference Raster Charts and the RCDS Mode. While it was agreed that the clauses were erroneously retained in the draft and could therefore be removed, the retention of the text at Annex A of S-61 -	
	Product Specification for Raster Navigational Charts (RNC) (1st Edition, January 1999), which is a direct copy of Appendix 7 of the ECDIS	
	Performance Standard (at that time) was questioned.	
	- It was determined that this text should be replaced with a reference	
	only to Appendix 7 of the Resolution. [Action ENCWG7/53]	
ENCWG7-07.1	Date and Venue of next Meeting	Chair
	- At the kind invitation of Indonesia, it was agreed that the next	
	meeting of the ENCWG (ENCWG8) would be held in Lombok,	
	Indonesia, in conjunction with the 11 <sup>th</sup> meeting of the S-101PT, for the	
	week commencing 25 September 2023. [Decision ENCWG7/54]	