

LIST OF **DECISIONS** & ACTIONS ARISING FROM S-100WG7 2022

- Final -

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
Opening and Administrative Arrangements			
1	Members	[Action 7/01] S-100WG are invited to update the list of S-100WG members and contact details.	<i>Permanent</i>
2	Agenda and Timetable	[Decision 7/01] S-100WG approved the agenda and associated timetable.	
Matters Arising and HSSC Working Group Reports			
3.1 3.2	S-100WG6 (Ref. Action 6/06)	[Action 7/02] S-129PT Chair to submit the timeline of Ed.2.0.0 of S-129 product specification compliant to Ed.5.0.0 of S-100 taking into consideration the S-100 Roadmap.	March 2023 Completed
	GML (Ref. Action 6/19)	[Action 7/03] SHC(lead), RM and JP to draft the implementation guidance for Part 10b and S-100WG Chair to circulate the draft guidance to the S-100WG for approval.	TSM9(March 2023) Completed(WG8-6.18)
	GML (Ref. Action 6/21)	[Action 7/04] RM to submit Paper 4.3D to NIPWG for their comments and resubmit to S-100WG for consideration at the next meeting.	Completed(NIPWG action-6)
	Units of Measure (Ref. Action 6/22)	[Action 7/05] IHO Sec/KHOA to amend the GI Registry to be consistent in terms of fields and terminology with S-100 2a-4.2.11 and to expose a Units Of Measure Codelist for users.	TSM9 and S-100WG8 Done
	S-100 Infra (Ref. Action 6/26, 27,28,36,34,53)	[Action 7/06] Chair/KHOA/IHO Sec to check the S-100 Infrastructure for the S-100 PCB, UML Models and S-100 GitHub Schemas and updates as required.	TSM9 Done
	129PT Part15 (Ref. Action 6/41)	[Action 7/07] DPCG (lead by JP (IIC)) to submit the redline version of the Guidance Doc. for implementation of the S-100 Security Scheme to the S-100WG for approval.	On going
	Part15 (Ref. Action 6/42)	[Action 7/08] S-100WG Chair to report the resource requirement on the IHO Sec in regard to supporting the S-100 Security Scheme.	TSM9 Close(S-100 SSPT)
	Machine Readability (Ref. Action 6/46)	[Action 7/09] EM to provide a guidance to PS developers for their action to be compliant with Ed 5.0.0 of S-100.	TSM9 S-100WG8 Done
3.3 3.4	HSSC Report / Actions (Ref. HSSC14/11)	S-100WG noted the HSSC14 actions assigned to the S-100WG. [Action 7/10] S-100WG Project Teams to align product specifications (S-101, S-102 and S-129 as a priority) to Edition 5.0.0	HSSC15/ S-100WG8 Close

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
	<i>(Ref. HSSC14/25)</i>	<p>of S-100 by 2023 and estimate the possible associated costs needed to support this alignment, and report to S-100WG.</p> <p>[Action 7/11] S-100WG Chair/S-164 Sub-Group to address and demonstrate, through a security risk analysis on the application of S-100 Part 15, whether the need for SENC distribution is still justified in the S-100 world.</p>	HSSC15/ S-100WG8 On going
	<p><i>(Ref. HSSC14/32)</i></p> <p><i>(Ref. HSSC14/45)</i></p> <p><i>(Ref. HSSC14/63)</i></p> <p><i>(Ref. HSSC14/73a)</i></p>	<p>[Action 7/12] S-100WG Chair to maintain the Dual Fuel Concept for S-100 ECDIS and provide updates to the next HSSC meeting.</p> <p>[Action 7/13] S-100 Chair to review the initial description of “Maritime Services in context of e-navigation” and to provide them to NIPWG for further action if appropriate.</p> <p>S-100WG noted analysis made by the HSSC ISO 9001 Cell on the development of Ed. 2.0.0 of S-101 and the monitoring of the progress on Portrayal Catalogue development.</p> <p>[Action 7/14] S-100WG Chair in liaison with HDWG to report the progress on the interface connection between the Hydrographic Dictionary database and the IHO GI Registry through the Concept Register to the next HSSC meeting.</p>	<p>HSSC15/ S-100WG8 Done(agenda 8-6.2)</p> <p>HSSC15 Done</p> <p>HSSC15 Done</p>
3.5	Council Report	<p>S-100WG noted the revised Roadmap of S-100 timeline and recognized the prioritized S-100 based product specifications and critical framework such as S-98, S-128 and S-164.</p> <p>S-100WG recognized that Ed.1.0.0 of S-164 should be published by end of 2023.</p> <p>Further discussion regarding responsibility of Interoperability Catalogue (IC) production which is required to test Ed 1.0.0 of S-98.</p> <p>[Decision 7/02] S-100WG agreed to set up a S-98 Sub-Group under S-100WG and submit this request to HSSC for approval.</p>	
3.6	S-101 Report	<p>[Decision 7/03] S-100WG approved Ed 1.1.0 of the S-101 Product Specification main document and Data Classification and Encoding Guide, and agreed to proceed with the approval for the S-101 Ed 1.1.0 FC, PC and Validation through S-100WG Circular Letter in early 2023.</p> <p>S-100WG noted the report on ISO 9001 cell and suggest to amend the attendees of the meeting in Monaco in September 2022 and the updated report to be posted on the S-100WG7 meeting page accordingly.</p> <p>S-100WG noted that the Ed. 1.1.0 of S-101PS is likely compliant to Ed 5.0.0 of S-100, however Ed 1.2.0 of S-101 is planned to fully compliant with Ed.5.0.0 of S-100.</p>	

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
3.6	S-101 Report	<p>S-100WG noted that Exchange Set for the TDS questioned by NIWC. S-100WG Chair pointed to the S-164 Sub-Group to discuss gaps for the tests against Ed.5.0.0 of S-100. Metadata part 17 should be reviewed at the next TSM.</p> <p>[Action 7/15] S-100WG Chair to issue the S-100WG circular letter for approval Edition 1.1.0 of S-101 FC, PC and Validation.</p> <p>S-100WG recognized that S-101PT to establish a feedback mechanism via a dedicated S-101 Resources web page.</p>	April 2023 Completed
		<p>[Decision 7/04] S-100WG approved S-101PT to meet face to face twice during 2023 and focus on preparation of Ed 1.2.0 of S-101 and then moving to Ed. 2.0.0 of S-101 based on feedback received.</p> <p>[Action 7/16] S-100WG Chair to include achievement of S-101PT in 2022 and its plan to develop the operation version Ed. 2.0.0 of S-101 by 2024 in S-100WG report to HSSC15.</p> <p>[Decision 7/05] S-100WG agreed to the proposal set up a GI registry Project Team, subsidiary of S-100WG dedicated to the development and maintenance of the GI Registry and tasked to report its activity at S-100WG the meetings.</p> <p>[Action 7/17] S-100WG to request the HSSC to establish the GI Registry Project Team, subsidiary of the S-100WG.</p> <p>[Action 7/18] S-100WG members/Domain representatives to inform their intention to join the GI Registry Project Team to the S-100WG Chair/IHO Sec at earliest opportunity subject to HSSC approval.</p>	<p>HSSC15/ S-100WG8 Done</p> <p>HSSC15 (Closed)</p> <p>S-100WG8 (Closed)</p>
3.7	S-102 Report	<p>S-100WG noted the progress of S-102PS development moving toward Ed 2.2.0 of S-102; and the Github as a platform to develop the standard document.</p>	
3.8	S-121 Report	<p><i>Left blank intentionally</i></p>	
3.9	S-129 Report	<p>S-100WG noted the report of the S-129PT Chair presented at the meeting.</p> <p>S-100WG Chair suggested to the next Edition of S-129 should be an Ed.1.x.x for testing; and then going to the operational Edition 2.0.0 which is planned in 2024. Regarding delivery mechanisms for S-129 data from onshore services, the PT should consider potential bandwidth issues for the vessels.</p>	
3.10	S-128 Report	<p>[Decision 7/06] S-100WG noted the S-128 report presented at the meeting and agreed to present it as a joint S-100WG/NIPWG paper to WENDWG.</p> <p>S-100WG noted the mandate for the S-128 service to be provided to end user systems and recommended focus on the navigational purpose as defined in S-98 moving toward Ed. 2.0.0 of S-128 to NIPWG.</p>	

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
4.3	Management of External Resources	[Action 7/23] PRIMAR/IIC to submit a draft change proposal to the next TSM meeting.	TSM9 Done
4.4	Support File Revision Status	S-100WG noted the proposal. [Action 7/24] S-164 Sub-Group to consider the proposal and discuss it at the next TSM meeting. The outcome to be reported at the next S-100WG meeting.	TSM9/S-100WG8 (Closed)
4.5	Portrayal CRS for LineSymbol	[Decision 7/11] S-100WG approved the proposal adding the portrayal CRS to the CRS Types in the relevant Part of S-100.	Correction
4.6	Line Symbol Placement	S-100WG noted the proposal to add visibleParts to LineSymbolPlacement in the relevant parts of S-100 and recommended OEMs to participate in the test and re-submit the proposal if appropriate.	Extension
4.7	Alert Catalogue	After further discussion, the proposal was withdrawn.	Correction
4.8	Information type	[Decision 7/12] S-100WG approved the proposal for Part13 to add function HostInformationGetAssociatedInformationalIDs.	Correction
4.9	Spatial Relations	[Decision 7/13] S-100WG agreed to forward the discussion to the TSM and re-submit it to the next S-100WG if appropriate. It was also agreed that the results of discussions are to be forwarded to the S-101PT for their consideration in the S-101 data model. [Action 7/25] IHO Sec (TSSO) to provide feedback to S-101PT on the outcome of S-100WG discussions.	(Extension) S-101PT10 Done
4.10	Part13 align with FC model	[Decision 7/14] S-100WG approved the proposal to update Part 13 to align with FC model.	Correction
4.11	Table Index Part 10c	[Decision 7/15] S-100WG approved the proposal to reorganize the table numbers of Part 10c.	Clarification
4.12	Table Reference Part 10c	[Decision 7/16] S-100WG approved the proposal to change table reference in Part 10c as proposed.	Clarification
4.13	S100_Vertical AndSounding Datum	[Decision 7/17] S-100WG approved the proposal to move all references to S100_VerticalAndSoundingDatum (including in UML) from S-100 Part 17 to Part 10c. However it was agreed that this should be located at clause 10c-10 instead of 10c-9 as proposed in the Paper. 10c-10 is "Common enumerations and dictionaries". [Action 7/26] IHO Sec (TSSO) to apply changes to Part 10c and Part 17, noting the location in Part 10c as clause 10c-10.	Correction TSM9 Done
4.14	Editorial in Part10a	[Decision 7/18] S-100WG approved the proposed editorial changes in Part 10a.	Clarification
4.15	Clause Numbering Part10a	[Decision 7/19] S-100WG approved the proposed changes to fix clause numbering for Part 10a. S-100WG recognized the changes referenced in other parts of S-100 and some S-100PS for instance S-101. SevenCs(HB)/IHO Sec(TSSO) to reflect the changes to S-101PS accordingly.	Clarification
4.16	ISO/IEC8211	[Decision 7/20] S-100WG approved the proposal to add summary of ISO 8211 in Part 10a as proposed.	Clarification

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
4.17	Record Order ISO8211	[Decision 7/21] S-100WG approved in principle the proposal to introduce a general rules for the order of records in ISO8211 encoding in S-100 Part 10a and finalize it at the TSM9 in March 2023. [Action 7/27] DG, JP, TP and HA to work on concerns from the meeting and report recommendation to the next TSM.	<i>Extension</i> Closed
4.18	Scale Properties	[Decision 7/22] S-100WG approved the proposal to clarify the definition of scale properties at relations from feature objects to geometry as proposed to Part 3 and Part 10a of S-100.	<i>Clarification</i>
4.19	Schema namespace in XSD/XML	[Decision 7/23] S-100WG approved in principle the proposal to fix namespace issues in XSD and XML files used for portrayal and finalize it at the TSM March 2023. [Action 7/28] SevenCs, NIWC, T-CARIS, IIC to work further and submit a change proposal at the next TSM9 meeting.	<i>Correction</i> TSM9 Closed
4.20 4.20A	Primary association	S-100WG noted that the issue should be fixed and agreed to defer in-depth discussion. [Action 7/29] NIWC, SevenCs, IIC, T-CARIS to submit a change proposal taking into consideration both Papers 4.20 and 4.20A to the next S-100 TSM meeting in March 2023; and submit the outcomes to HSSC for approval if agreeable solution is made.	<i>Clarification</i> TSM9 Closed
4.21	Part 9a default line join style	[Decision 7/24] S-100WG approved the proposal to correct the Part 9a default line join style to match the default specified in Part 9 (Miter).	<i>Correction</i>
4	All Change Proposals	[Action 7/30] Proposers and/or IHO Sec(TSSO) to prepare a final redline version as approved during the meeting and IHO Sec(TSSO) to incorporate into the draft Edition 5.1.0 of S-100. S-100WG Chair submits the draft Ed.5.1.0 of S-100 to the S100WG via Circular Letter and then to HSSC15 for approval.	March 2022/ HSSC15 Closed
		<i>Left blank intentionally</i>	
S-98 Interoperability Specification			
5.1	S-98 Interoperability	[Decision 7/25] S-100WG noted that there were “ <i>unresolved comments</i> ” since Edition 1.0.0 of S-98 and tasked the S-100TSM to review and determine the way forward. [Action 7/31] S-100WG Chair to report the outcome and report the next version of S-98 to the next S-100WG meeting for approval.	TSM9 S-100WG8 Done
5.2	Portrayal Shared Edge	S-100WG recognized the issue presented during the meeting. [Action 7/32] S-100WG invited OEMs (NIWC, SevenCs, T-CARIS, Fruno) to discuss a way forward and report to TSM meeting.	<i>Clarification</i> Closed
		<i>Left blank intentionally</i>	
S-100 General Topics			
6.1	IMO ECDIS Performance	S-100WG noted the presentation of IHO Director (Kampfer) on the successful revision of IMO ECDIS performance standards approved by IMO MSC 106, Nov 2022. S-100 ECDIS will be legal to use after 1 January 2026 and from 1 January 2029 new systems must comply with the new IMO Resolution on ECDIS Performance	

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
6.1	IMO ECDIS Performance	<p>Standards (MSC.530(106)).</p> <p>IHO Director (Kampfer) encouraged IHO MS to achieve substantial coverage of S-101 and related products by 2026 and requested that active MS contribution in S-100 related WGs and PTs must be increased.</p> <p>Challenges to S-100 timeline: It was mentioned that operational standards, production tools and training courses etc were the key elements to achieve the planned timeline.</p> <p>S-100WG noted that Sweden in cooperation with other EU MS will submit a new input paper on the inclusion of route exchange to IMO NCSR10 in May 2023. IALA will share the message with their members.</p>	
6.2	Update S-100 Infra	<p>S-100WG noted the update plan of the S-100 infra system to be in line with S-100 Ed. 5.0.0; and invited KHOA to report the progress status at TSM9 taking into consideration the impact on the development of Product Specifications.</p> <p>S-100WG noted that Validation functions are to be considered in the S-100 tool kits.</p>	
6.3	Producer Code Register	<p>[Decision 7/26] S-100WG agreed to enable the S-100 Producer Code Register and endorse the inclusion of a management guideline for the Producer Code Register in S-99.</p> <p>[Action 7/33] IHO Sec/KHOA to submit a change proposal regarding S-100 Producer Code Register in Part2 of S-100.</p> <p>[Action 7/34] S-100WG invites KHOA to set the Producer Code Register up in the GI Registry operational. IHO Sec to announce its operational status to relevant domain representatives of S-100.</p>	<p>Jan 2023 On going</p> <p>Feb 2023 Completed</p>
6.4	GI Registry Guidelines (S-99 Annex A)	<p>S-100WG noted the progress made on the development of the guideline document for users of the GI Registry.</p>	
6.5	Concept Register/HD database	<p>S-100WG noted the progress on the interface between the Concept Register and HD database system by KHOA.</p> <p>[Action 7/35] S-100WG to report the progress on the interface between the GI Registry and HD database.</p>	<p>HSSC15 Done</p>
6.6	Data Coverage	<p>S-100WG noted the paper raised issues for management of extended coverage areas such as Radio or Rader coverage.</p>	
6.7	Part15 Identifiers & Procedures	<p>[Decision 7/27] S-100WG endorsed the implementation by the Scheme Administrator (SA) (IHO secretariat) of Part 15 using formalised identifiers for participants in the data protection scheme according to the proposed formats and only signed content in accordance with Part 15 for content distributed by the IHO secretariat.</p>	

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
6.7	Part15 Identifiers & Procedures	<p>[Action 7/36] IIC/IHO Sec/ PRIMAR to develop a guideline document to implement the digital certificate as proposed during the meeting and report it at the next S-100WG meeting.</p> <p>IIC announced that non-commercial application for the digital certificate will be released soon.</p>	S-100WG8 Done
6.8	Dataset Naming Convention	<p>S-100WG noted proposal to harmonise approach to S-1xx naming convention across S-1xx Product Specifications.</p> <p>[Action 7/37] IC-ENC to share the proposal with the NIPWG and TWCWG for their comments, and report the next TSM for further discussion; and submit to S-100WG8 for approval.</p>	TSM9/ S-100WG8 Closed
6.9	Dual Fuel	S-100WG noted the paper	
S-164			
		S-100WG noted the progress report presented by IIC(JP) and identified items and/or gaps needed to develop further.	
7.1		<p>[Decision 7/28] S-100WG agreed that TSM is to create one landing page for IHO S-164 and draft an initial package of Ed 1.0.0 of S-164 for review at TSM.</p> <p>[Action 7/38] S-100WG Chair to circulate the draft package of S-164 to S-100WG for endorsement and submit to HSSC for approval.</p> <p>The Ed. 1.0.0. of S-164 should include at least;</p> <ul style="list-style-type: none"> ● Landing page contents and links ● Up to date contents from existing S-64 and existing S-164 S-101 cells. ● S-98 interoperability considerations ● Test drafts for user selected safety contour, Part 17 service aspects and Part 15 authentication and (optionally) encryption. ● Documented Test data schemes, versions, scenarios and user manual ● Datasets packaged as edition 5.0.0 exchange sets (including specific FC/PC/IC) ● S-128 contents ● Initial Dual Fuel tests ● Test data in conformance with Ed 5.0.0 of S-100, draft where necessary <p>[Action 7/39] S-100WG Chair to submit the draft package of S-164 to HSSC for approval.</p>	<p>March 2023 Completed</p> <p>HSSC15 Completed</p>
S-100 Validation			
8.1	Validation	S-100WG noted the report presented by the S-100WG Chair; and noted that the S-100 Validation Checks will need to have a designated home that allows for ease of maintenance, either as its own specification or an Annex to S-100. The S100WG chair will note this as part of the report to HSSC (for example S-158 or Annex to S-100).	

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
8.1	Validation	[Action 7/40] Validation Sub-Group to develop S-100 validation document and submit the draft at the next S-100WG meeting for endorsement.	S-100WG8 Done
8.2	Validation workshop	<p>S-100WG noted that explanation of background, existing work and discussion around potential issues.</p> <p>[Action 7/41] S-100 Validation Sub-Group to update the validation diagram taking into consideration discussion during the meeting and report to the next TSM meeting for discussion.</p> <p>[Decision 7/29] S-100 Validation Sub-Group to work taking into consideration of related papers from the DQWG.</p> <p>[Action 7/42] S-100WG Chair to report the progress on the validation, with a focus on delivering in time for Edition 2.0.0 for S-104 and S-111, and request funding from the IHO Special Projects Fund for the validation work at the next HSSC meeting.</p>	<p>Feb.2022 Done</p> <p>HSSC15 Close</p>
8.2	Validation workshop	<p>[Action 7/43] S-100 Validation Sub-Group/IHO Sec to set up an IHO Github for the validation tasks.</p> <p>[Decision 7/30] Validation workshop organized by the S-100 Validation Sub-Group to be hosted in Middle of 2023 in Monaco.</p> <p><i>Left blank intentionally</i></p>	TSM9 Done
S-100 Test Bed Reports			
9.1	Test Bed	S-100WG noted the test bed report presented by KHOA/NOAA	
9.2	Test Bed	S-100WG noted the test bed report presented by PRIMAR	
		<i>Left blank intentionally</i>	
External Liaison Reports			
10.1	ENCWG	<i>Left blank intentionally</i>	
10.2	NCWG	Noted verbal report from the NCWG Chair.	
10.3	NIPWG	<i>Left blank intentionally</i>	
10.4	DQWG	<i>Left blank intentionally</i>	
10.5	ISO	<i>Left blank intentionally</i>	
10.6	OGC	<i>Left blank intentionally</i>	
10.7	IEC	Noted verbal report from the IEC/T80 Chair.	
10.8	IEHG	<p>S-100WG noted the presentation.</p> <p>S-100WG noted consideration on the inclusion of S-401 in S-98 data interoperability.</p>	
10.9	JCOMM/WMO	<i>Left blank intentionally</i>	
10.10	S-124PT	<i>Left blank intentionally</i>	
10.11	IALA	Noted verbal report from IALA technical representative.	
		<i>Left blank intentionally</i>	
Any Other Business			
11.1	Office bearers (Ref. HSSC14/103)	<p>IHO Secretariat reminded the Office Bearers that according the ROPs of WGs, elections of Chair and Vice-Chair are decided at the 1st meeting after ordinary sessions of the Assembly.</p> <p>[Action 7/44] Call for nominations need to be issued in advance of the next S-100WG meeting.</p>	<p>Sep. 2023 Done</p>

AGENDA ITEM	SUBJECT	ACTIONS (in bold, action by)	Remarks (as of 10 Nov2023)
		<i>Left blank intentionally</i>	
Date & Location of the next meetings			
12	Meetings	<p>[Decision 7/31] S-100WG agreed to hold its series of S-100WG meeting as followings.</p> <ul style="list-style-type: none"> - TSM-9: 7 - 10 March 2023 / Rep. of Korea - WG-8: 13 - 17 Nov 2023 / Singapore - TSM-10: Spring 2024 / Monaco - WG-9: Fall, 2024 / TBD 	