LIST OF DECISIONS & ACTIONS ARISING FROM HSSC-14

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AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
1.	**Opening and Administrative Arrangements**				
	Contact List	HSSC14/01	**IHO Member States** and **Stakeholders** to provide the IHO Sec. with their updates to the HSSC List of Contacts.	**Permanent**	Last update 3 Nov. 2022
	Attendance	HSSC14/02	**HSSC Members** to consider the possibility of limiting the number of their delegates at HSSC face-to-face meetings (up to 2 in addition to WGs' office bearers) and to register in accordance with the deadlines set up in the IHO CL announcing the meeting. In the case of remote events, additional attendance within the limits of the web platforms is encouraged.	**Permanent**	
2.	**Approval of Agenda**				
	Agenda and Timetable	HSSC14/03	**HSSC** approved the agenda and associated timetable.		Decision
3.	**Matters arising from Minutes of 13th HSSC Meeting**				
4.	**HSSC Administration**				
4.1, 4.2	Outcome of C-5, C-6 and A-3	HSSC14/04	**HSSC** noted the outcome of C-5 and agreed on the proposed way forward to address decisions and actions from A-2 and C-5 in preparation of C-6/A-3.		Decision
4.2, 5.1G	Maintenance of Roadmap for S-100 Implementation Decade -- Dual Fuel Concept / S-100 ECDIS Governance Document	HSSC14/05	**HSSC Chair** in liaison with **SG, Council's and IRCC's Chairs** to submit a proposal for an amendment to the Roadmap v2.0 adding an Annex 4 providing the Executive Summary of the Dual-Fuel Concept for S-100 ECDIS. **HSSC Chair** to include this proposal in his report to C-6.	**18 July 2022 (for C-6)**	See also Actions HSSC14/30 (under item 5.1G below) Complete

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
4.3	SPIs	HSSC14/06	**HSSC Working Groups / Project Teams Chairs** leading some SPIs, to report to the **HSSC Chair/Secretariat** on their SPIs values for 2022, including refined objective targets for 2026 if appropriate.	**15 January 2023**	
4.4	Joint IHO-Singapore Innovation and Technology Laboratory	HSSC14/07 (See also former HSSC13/34)	**HSSC** welcomed the report provided by the **Joint IHO-Singapore Lab** and noted a new potential project to create and test-bed S-100 ECDIS display functionalities for S-101 and S-102 datasets via the application of S-98 Ed. 1.0.0. **HSSC Members and Observers** willing to get involved in these projects to contact the **General Manager**. **Joint IHO-Singapore Lab** to report on these projects at the next meeting, in particular on research funding resources.	**End of June 2022** **HSSC-15**	Decision
4.5	Revision of IHO Resolutions following the introduction of S-100	HSSC14/08 (former HSSC13/05, HSSC12/20)	Following up PRO 2.3 submitted by the ROK at A-2, **HSSC** endorsed the recommendations made by the IHO Secretariat as listed in Doc. HSSC14-04.5A. **HSSC Chair** to submit the same recommendations to C-6 for endorsement, and then for adoption by **IHO Member States** (by IHO CL for all IHO Resolution except IHO Resolution xx/2023 on S-100 Roadmap incl. Dual Fuel Governance to be adopted at A-3).	**18 July 2022 (for C-6)** **C-6 (for A-3)**	Decision Complete (IHO CL 38/2022 and A-3 PRO1.1 refer)
5.	**Reports by HSSC Working Groups**				
5.1	**S-100 (S-100WG)**				
5.1A	S-100 matters	HSSC14/09	**HSSC** commended the S-100WG Chair for her report, the S-100WG members and expert contributors from industry for their hard work, (and agreed on the working group priority list 2022-23).		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.1A	S-100 Ed. 5.0.0	HSSC14/10	**HSSC** *endorsed* the framework of the proposed Ed. 5.0.0 of S-100, (pending finalization of xml schemas) **IHO Secretariat** to issue an IHO CL calling for the *approval* of Ed. 5.0.0 by IHO Member States, once the schemas are finalized according to the UML in S-100 Edition 5.0.0.	**August 2022**	Complete (IHO CL 45/2022 refers)
5.1A	S-100 Ed.5.0.0	HSSC14/11 (former HSSC13/16, HSSC12/07)	Following the adoption of Ed. 1.0.0 of S-98, **HSSC** tasked the **HSSC WGs** to consider aligning all product specifications and as a priority the following product specifications (identified in Ed. 1.0.0 of S-98) to Edition 5.0.0 by 2023 (S-101, S-102, S-104, S-111, S-122, S-123, S-124[1], S-127, S-129, S-131) and consider the need for any other S-100 based products out of the IHO remit (such as S-401 – *Inland ENC*, S-411 - *Ice information,* S-421 – *Route Plans*)[2] that are considered valuable to the S-100 Implementation Plan and advise accordingly.	**HSSC-15**	In progress
5.1A	S-100 Ed.5.0.0	HSSC14/12 (former HSSC13/17, HSSC12/08)	**WGs** developing S-1xx product specifications to estimate the possible associated costs needed to support this alignment, and report to the **HSSC and S-100WG Chair/HSSC Secretariat** in order to set up priorities.	**HSSC-15**	
5.1A	S-98 Ed. 1.0.0	HSSC14/13	**HSSC** *approved* the proposed Ed. 1.0.0 of S-98 in general. Noting the strategic nature of some concepts developed in S-98, **HSSC Chair** to *inform* the Council (and subsequently all IHO Member States) on the availability of Ed. 1.0.0 for implementation and testing.	**C-6**	Decision Complete (HSSC Report to C-6 and A-3 PRO 2.1 refer).

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[1] Subject to confirmation by IRCC.
[2] S-100WG/IHO Secretariat.

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.1A	S-164	HSSC14/14	With all the resources focused on the finalization of S-100 Ed. 5.0.0 and S-98 Ed. 1.0.0, **HSSC** noted the impact on S-164 and endorsed the need to establish a sub-group for its development.	**HSSC-15**	In progress. Dedicated discussion session during S-100WG7 meeting.
5.1A	S-100 Validation	HSSC14/15	For the same reasons as above, **HSSC** noted the slow progress on the development of a harmonized data validation process and associated catalogues across the S-100 framework and agreed on the establishment of a dedicated sub-group.	**HSSC-15**	In progress. Dedicated discussion session during S-100WG7 meeting.
5.1A, 5.1B	S-99, IHO GI Registry	HSSC14/16	**HSSC** endorsed Ed. 2.0.0 of S-99 - *Operational procedures for the organization and management of the S-100 GI registry.* **IHO Secretariat** to issue an IHO CL calling for the approval of Ed. 2.0.0 by IHO Member States.	**End of June 2022**	Decision Complete (IHO CL 39/2022 refers)
5.1B	IHO GI Registry	HSSC14/17	**HSSC** noted the upgrade path of the S-100 GI Registry to align to Edition 5.0.0 as well as the main activities and outstanding achievements carried out by the IHO Register Manager since HSSC-13.		Decision
5.1B, 5.5B	IHO GI Registry	HSSC14/18	**HSSC** noted the concerns raised by the HSSC ISO 9001 Cell on the resilience of the IHO GI Registry… … and invited the **IHO Secretariat** in liaison with **KHOA** and the **HSSC ISO 9001 Cell**, to consider the recommendations provided in Appendix 2 of Doc. HSSC14-05.5B for a reliable and more robust situation in the long term. **HSSC Chair** to mention this resilience issue in the report to C-6 and the proposed way forward.	**HSSC-15** **18 July 2022 (for C-6)**	Decision Complete (HSSC Report to C-6 refers)

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.1C	S-101	HSSC14/19	**HSSC** commended the **S-101 Project Team** for the work done so far and noted the challenges ahead.		Decision
5.1C	S-101	HSSC14/20	**HSSC Chair** in his report to C-6 (and also as a possible key message to be delivered at A-3) to raise the awareness of Council Members on the critical need to encourage IHO Member States and wider stakeholders to actively support the development of S-101 1.1.0.	**18 July 2022 (for C-6)**	Complete
5.1D	S-102	HSSC14/21	**HSSC** noted the results of the S-102 Impact Study and endorsed the proposed move towards a navigation implementation of S-102.		Decision
5.1D	S-102	HSSC14/22	**HSSC** *endorsed* the suspension of IHO Resolution 2/2007 for S-102 Ed. 2.2.0 until Ed. 3.0.0 to allow for iterative development to align with S-98, S-101 and S-104 (each of which are at a Ed. 1.0.0 stage).		Decision
5.1D	S-102	HSSC14/23	**HSSC** *endorsed* Ed. 2.1.0 of S-102. **IHO Secretariat** to issue an IHO CL seeking the *approval* by Member States of Ed. 2.1.0 of S-102 to be used for implementation and testing, calling for the approval of the proposed scoping move (S-102 used in navigation systems in priority) and including a call for the approval by Member States of the suspension of IHO Resolution 2/2007.	**End of June 2022**	Decision Complete (IHO CL 40/2022 refers)
5.1A	S-129	HSSC14/24	**HSSC** noted the new composition of the Project Team and agreed on the work plan towards Ed. 2.0.0.	**HSSC-15**	Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.1E	SENC	HSSC14/25 (former HSSC13/27)	**S-100WG** to consider the SENC delivery issues raised by France, add this work item in its work plan (as part of testing activities and the development of S-164) 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.	**HSSC-15**	
5.1F	S-121	HSSC14/26	**HSSC** noted the work in progress on S-121 and tasked the **S-100WG Chair** to take actions requesting that the www.s-121.com website, which is neither maintained nor supported by the IHO, is dismantled (all useful materials to be archived or re-used in the IHO registry or website as appropriate).	**End of September 2022**	Complete
5.1F	S-121	HSSC14/27 (former HSSC13/22, HSSC12/14)	**HSSC** encouraged the S-121PT, under the management of the **S-100WG Chair**, to pursue the development of Ed. 1.1.0 of S-121 in accordance with HSSC Rules of Procedures and IHO Resolution 2/2007 (submission to S-100WG, then HSSC for endorsement.	**HSSC-15**	Complete. S-121PT "on hold" pending higher priority tasks in the S-100 Implementation Roadmap.
4.2, 5.1A	Maintenance of Roadmap for S-100 Implementation Decade	HSSC14/28 (former HSSC13/08, HSSC12/05, HSSC11/09)	Noting the availability of a version-controlled Roadmap for S-100 Implementation Decade, **HSSC** agreed that the maintenance of the S-100 Master Plan is no longer necessary. **IHO Secretariat** to remove the S-100 Master Plan from the IHO website and archive it in S-100 history.	**End of June 2022**	Decision Complete
5.1G	Dual-Fuel Concept Governance	HSSC14/29	**HSSC** *endorsed* Ed. 1.0 dated 16 March 2022 (draft v10) of the *S-100 ECDIS Governance Document*, renamed "*Dual-Fuel Concept for S-100 ECDIS*".		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.1G	Dual-Fuel Concept Governance	HSSC14/30	**HSSC Chair** to *inform* **IRCC** at their next meeting on the availability of the *Dual Fuel Concept for S-100 ECDIS* (with comments/inputs welcomed if any) and to submit it to the Council for endorsement. If, and once endorsed by Council, **HSSC Chair** to support **Council Chair** to submit it at A-3 for the approval of Member States.	**IRCC-14** **18 July 2022 (for C-6)** **A-3** deadline for submitting proposals (**20 Dec. 2022**)	See also Action HSSC14/05 (under item 4.2 above) Complete (A-3 PRO 2.1 refers)
5.1G	Maintenance of Roadmap for S-100 Implementation Decade - Dual Fuel Concept for S-100 ECDIS Governance Document	HSSC14/31	**HSSC** tasked **S-100WG** to prepare an Executive Summary "Dual Fuel Concept for S-100 ECDIS" in liaison with Stakeholders (OEM, etc.) and provide to the **HSSC Chair** for being submitted as part of his report to C-6.	**End of June 2022**	See also Action HSSC14/05 (under item 4.2 above) Complete
5.1G	Maintenance of Dual Fuel Concept for S-100 ECDIS Governance Document	HSSC14/32	**HSSC** tasked the **S-100WG** to maintain the DF Concept for S-100 ECDIS and provide updates for endorsement as appropriate.	**HSSC-15**	
3, 5.1H	S-1OOP	HSSC14/33 (former HSSC13/04, HSSC12/19B)	**HSSC** noted the establishment of the S-1OOP (S-100 Open Online Platform), commended the ROK for their initiative and encouraged Member States to engage and provide test data. **HSSC** invited **KHOA** to consider the development of a basic "getting started guide".	**HSSC-15**	IHO CL 12/2021 refers
5.2 ENC Standards Maintenance (ENCWG)					
5.2	S-57, B-1, Annex A	HSSC14/34	**HSSC** endorsed the S-57 Draft Edition 4.3.0 dated 24 March 2022 of Appendix B-1, Annex A - *Use of the Object Catalogue for ENC*.		Decision
5.2	S-58	HSSC14/35 (former HSSC13/32)	**HSSC** endorsed the S-58 Draft Edition 7.0.0 dated 24 March 2022- *ENC Validation Checks*.		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.2	S-57 to S-101 Conversion Guidance, S-65	HSSC14/36	**HSSC** approved the S-65 Draft Edition 1.0.0 dated 11 May 2022 of Annex B - *S-57 ENC to S-101 Conversion Guidance*, for implementation and testing.		Decision
5.2	S-57, S-58, S-65	HSSC14/37	**IHO Secretariat** to issue an IHO CL calling for the approval of the new Editions of S-57 Appendix B-1, Annex A and S-58, and informing IHO MS on the publication of Ed. 1.0.0 of Annex B to S-65.	**End of June 2022**	Complete (IHO CL 39/2022 refers)
5.2	S-64	HSSC14/38	**HSSC** approved the proposal from the **ENCWG** to consider the development of a new Edition of S-64 to include additional tests for fixing the Skin Of the Earth issue. **HSSC CL** to be considered for intersessional approval.	**HSSC-15**	In progress
5.2	HD ENC	HSSC14/39	While noting the outcome of WENDWG-12, **HSSC** considered that the proposal for the introduction of a new SPI to monitor HD ENC production in the world was in the remit of the IRCC. **HSSC Chair** to comment on this matter at the next IRCC meeting.	 **IRCC-14**	Decision Complete
5.2	S-66, S-67	HSSC14/40 (former HSSC13/33, HSSC12/25)	**HSSC** agreed on the principles of merging S-66 and S-67 into a single IHO publication in the future, also aiming to incorporate mariner ENC and ECDIS related information papers, and tasked the **ENCWG** (lead) and the **DQWG** to undertake this process.	**HSSC-15**	In progress
5.2	S-101 to S-57 Conversion Guidance	HSSC14/41	Following recommendations from **France** and the **RENCs**, **HSSC** approved the introduction of a new task in the **ENCWG** Work Plan for the development of an encoding guidance for conversion from S-101 to S-57.	**HSSC-15**	In progress. Sub-Group renamed "ENC Conversion Sub-Group".

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.2	ENCWG TORs	HSSC14/42	As a consequence of new tasks related to the transition to S-101 allocated to the **ENCWG**, **HSSC** invited the **ENCWG** to propose amendments to its TORs.	**HSSC-15**	Complete
5.2	S-63	HSSC14/43 (former HSSC13/31, HSSC12/22)	**HSSC** agreed on the proposal from the **ENCWG** to go ahead with option 1 (See Doc. HSSC13-05.2B): "*No changes to IHO standards, create a new IHO ECDIS Cyber Security Guideline*" to manage risk when using ENC data. No new Edition of S-63.	**HSSC-15**	Guidance delayed due to Skin-of-Earth issues that need to be fixed. Decision
5.3 Nautical Information Provision (NIPWG)					
5.3A	S-100 System Architecture, IMO's Maritime Services	HSSC14/44 (former HSSC13/35)	Noting different expectations, **HSSC** welcomed the offer made by **NIPWG** in liaison with **S-100WG** to complement the S-100 System Architecture by a submission paper addressing the what/how/when the S-100 based products should work together in a future S-100 ECDIS environment.	**HSSC-15**	In progress with Canadian Coast Guard.
5.3A	Maritime Services, e-navigation	HSSC14/45 (former HSSC13/37, HSSC12/32, HSSC11/36)	**HSSC** tasked the responsible **HSSC WGs** [and will invite also the **IRCC/WWNWS-SC**] to review the initial descriptions of "*Maritime Services in context of e-navigation*" under their remit and to provide them to **NIPWG** for further action if appropriate. **NIPWG** to send reminders as appropriate.	**Permanent** **Deadline to be confirmed by NIPWG**	
5.3A	Maritime Services, e-navigation	HSSC14/46 (former HSSC13/38)	**HSSC** tasked **NIPWG** to act as the responsible IHO WG to monitor and contribute to the IMO Expert Group on Data Harmonization (EGDH).	**Permanent**	In progress (meeting with IMO Rep on 7 June)

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.3A	Scale Dependent (SD)/Scale Independent (SI)	HSSC14/47 (former HSSC13/40)	After having considered an IALA outline paper describing how S-201, S-124, S-125 may work together, **HSSC** tasked **NIPWG** to provide a paper discussing SD/SI data handling aspects.	**HSSC-15**	In progress
5.3A	S-125	HSSC14/48	**HSSC** approved the name change for S-125 from "*Navigational Services*" to "*Marine Aids to Navigation (AtoN)*".		Decision
			IHO Secretariat to change the name on the IHO website accordingly, and leave the content as is.		Complete
			HSSC tasked **NIPWG** in liaison with IALA to provide a timeline for the development of S-125.	**End of June 2022**	Complete
5.3A	S-100 Whole Picture	HSSC14/49 (former HSSC13/41)	**HSSC** welcomed the offer by **NIPWG** to develop an outline paper, in liaison with **S-100WG**, describing the whole S100 picture in close cooperation with stakeholders, inside and outside the IHO community and with IMO in particular.	**HSSC-15**	In progress
5.3A	S-12x (S-122, S-123, …)	HSSC14/50	**HSSC** noted the status report on the development of the new Edition of these Product Specifications to be aligned with S-100 Ed. 5.0.0 and the remaining challenges (Portrayal, etc.).	**HSSC-15**	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.3B	S-128	HSSC14/51	**HSSC** approved the S-128 draft Edition 1.0.0 dated 11 March 2022- *Catalogue of Nautical Products* for implementation and testing. **NIPWG** to provide amendments to the executive summary of the scope of S-128 for the Registry and the website (S-100 Products Specifications) to the **IHO Secretariat**, when appropriate. **IHO Secretariat** to issue an IHO CL informing the IHO MS on the publication of Ed.1.0.0 of S-128 and encouraging stakeholders (**Industry partners, RENCs**) on behalf of HSSC to establish S-128 test beds and share experiences with **NIPWG**.	**End of June 2022**	Decision Complete Superseded by HSSC Report to C-6
5.3B	S-128	HSSC14/52	**HSSC** advised **NIPWG** to liaise with **S-100WG** on issues identified regarding responsibility of stakeholders in producing and distributing S-128 and for **NIPWG** to provide an input paper to WENDWG13.	**WENDWG-13/HSSC-15**	Noted in agenda of WENDWG13, discussed at S-100WG7
7.1B	S-124	HSSC14/53	**HSSC** noted the progress made by the S-124PT under the WWNWS-SC in the development of S-124. **HSSC** agreed on the way forward (candidate Ed.1.0.0 to be directly submitted by the WWNWS-SC to HSSC for approval by correspondence).	**November 2022 /HSSC-15**	Decision
5.4 Nautical Cartography (NCWG)					
5.4A	From S-101 to Paper Chart	HSSC14/54a (former HSSC13/43)	**HSSC** noted the adoption of the Terms of Reference of the Baseline Symbology Project Team (led by CA) under the **NCWG** aiming to support the automated production of paper charts from S-101 data and requested to provide a project plan asap.	**HSSC-15**	In progress – discussed at NCWG8.

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.4A	IHO Registry	HSSC14/54b	**HSSC** invited the **NCWG/IHO Secretariat** to reconsider the need for the assignment of a domain for the symbology library in the HO Registry (existing HYDRO domain seems appropriate for the time being).	**HSSC-15**	Complete (no domain required at this time).
5.4B	Future of the Nautical Paper Chart	HSSC14/55 (former HSSC14/47)	**HSSC** noted the report by NCWG on the implementation of the recommendations on the Future of the Nautical Paper Chart endorsed by A-2/C-4. **HSSC Chair** to update C-6 on this implementation process.	**C-6**	Complete
5.4C	Guidelines for automated paper chart output from ENC	HSSC14/56	**HSSC** noted the offer from the **US** to lead a new task within the **NCWG** for establishing minimum guidelines for automated paper chart output from ENC. Noting that nothing prevents national HOs from developing bespoke solutions for the automated paper chart production from ENC content database meeting their national requirements, **HSSC** did not support a new task on **NCWG** however invited the **US** to keep the **NCWG** informed.	**NCWG-9**	Decision
5.4C	Guidelines for automated paper chart output from ENC	HSSC14/57	The **HSSC** noted the strong request from the **US** supported by some other IHO Member States (**AU, CA DK, DE, ID, JP**) by which the IHO does need to re-think what the Future of the Nautical Paper Chart will be. **HSSC Chair** to report at C-6 on this matter.	**18 July (for C-6)**	Complete
5.5 Data Quality (DQWG)					

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.5A	S-67	HSSC14/58 (former HSSC13/48, HSSC12/46)	**HSSC** welcomed the availability of the Spanish version of S-67 and invited Member States, to consider the possibility of translation of S-67 Ed.1.0.0.	**HSSC-15**	Chinese, Spanish and French version available
5.5A	Data Quality in existing S-57 ENCs	HSSC14/59 (former HSSC13/49, HSSC12/49)	**HSSC** encouraged **Member States** to start populating appropriate POSACC / SOUACC values in existing S-57 ENCs for relevant spatial objects in preparation of conversion to S-101 (iaw UOC 2.2).	**Permanent**	
5.5A	Guidelines from Survey to CATZOC	HSSC14/60 (former HSSC13/50)	**DQWG** to report on the progress in the development of Guidelines and Recommendations to HOs based on best practices to allocate CATZOC values (or S-101 ZOC values) from survey data qualified in application of the new Ed. 6.0 of S-44 - IHO Standards for Hydrographic Surveys. Liaison with other WGs/PTs needed before submission to HSSC.	**HSSC-15**	In progress
5.5A	Support to Crowdsourced Bathymetry	HSSC14/61 (former HSSC13/51)	**HSSC** noted that Guidance to be provided to the CSBWG will be a sub-set of the Guidelines from "Survey to CATZOC" (in preparation, see Action above).	**HSSC-15**	
5.5A	DQWG Office Bearers	HSSC14/62	Noting the vacancies at the position of DQWG Chair and Secretary, **HSSC** made a call in session inviting **HSSC Members** to nominate candidates with the risk that DQWG activities are put on hold (Chairpersonship interim by Vice-Chair for urgent matters only). **HSSC Chair** to report at C-6 on this issue.	**End of May 2022** C-6	Complete (DQWG Letter 02/2022 refers) Complete

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.5B	Application of ISO 9001 Principles	HSSC14/63	**HSSC** noted the outcome of the objective analysis made by the **HSSC ISO 9001 Cell** on the development of Ed. 2.0.0 of S-101 and agreed on the recommendations to monitor the progress on the Portrayal Catalogue.	**HSSC-15**	Portrayal Catalogue version 1.0.2 published November 2022.
5.5B	Application of ISO 9001 Principles	HSSC14/64	**HSSC Chair** to report to C-6 on the benefits of having this **HSSC ISO 9001 Cell**.	**18 July 2022 (for C-6)**	Complete
5.6	**Hydrographic Surveys Working Group (HSWG)**				
5.6	S-44	HSSC14/65	**HSSC** approved the proposal from the **HSWG** to enter a 2-year update cycle for the maintenance of S-44.		Decision
5.6	S-44 Ed. 6.1.0	HSSC14/66	**HSSC** endorsed the S-44 draft Edition 6.1.0 dated 28 March 2022- *IHO Standards for Hydrographic Surveys*. Noting the outcome of the HSWG's evaluation of the impact study, **IHO Secretariat** to issue an IHO CL calling for the approval of Ed. 6.1.0 by IHO Member States.	**End of June 2022**	Decision Complete (IHO CL 41/2022 refers)
5.6	C-13, Satellite-Derived Bathymetry	HSSC14/67	**HSSC** noted the creation of 2 Project Teams under the **HSWG**: - **C-13 MHPT** (Manual on Hydrography Project Team), - **SDBPT** (Satellite-Derived Bathymetry Best Practice Project Team).		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.6	C-13	HSSC14/68	**HSSC** agreed on the following way forward for the approval process of the next Edition of C-13: - **C-13 MHPT** of the HSWG will submit their work to the HSWG for endorsement when appropriate - **HSSC** to invite HSWG to consult IBSC and CBSC directly when appropriate during the revision process of C-13..., - **HSSC** to report to IRCC on this invitation at IRCC-14 seeking their endorsement on this direct liaison... - once the final proposed revised Edition of C-13 is ready, incl. inputs from CBSC and IBSC if any, **HSWG** to submit the final proposed revised Edition to **HSSC** for approval - once approved by HSSC, **IHO Secretariat** to publish the new Edition and keep the MS informed, as well as the IBSC and CBSC.		Decision Endorsed at IRCC-14

5.7 Tides, Water Level and Currents (TWCWG)

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.7		HSSC14/69	**HSSC** noted the report and commended the **TWCWG** for their achievements (S-104, revision of IHO Resolutions).		Decision
5.7	IAPSO, GLOSS	HSSC14/70	**HSSC** recommended **TWCWG** to liaise with IAPSO (and GLOSS) and develop synergies between entities.	**HSSC-15**	
5.7	TWCWG Meetings	HSSC14/71	**HSSC** recommended **TWCWG** to consider their meetings schedule in accordance with HSSC meetings submission deadline.	**HSSC-15**	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.8	**Hydrographic Dictionary (HDWG)**				
5.8	Hydrographic Dictionary S-32	HSSC14/72	**HSSC** noted the report of the **HDWG** and acknowledged the international recognition of the IHO Hydrographic Dictionary… …and invited **IHO Member States** to participate actively in the work of the HDWG.	**HSSC-15**	Decision
5.8	HD and Registry	HSSC14/73a (former HSSC13/63)	**HSSC** encouraged continuation of the testing effort of the S-32 IHO Hydrographic Dictionary database with the IHO GI Registry through the Concept Registry Domain Control Body.	**HSSC-15**	In progress (discussion at GI Registry Workshop Dec 2022)
5.8	Hydrospatial	HSSC14/73b	**HSSC** agreed that the term "hydrospatial" is not a technical term. Within IHO technical standards the term hydrography or other relevant disciplines should continue to be used. Hydrospatial should be considered a slogan which is used solely to promote hydrography and its associated aspects. Given this the term shall not be included in the Hydrographic Dictionary.		Decision
5.8	HDWG meeting	HSSC14/74	**HSSC** approved the principles of a formal in-person meeting likely in Europe by end of 2022.		Decision
5.9	**Maritime Autonomous Surface Ships (MASS) Navigation (MASS PT)**				
5.9	MASS	HSSC14/75	**HSSC** welcomed the status report from the MASS PT on phase 1 (discovery & reporting) and the intentions for phase 2 (gap analysis against all degrees of autonomy: in S-100 standards, in data protection scheme, in data update policy). Report incl. final recommendations expected at HSSC-15/-16.	**HSSC-15/-16**	
5.10	**Polygonal Demarcation of Global Sea Areas (S-130 PT)**				

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
5.10	S-130 PT	HSSC14/76	**HSSC** noted the progress made by the Project Team and the different milestones (Ed. 1.0.0 in 2023, Ed. 2.0.0 and dataset in 2024).	**HSSC-15/-16**	

6.	**Inter-Organizational Bodies**				
6.1	**IHO-IAG Advisory Board on the Law of the Sea (ABLOS)**				
6.1	C-51 - TALOS Ed. 6.0.0	HSSC14/77	**HSSC** noted the availability of the Chinese and Arabic versions of Ed. 6.0.0 of C-51 (TALOS Manual)… …and recommended that a simple caveat is posted on the IHO website (similar to the one for S-67).	**HSSC15**	
6.1	C-51 - TALOS Ed. 6.0.0	HSSC14/78	**HSSC** invited **ABLOS** to ensure that the new ABLOS website (https://www.ablos.org/) developed by the Danish Technical University (DTU) is maintained (new IHO logo, etc.) and kept updated. For the download of C-51, a link to the official IHO website is strongly recommended.	**HSSC-15**	
6.1	C-51 – TALOS Ed. 7.0.0	HSSC14/79	**HSSC** noted the requirement for a digital publication (e-book) of C-51 (Ed.7.0.0).	**HSSC-15**	
6.1	ABLOS TORs	HSSC14/80	Iaw with Art. 2.13, **HSSC** approved the new TORs with references to be amended.		Decision TORs to be published on IHO website

7.	**Decisions of other bodies affecting HSSC**				
7.1	**IRCC (incl. MSDIWG)**				
4.3, 7.1	SPIs, CSB, WEND100	HSSC14/81	**HSSC** noted the report from **IRCC** and the good coordination between the two committees.		Decision
7.1A	IHO e-learning centre	HSSC14/82	**HSSC** agreed to consider the requests from the IHO e-learning centre for providing contents, as appropriate. Requests to be submitted at least 7 weeks prior to HSSC meetings (and/or WGs meetings) to be considered as appropriate and in accordance with Work Plans.	**WGs meetings – 7 weeks / HSSC-15**	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
7.1A	MSDI	HSSC14/83 (former HSSC13/68)	**HSSC** noted the forthcoming intention from MSDIWG to engage directly with HSSC and its WGs in the future development of guidelines/recommendations for supporting S-100 MSDI activities in view of monitoring/contributing the Roadmap for the S-100 Implementation Decade.	**HSSC-15**	
7.1A	HSSC / IRCC	HSSC14/84	**HSSC** confirmed the value of direct coordination from **IRCC** bodies with relevant WGs of HSSC, as appropriate and in accordance with Work Plans.		Decision
7.2 IMO					
7.2A	Revision of ECDIS Performance Standards	HSSC14/85	**HSSC** noted the proposed revision of MSC232(82) - ECDIS performance standards submitted by IHO, **CIRM** and **INTERTANKO** to NCSR-9…including the introduction of some new terms (ENDS[3], SENC replaced by System Database) …and **encouraged IHO Member States** Hydrographic Offices at their NCSR pre-meeting preparations and in general engagement with their national maritime administrations to propose support for the proposed revision of MSC232 (82) - ECDIS performance standards as critical to the success of the Roadmap for the S-100 Implementation Decade.	**NCSR-9**	Decision Complete Complete (Council Report to A-3 refers)
7.2A	Revision of ECDIS Performance Standards	HSSC14/86	**HSSC** thanked subject matter experts from **CIRM, IEC, INTERTANKO, Germany, Sweden** and **SevenCs**) for their active contribution in the development of the proposed amendments to the IMO Resolution MSC.232 (82) (Doc. NCSR 9/16/1 refers).		Decision

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[3] Electronic Navigational Data Service,

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
7.2A	S-66	HSSC14/87	Once amendments are adopted at IMO level, **HSSC** noted that a revision of S-66 should be considered to include new terms (ENDS, System Database) in the publication.	**HSSC-15**	
7.2A	ECDIS – Good Guidance for Practice	HSSC14/88	**HSSC** noted the information submitted by **China** to NCSR-9 (Doc. NCSR 9/16/2 and NCSR 9/INF.14 refers).		Decision
7.3 IALA					
7.3	S-2xx	HSSC14/89 (former HSSC13/72)	**HSSC** noted the report from IALA and invited **IALA** to submit their Ed.1.0.0 of their product specifications for registration in the IHO Geospatial Registry.	**HSSC-15**	
7.3	Joint IALA/IHO Workshop, September	HSSC14/90	**HSSC** noted the Joint IALA/IHO Workshop on S-100/200 development and portrayal and encouraged **HSSC Members** and Observers to consider participation. **IHO Secretariat** to issue an HSSC CL when more details are available.	**Ålesund, Norway (5-9 September 2022)** **Asap**	Complete (e-HSSC e-CL 04/2022 refers)
7.4 IEC					
7.4	Critical Path (S-100 Standars)	HSSC14/91	**HSSC** noted the **IEC** report and recommendations on critical path between IHO standards development and IEC 61174 ECDIS Standard.		Decision
7.4	S-100 Roadmap	HSSC14/92	**HSSC** invited **IEC** to consider the possibility of reviewing Annex 1 of the Roadmap on the S-100 Implementation Decade (Section B in particular: Timeline for the incorporation of S-100 into IMO and IEC instruments).	**End of June 2022**	Complete
7.5 CIRM					

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
7.5	Dual Fuel Concept	HSSC14/93	Noting that **CIRM** will consider Dual-Fuel ECDIS concept further at Annual Conference in Malta, October 2022, **HSSC** invited **CIRM** to take precautionary measures in the discussion since this concept is still under the approval process within the IHO.	**October 2022**	Complete
7.5	HD ENCs	HSSC14/94	**HSSC** took note of **CIRM's** view that the best solution to address limited availability of depth data in current ECDIS is to increase production of HD ENCs.		Decision
7.6 ISO					
7.6	Standards on Sonar Calibration and Validation	HSSC14/95	**HSSC** noted the report and the request made to the IHO to consider collaboration to the revision of ISO 19159-5 (*Calibration and validation of remote sensing imagery sensors and data — Part 5: Sonar*). **HSSC Members** (and **HSWG** in particular) to consider this request and report to the IHO Secretariat (Poc: yong.baek@iho.int).	**HSSC-15** **End of June 2022**	
7.7 OGC					
7.7		HSSC14/96	**HSSC** thanked **OGC** for their comprehensive update report and highlights on pilot projects related to IHO/HSSC work items.		Decision
7.7	S-122	HSSC14/97	**HSSC** invited **OGC** to consider the possibility of reporting on S-122 implementation experimentation (pilot projects) and IGIF Roadmap in Baltic and North Sea to **NIPWG** and **WENDWG** at their next meetings.	**NIPWG-9 / WENDWG-13**	
7.8a DGIWG					
7.8a	DGIWG	HSSC14/98	**HSSC** noted the report from the **DGIWG** and thanked Mr Al Armstrong (US, NGA) for leading and re-establishing the relationship with HSSC.		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 16 Dec 2022)
7.8b GMWG					
7.8b	IHO GI Registry	HSSC14/99	**HSSC** noted the request for some orientation and training on the IHO GI Registry.	**HSSC-15**	In progress. GI Registry Workshop Dec 2022.
8. Review and Endorsement of HSSC Work Plan and List of Actions					
	Work Programme	HSSC14/100	**HSSC** approved the amendments proposed by the HSSC WGs and PTs' Chairs to their Work Plans. **IHO Secretariat** to upload the consolidated version of the HSSC Work Plan accordingly.	**September 2022**	Decision Complete (deadline: 31 July)
	IHO Resolution 2/2007	HSSC14/101	**HSSC Chair Group** to consider the need to review the Appendices of the IHO Resolution 2/2007 as amended.	**HSSC-15**	
9. Date & Location of the next meetings					
9	HSSC-15, HSSC-16	HSSC14/102	Noting that the next meeting will take place just after A-3 (end of April 2023), **HSSC** welcomed the confirmation from Finland to host HSSC-15 in Helsinki, 8-12 May 2023 (1 day for a Stakeholder session, 2 days plenary). **HSSC** welcomed also the offer by Japan, for hosting HSSC-16 in May 2024. This meeting will include an Open Stakeholders' Session.	**Go no-go / hybrid format/ postponement decision by 31 January**	Decision
9	HSSC and WGs Office Bearers	HSSC14/103	The **IHO Secretariat** reminded the Office Bearers that according the ROPs of HSSC and WGs, elections of Chair and Vice-Chair are decided at the 1st meeting after ordinary sessions of the Assembly. Calls for nominations need to be issued in advance of the events.	**HSSC-15**	