LIST OF DECISIONS & ACTIONS ARISING FROM HSSC-12 --

		ACTION	ACTIONS	TADODT	
AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS	TARGET DATE/EVENT	STATUS (at 27 Nov.
		INO.	(in bold, action by)	DAIE/EVENI	(at 27 Nov. 2020)
1. Op	ening and Adminis	strative Arrangeme	nts		2020)
	Contact List	HSSC12/01	IHO Member States and	Permanent	Last update
			Stakeholders to provide the IHO		26 November
			Sec. with their updates to the		2020
			HSSC List of Contacts.		
	Attendance	HSSC12/02	HSSC Members to consider the	Permanent	
			possibility of limiting the number		
			of their delegates at HSSC face-to-		
			face meetings (up to 2 in addition		
			to WGs' office bearers, in any)		
			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 in the limits		
			of the web platforms is		
			encouraged.		
2. Ap	proval of Agenda				
2. Ap		USSC12/02	USSC approved the approved and		Desision
	Agenda and Timetable for	HSSC12/03	HSSC approved the agenda and associated timetable.		Decision
	HSSC-12		associated innetable.		
	1155C-12				
3. Ma	tters arising from	Minutes of 11th HS	SC Meeting		
	Pending Actions	HSSC12/04	HSSC invited participants to refer		Decision
	rending rectons	1155012/01	to the status report on the list of		Decision
			actions from HSSC11 and agreed		
			to consider the pending actions		
			from HSSC11 under the relevant		
			agenda items.		
	SC Administration	n			
4.2	S-100 Master	HSSC12/05	When the S-100 Implementation	HSSC-13	In progress
	Plan	(former HSSC11/09)	Strategy is finalized as an official		
			IHO document, S-100WG to		
			consider submitting a proposal by		
			which this Strategy supersedes the		
			S-100 Master Plan.		
			In addition to the relevant updates to be made to the main text of the		
			S-100 Implementation Strategy.		
			HSSC Chair to propose the	A-2	
			possibility of adding 3 annexes	13-4	
			related to the IHO Work		
			Programme 1, 2 and 3.		

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
4.3	SPIs	HSSC12/06	Assuming that the Revised Strategic Plan will be adopted at A-2, HSSC agreed to convene an HSSC Chair Group meeting to prepare its implementation starting in January 2021 through the proposed SPIs which will be allocated to HSSC. - 2026 SPIs targets estimates by relevant bodies and SPIs implementation methodology to be defined accordingly, recommendation made by Canada to automate the process as far as possible for efficiency and continuous monitoring was noted.	9 December End of January 2021	HSSC Chair Group Meeting planned 9 Dec 2020
5. Rep	oorts by HSSC Wo	rking Grouns			
	00 (S-100WG)	ing oroups			
5.1	S-100 Ed.5.0.0	HSSC12/07	HSSC agreed to delay the publication of S-100 Edition 5.0.0 until 2022 while tasked the HSSC WGs to consider aligning all product	HSSC-13	Decision
			specifications and as a priority the following product specifications to Edition 5.0.0 by 2023 (S-101, S- 102, S-104, S-111, S-122, S-123, S-124 ¹ , S-129) and the need for any other S-100 based products out of the IHO remit (such as S- 411 - <i>Ice information</i>) ² that are considered valuable to the S-100 Implementation Plan and advise accordingly.		
5.1	S-100 Ed.5.0.0	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-13	
5.1	S-97	HSSC12/09	HSSC noted the publication of Ed. 1.1.0, June 2020 of S-97 - <i>IHO</i> <i>Guidelines for Creating S-100</i> <i>Product Specifications</i>		Decision

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 27 Nov. 2020)
5.1	S-98	HSSC12/10	HSSC noted the progress made in the development of Ed. 1.0.0 of S- 98 as part of the S-100 Implementation Road Map with the aim to submit Ed. 1.0.0 for endorsement in 2021 and agreed on the proposed incremental approach for additional PS currently excluded.	HSSC-14	
5.1	S-98	HSSC12/11	HSSC Chair to propose an amendment to the S-100 Implementation Road Map based on the list of products planned to be covered by S-98 as appropriate.	A-2	Done. Implementati on in progress
5.1	S100 Test Dataset and S100 ECDIS	HSSC12/12	HSSC noted the progress made on the development of S-100 Test Data Set and the outsourced analysis of the concept of using S- 100 based–products in ECDIS environment against SOLAS regulations and allocated S-164 number (as equivalent to S-64) for the S-100 Equivalent of S-64		Decision
	S-100P S-100 Open Online Platform	HSSC12/13	 HSSC Chair to update A-2 on S- 10OP under development for further consideration. ROK was invited to prepare an invitation package so Member States can consider joining. 	A-2 HSSC-13	Done
5.1	S-121	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, then MS for approval).	HSSC-13	
5.1	S-100 ECDIS	HSSC12/15	HSSC noted the progress made on testbeds with a Shore-based ECDIS and the first outcome		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.1	S-101	HSSC12/16	 HSSC agreed on the way forward for the development of Ed. 1.1.0 of S-101 to align with draft S-100 Ed. 5.0.0. S-100WG Chair to provide the HSSC Chair with the matrix showing the updated timelines of S-101 for A-2. 	HSSC- 13/completion HSSC-14 23 Oct for A-2	Done
5.1	S-101 End Users	HSSC12/17	HSSC encouraged S-101PT to engage with End Users to validate S-101 test data sets and concepts through call for projects, experimentations, training centres, IHO Innovation Lab (Singapore), etc.	HSSC-13	
5.1	Dual Fuel Concept	HSSC12/18	 HSSC agreed on the Dual-Fuel Concept principles (<i>Essential</i> <i>Principles of Operation</i>) provided in Doc. HSSC12-05.1F and tasked S-100WG/S-101PT to liaise with Stakeholders (OEM, etc.) to prepare a governance document that formalizes the guiding principles of DF-Concept for incorporation into the S100 Implementation Roadmap Noting the report on DF-ECDIS and feedback from OEMs, S- 100WG supported by ENCWG to prepare a synoptic summary report on the various options offered to HOs for considering the development of their production of S-101 ENCs (in conjunction with S-57 maintenance/production) to address the valid concerns raised by China in A2 /PRO 2.2. HSSC Chair to provide a short update on DF Concept and proposed way forward for PRO 2.2 	HSSC-13 HSSC-13 29 Oct	Decision
5.1	Test Bed Platform	HSSC12/19A (former HSSC11/29)	HOs are encouraged to utilize the online test bed platform to visualize their S-100 based products test datasets	Permanent (until 2023)	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
	S100 Viewer	HSSC12/19B	HSSC noted the release plan of KHOA S-100 Viewer and the proposal made to S-100WG to discuss this open source strategy.	HSSC-13	
5.1	Revision of IHO Resolutions following the introduction of S-100	HSSC12/20	HSSC agreed that the revision of some IHO Resolutions is an important driver for the effective implementation of the S-100 concept and supported the revised proposals made in Doc. HSSC12- 05.1H in general, in relation to A2 PRO 2.3 submitted by the ROK		Decision
			HSSC Chair to include in his updated report to A-2 that "A-2 is invited to task the HSSC to review the IHO Resolutions with regard to PRO 2.3". When the <u>operational</u> implementation of the S100 concept becomes mature enough, proposed amendments to the Resolutions eventually complemented by other new Resolutions (such as WEND100) will be submitted to the Council for endorsement as appropriate, and for subsequent approval by Member Statutes.	A-2	Done. Some proposals to be considered for HSSC13
5.2 EN	C Standards Main	topopoo (ENCWC)			
5.2	HD ENC	HSSC12/21	HSSC noted the publication of IHO S-65 Annex A, <i>HD ENC</i> <i>Production and Maintenance</i> <i>Guidance</i> , January 2020, and the publication of IHO S-63, Edition 1.2.1, March 2020		Decision
5.2	Cybersecurity	HSSC12/22	HSSC encouraged the ENCWG to pursue the investigations for the possible development of a new Edition of S-63 compliant with IMO cybersecurity measures and IEC 63154 ED1.	HSSC-13	
5.2	S-58	HSSC12/23	HSSC approved the proposal from ENCWG to develop Edition 7.0.0 of S-58	HSSC-13	Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.2	ENCWG Information Papers	HSSC12/24	HSSC invited the IHO Secretariat to consider the most appropriate communication strategy to publish the ENCWG Mariner Information Papers in general and the ENC Generalization Over-Scaling and Safety Checking Functions in ECDIS in particular.	HSSC-13	
			Meanwhile, the ENC Generalization paper will be published by the IHO Secretariat who will consider the available different options as appropriate.		Done
5.2	ENCWG Information Papers	HSSC12/25	In order to ensure proper maintenance of documents, HSSC tasked the ENCWG to consider existing publications in force (S- 66, S-67, etc.), or new publications, to incorporate relevant information from ENCWG Mariner Information Papers as part of its programme of work.	HSSC-13	
5.2	Master/Slave	HSSC12/26	HSSC agreed that all references to the so-called technical "master/slave" relationship should not be used in future IHO publications and standards.	Permanent	Decision
5.2	Master/Slave	HSSC12/27	Noting that there is no technical reason for removing "master/slave" and other possible offensive terminology from the existing wording in S-57 Standard (and likely in others such as S-58), HSSC agreed to keep it frozen.		Decision
	Master/Slave	HSSC12/28	IHO Secretariat to consider possible options in their communication strategy to provide a clarification notice in the case of existing publications.	HSSC-13	In progress

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.2	S-52, S-63 and S-64	HSSC12/29 (former HSSC11/31)	HSSC endorsed the proposed clarifications for the S-52, S-63 and S-64 standards for publication.		Decision
			IHO Sec. to subsequently publish the corresponding clarifications on the IHO website > Standards and Publications.	HSSC-13	Done for S- 63 (March 2020), in progress for S-52, S-64 (Jan 2021)
5.3 Nau	itical Information	Provision (NIPWG)			
5.3	S-49 – Mariners' Routeing Guides (MRG)	HSSC12/30	HSSC agreed that S-49 Edition 2.1.0, as it stands, should be no longer maintained. MRG information to be provided by S- 100 based products in the future as appropriate.		Decision
5.3	S-124 – Navigational Warnings	HSSC12/31	HSSC noted the progress made by the forthcoming S-124 PT on Navigational Warnings (Portrayal issues, Comms, etc.) and tasked NCWG to consider S-124 PT request in regard to its recommendations on portrayal	NCWG-6	Decision Done
5.3	Maritime Services, e- navigation	HSSC12/32 (former HSSC11/36)	options. 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.	Permanent	
5.3	Marine Harbour Infrastructure	HSSC12/33	 HSSC agreed on the allocation of <i>S-131</i> to the Marine Harbour Infrastructure Product Specification. IHO Sec. to update S-100 webpage and Registry 		Decision Done
5.3	S-100 System Architecture	HSSC12/34	HSSC confirmed the responsibility of NIPWG (in liaison with S-100WG) for the maintenance of the Architectural Display of Product Specifications under the remit of the IHO.	HSSC-13	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.3	NtMs versus subscription service	HSSC12/35	HSSC tasked NCWG (following NIPWG initial assessment) to consider the proposal made on subscription based services to provide updates to navigational products.	HSSC-13	In progress
5.4 Nau	itical Cartography				
5.4	From ENC to Paper Chart	HSSC12/36 (former HSSC11/47)	HSSC tasked the NCWG to add a work item in its workplan to develop ways to enable or enhance HOs' ability to produce paper charts or raster chart images directly from S-101. [The goal is to create a 'Common	NCWG-6	Done
			IHO Baseline Symbology' including basic symbol sets and rules.]	HSSC-13	
	From ENC to Paper Chart	HSSC12/37	HSSC invited CA, DK and the US to engage with the NCWG as appropriate regarding unified symbology for the production of paper charts.	NCWG-7 (2021)	
	Future of the Paper Chart	HSSC12/38	HSSC supported the NCWG proposal that there is no need to add a new work item in the NCWG Workplan to develop a separate specification for simplified or back-up nautical charts at this time.		Decision
	Future of the Paper Chart	HSSC12/39	HSSC agreed that the maintenance of S-4 and INT-1 remains an ongoing activity.		
	Future of the Paper Chart	HSSC12/40	HSSC agreed to push forward some recommendations to IRCC (for the RHCs) based on the proposals made by NCWG from the report on the Future of the Nautical Paper Chart on the INT chart concept and ENC Schemes (Registration of ENC Schemes, ENC Producing Agencies, IHO Resolution 7/1919, compliance with S-4 for printed charts or re- print, coordinated maintenance procedures if needed).	IRCC-13	

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.4	Portrayal	HSSC12/41 (former HSSC11/48)	S-100WG, ENCWG, NCWG, and NIPWG to develop a harmonized portrayal process for S-98. Outcome of the review to be shared with TWCWG	HSSC-13	
5.4	S-4 Ed. 4.9.0	HSSC12/42	HSSC endorsed the revision of S- 4 proposed by the NCWG for Ed. 4.9.0.		Decision
			NCWG Sec to provide IHO Secretariat with the corresponding red-line version of S-4, English version.	November 2020	Done
			IHO Secretariat to issue an IHO CL seeking the approval of MS on Ed. 4.9.0	January 2021	
5.4	NCWG TORs	HSSC12/43	HSSC approved the amendments to the TORs as presented (with some editorial corrections to be made).		Done
			IHO Secretariat to make the new TORs available.	January 2021	
5.4	Future of the Nautical Paper Chart	HSSC12/44	HSSC endorsed the recommendations provided by the NCWG in its report on the Future of the Nautical Paper Chart.		Decision
5.4	Future of the Nautical Paper Chart	HSSC12/45	HSSC Chair to update A-2 on the NCWG recommendations made for the Future of the Nautical Paper Chart and keep IRCC informed.	A-2/C-4 IRCC-13	Done
5.5 Dat	a Quality (DQWG S-67	HSSC12/46	HSSC invited Member States,	HSSC-13	
5.5	5-07	1155€12/40	France and Spain in particular, to consider the possibility of translation of S-67 Ed.1.0.0.	11550-13	
5.5	IHO Resolution 2/2007	HSSC12/47	HSSC agreed that the review by the DQWG of S-1xx Product Specifications is a necessary step required before submitting Ed. 2.0.0 to the approval of Member States.		Decision

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.5	Conditional Visualization of Quality of Bathymetric Data	HSSC12/48	HSSC approved the completion of the task on the conditional visualization of quality of bathymetric data by the DQWG and the transfer of the outcome and recommendations to the S- 101PT for their consideration	HSSC-13	Decision
5.5	Data Quality in existing S-57 ENCs	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	
5.6 Pro	viect Team on Stan	dards for Hydrogra	aphic Surveys (HSPT)		
5.6	6 th Edition of S- 44	HSSC12/50	HSSC commended the HSPT for the excellent work done to achieve the publication of Ed.6.0.0 of S- 44.		Decision
5.6	HSPT and HSWG	HSSC12/51	 HSSC approved the establishment of a new Working Group under HSSC, the Hydrographic Surveys WG under the proposed TORs made by the HSPT (incl. some amendments made at HSSC-12). HSPT to be disbanded when the WG is established. IHO Secretariat to call for Membership and Office Bearers 	December	Decision Done (IHO
5.6	Implementation of S-44 Ed. 6.0.0	HSSC12/52	 through IHO CL. HSSC invited the HSWG to develop a work plan in line with the IHO Strategic Objectives and the approved IHO Work Programme, and to include in this work plan: the possibility of arranging webinar(s) in 2021 on implementation guidance the creation of a collaborative discussion space as proposed by FR, UK and US (data processing, QA, common practices, automation, etc.). 	2020 HSSC-13	CL 36/2020)

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
5.5	S-44 Ed. 6.0.0	HSSC12/53	HSSC invited Member States, France and Spain in particular, to consider the possibility of	HSSC-13	
			translation of S-44 Ed.6.0.0.		
	es, Water Level an	d Currents (TWCV	· · · · · · · · · · · · · · · · · · ·		
5.7		HSSC12/54	HSSC honoured the memory of		Decision
			Dr Kurt Hess (US), active TWCWG Member, who passed		
			away in June 2020		
			and agreed to put some words in	TWCWG/IHO	
			the acknowledgement section of S- 111 Product Specification.	Secretariat	
		HSSC12/55	HSSC approved the target for S-104.	HSSC-13	Decision
		HSSC12/56	HSSC approved the proposal made by TWCWG for having another joint IHO-TWCWG IOC- GLOSS meeting.		Decision
		HSSC12/57	HSSC Secretariat to forward the	December	In progress
		1100012/07	request made by TWCWG to	2020	in progress
			IRCC (and its CBSC-SC) on the		
			possible needs for translation of		
			tide & hydrographic lessons into other languages.		
5.8 Hyd	Juaguanhia Distion				
5.8 Hy	drographic Diction Participation in	HSSC12/58	RU to consider the possibility of	HSSC-13	
	HDWG	(former HSSC11/61)	appointing a member to the HDWG.	11550-15	
	HDWG-3, 2021	HSSC12/59	HSSC supports the principle of a face-to-face meeting in 2021.		Decision
	Hydrographic Dictionnary, Encyclopaedic	HSSC12/60	HSSC confirmed the principle of maintaining the Hydrographic Dictionary in its present		Decision
	Structure		encyclopaedic structure rather than downgrading it to a simpler glossary.		
	Chairmanship	HSSC12/61	HSSC commended Ingenieur general (Reserve) Jean Laporte (FR), out-going Chair of the HDWG, for his dedication and commitment.		
	er-Organizational				
		oard on the Law of			
6.1	ABLOS	HSSC12/62	HSSC commended ABLOS Chair and the Board for their report and approved the		
			continuation of their work as planned.		

AGEN ITE		SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
7.	Dec	isions of other hod	lies affecting HSSC			
7.1		CC (incl. MSDIWG				
		A-2	HSSC12/63	HSSC thanked the IRCC Chair for his update and agreed on the need to coordinate inputs to A-2.	A-2	Done
7.4	IEC	1				
		>	HSSC12/64	 HSSC noted the following IEC updates: Introduction of S-101 and S-100 into IEC 61174 ECDIS standard Data cyber security requirements for navigation equipment (IEC 63154) S-421: Route Plan based on S-100 (IEC 63173-1) Secure exchange and communication of S-100 based products (SECOM) (IEC 63173-2) 		
7.5	CIR	RM		L	1	<u> </u>
			HSSC12/65	HSSC noted the CIRM presentation, proposals and recommendations with regard to the transition to S-101 ENCs (timelines, IEC 61174, etc.).		
			HSSC12/66	HSSC welcomed the proposal made by CIRM to ECDIS OEMs that are not active within IHO to collaborate with IHO through CIRM.		
			HSSC12/67	HSSC Secretary to invite IEC and CIRM at a S-100 Implementation Road Map strategy meeting prior to NCSR meeting.	December 2020 (tbc)	Done, but postponed for NCSR-9
9.	Re	view and Endorser	nent of HSSC Wor	k Plan and List of Actions		
		Work Programme	HSSC12/68	HSSC approved the amendments proposed by the HSSC WGs and PTs' Chairs to their Work Plans.IHO Sec. to upload the consolidated version of the HSSC	January 2021	Decision
				Work Plan accordingly.		

AGENDA ITEM	SUBJECT	ACTION No.	ACTIONS (in bold, action by)	TARGET DATE/EVENT	STATUS (at 27 Nov. 2020)
10. Election of Chair and Vice-Chair					
	Election of Chair	HSSC12/69	HSSC welcomed the election of Mr Magnus Wallhagen (Sweden) as Chair.		Decision
	Election of Vice-Chair	HSSC12/70	No nomination was received before deadline, so HSSC agreed to keep the nomination call open as no one was received before deadline and to proceed by correspondence for the election as soon as one or more nominations are received by the Secretariat. HSSC Members to consider	Asap/HSSC-13	Decision
			nominations as soon as possible		In progress
10		· · · ·	(Asap).	Asap	
10. Dat	e & Location of th	0		TIGGO 12/	
	IHO Stakeholders' Forum	HSSC12/71 (former HSSC11/82)	HSSC agreed to consider an IHO Stakeholders' Forum in conjunction with HSSC-13 or later, to be focused on navigation systems.	HSSC-13/or later	
	HSSC-13 HSSC-14	HSSC12/72	 HSSC welcomed the confirmation from Indonesia for its offer to host HSSC-13 in Den Pasar, Bali, Indonesia, 24 - 28 May 2021, (possibility for hybrid meeting to be confirmed, and possible postponement of HSSC13 in November 2021). HSSC welcomed also the confirmation by Finland, for hosting HSSC-14 in Helsinki, in May 2022. 	Go no-go / postponement decision by 31 January	Decision