**LIST of DECISIONS & Actions arising from HSSC-15**

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| **AGENDA****ITEM** | **SUBJECT** | **ACTION****No.** | **ACTIONS****(in bold, action by)** | **TARGET****DATE/EVENT** | **STATUS****(at 19 June 2023)** |
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| **1. Opening and Administrative Arrangements**  |
|  | Contact List | HSSC15/01 | **IHO Member States** and **Stakeholders** to provide the IHO Sec. with their updates to the HSSC List of Contacts. | **Permanent** | Last update8 June 2023 |
|  | Attendance | HSSC15/02 | **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** |  |
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| **2. Approval of Agenda**  |

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|  | Agenda and Timetable | HSSC15/03 | **HSSC** approved the agenda and associated timetable **Rev1.2**. |  | Decision |
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| **3. Matters arising from the 14th HSSC Meeting** |
|  | Decisions and Actions | HSSC15/04 | **HSSC** took note of the pending actions from HSSC-14. The following decisions & actions labelled HSSC15/.. (former HSSC14/.., HSSC13/..) are to be considered by the relevant **WGs**, as soon as possible at their next meeting and no later than HSSC-16. | **Asap / HSSC-16** |  |
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| **4. HSSC Administration** |
| **4.1 Overview of the outcome of A-3 affecting HSSC** |
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| **4.2 Implementation of Decisions from A-3 affecting HSSC** |
| 4.1, 4.2 | A-3 | HSSC15/05 | **HSSC** reviewed andnoted the [outcome of A-3](https://iho.int/uploads/user/Services%20and%20Standards/HSSC/HSSC15/HSSC15_2023_04.1A_EN_DECISIONS_3rd_SESSION_OF_ASSEMBLY_Draft.pdf) and agreed on the proposed way forward to address the following decisions, during HSSC-15 or at a later stage:**Decision A3/07**: **IHO Secretariat** to implement the new overarching Resolution on S-100 in M-3. **HSSC WGs** invited to revise existing Resolutions in M-3 in their remit accordingly, as a standing agenda items.**Decision A3/08e**: **HSSC Chair Group** **and Members** to brainstorm in preparation of inputs to the future IHO Strategic Plan 2027-2032. Draft inputs to be considered at the next meeting.**Decision A3/09b**: **WGs** to implement it, if appropriate, at their next revision of their TORs.**Decision A3/11**: to be noted by **HSSC** and its **S-130 PT**.**Decision A3/13**: **IHO Secretariat** to update the S-100 Roadmap accordingly.**Decision A3/14**: **HSSC Chair Group** to set up a new **S-100 Infrastructure Centre Establishment PT** (**S-100 ICE PT**)under HSSC and **HSSC Chair** to report on the progress at C-7. **HSSC** approved the TORs drafted in an ad hoc session at HSSC-15. (**KR**, **SE** are nominated Chair and Vice-Chair, initial list of interested parties as declared at HSSC-15: **US, UK, DK, SE, FR, NO, IN, CA**)**HSSC Secretariat** to issue an HSSC CL on this matter to launch the establishment of the S-100 ICE PT.**Decision A3/15**: Discussion on Electronic Chart Systems was conducted under HSSC-15 agenda 4.2B. **HSSC** drafted the TORs of a new ECS PT in an ad hoc session at HSSC-15 (HSSC Chair Group, UK, NO, FR, PRIMAR, PT, KR, ES, IN, ID, GR, AU, US,NL, SE, SevenCs, CIRM, Teledyne). TORs to be submitted by **ENCWG Chair** to ENCWG Members for their approval. **Decision A3/21**: (inclusive participation in meetings). Planned to be discussed at C-7 (agenda item 7.1). Possible impact on arrangements for HSSC meetings as well. | **December 2023****HSSC-16 /-17****Permanent****HSSC-16****December 2023****C-7 (17 July)****C-7****ENCWG8**  | DecisionDecision |
| 4.2B | Future of Digital Charting | HSSC15/06 | **HSSC** commended the UK for their information paper on the Future of Digital Charting and agreed on the establishment of a new PT under HSSC.  |  | DecisionSee HSSC15/07 |
| 4.2B | Future of Digital Charting | HSSC15/07 | **HSSC Chair Group** (supported by UK, NO, FR, PRIMAR, PT, KR, ES, IN, ID, GR, AU, US,NL, SE, SevenCs, CIRM, Teledyne)to develop the TORs of the ECS PT and to establish the PT, under **ENCWG**, based on the following principles:* High level objectives on issues to be addressed,
* Gap analysis for the unregulated market (from leisure boats to large non-SOLAS vessels),
* Expected outcome: guidance for supporting national regulations.

Initial Report | **September 2023****HSSC-16** | Complete(Draft TORs developed. See in Actions HSSC15/05 above, the one related to Decision A3/15) |
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| **4.3 Strategic Performance Indicators allocated to HSSC – Reports and Proposals to C-7** |
| 4.3 | SPIs | HSSC15/08(former HSSC14/06) | **HSSC Working Groups / Project Teams Chairs** leading some SPIs, to report to the **HSSC Chair/Secretariat** on their SPIs values for 2023, including refined objective targets for 2026 if appropriate. | **15 January 2024** |  |
| **4.4 Joint IHO-Singapore Innovation and Technology Laboratory** |
| 4.4 | Joint IHO-Singapore Innovation and Technology Laboratory | HSSC15/09(See also former HSSC14/07, HSSC13/34) | **HSSC** welcomed the report provided by the **Joint IHO-Singapore Lab** and noted the updates on:- the approved project “Development of S-57 to S-101 Conversion Guidance Document” and a forthcoming review/workshop;- the approved project “S-131 marine Harbour Infrastructure Database” and the 1st in-person meeting;- the approved project “test-bedding ECDIS displaying S-102 and S-104 on S-101 ENCs” and the discussion in progress with stakeholders for funding support;- the approved proof of concept “1st IHO&IALA interoperability demonstrator S-124, S-125 on S-101 using 4G/5G Telecom links”.**HSSC Members and Observers**/**Stakeholders** 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.  | **July 2023****July 2023****HSSC-16** | Decision |
| **4.6 Proposal (UK): Recognising the Champions of Hydrography** |
|  | Champions of Hydrography | HSSC15/10 | **HSSC** endorsed the proposal from the UK for the IHO to consider the creation of a new award, more inclusive than the Medal of Prince Albert 1st, recognising once a year a champion of hydrography across HSSC and IRCC (WGs, SCs and PTs). |  | Decision |
|  | Champions of Hydrography | HSSC15/11 | **HSSC Chair**, as part of its report to C-7, to seek endorsement from the Council on the principles for a new award recognising the Champions of Hydrography.Then, if endorsed at C-7, **HSSC Chair [and IRCC Chair**] supported by **IHO Secretariat**, to prepare a proposed IHO Resolution on this matter. Once finalized among **HSSC [and IRCC]**, **IHO Secretariat** to issue an IHO CL seeking the approval of **IHO Member States** on the proposed IHO Resolution. | **C-7 (17 July)****February 2024****March 2024** |  |
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| **5. Reports by HSSC Working Groups and Project Teams** |
| **5.1 S-100 (S-100WG)** |
| 5.1A | S-100, Ed. 5.1.0 | HSSC15/12 | **HSSC** endorsed Ed. 5.1.0 of S-100, April 2023.**IHO Secretariat** to issue an IHO CL seeking the approval of Member States. | **August 2023** | Decision |
| 5.1A | S-98, S-164 | HSSC15/13 | **HSSC** noted that S-98 and S-164 development are on the critical path with high risk to not meeting 2024 for their Ed. 2.0.0. |  | Decision |
| 5.1A, 5.1G | S-164 | HSSC15/14 | **HSSC** approved Ed. 1.0.0 of S-164 for initial implementation, testing and evaluation. |  | Decision |
| 5.1A | S-158 | HSSC15/15 | **HSSC** noted the establishment of the S-100 validation sub-group within S-100WG and agreed to reserve **S-158** as a provisional number for *S-100 Data/Product Level Validation Checks* (including for those Product Spec listed in S-98), pending further discussions to come, noting that the use of this number will be finalized and decided at a later stage. | **S100WG8 meeting** | Decision |
| 5.1A | S-100 Roadmap, Route Monitoring and Planning | HSSC15/16 | **HSSC** endorsed the recommendations to amend the S-100 Roadmap: Phase 1 / Route Monitoring, Phase 2 / Route Planning. |  | Decision |
|  | 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). |  | DecisionReminder |
|  | 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** | DecisionReminderComplete (IHO CL 40/2022 refers) |
| 5.1A | S-102 | HSSC15/17 | Iaw Decision HSSC14/22 and noting IHO CL 40/2022 (adoption of Ed. 2.1.0), **HSSC** noted the publication of Ed. 2.2.0, April 2023 of S-102.  |  |  |
| 5.1A | S-102 | HSSC15/18 | **HSSC** noted the intention to create a separate S-1xx spec number for non-navigation purposes. To be decided after S-102, Ed. 3.0.0 is published (expected April 2024 with medium risk to not meeting the target date).Keeping in mind [Decision/Action C6/31](https://iho.int/uploads/user/About%20IHO/Council/council6/LIST%20OF%20DECISIONS%20and%20ACTIONS%20FROM%20C6_v1.pdf) (*to ensure that a clear distinction is made in the future in the naming between S-xxx products used for navigation and products used for other purposes*).  |  |  |
| 5.1A | S-100 Ed.5.0.0  | HSSC15/19(former HSSC 14/11, 13/16, HSSC12/07) | Following the adoption of Ed. 1.0.0 of S-98, **HSSC** tasked the **HSSC WGs** to consider aligning of all product specifications and as a priority the following product specifications (identified in Ed. 1.0.0 of S-98) to S-100 Edition 5.1.0 by 2024 (S-101, S-102, S-104, S-111, S-122, S-123, S-124[[1]](#footnote-1), S-127, S-128, 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]](#footnote-2) that are considered valuable to the S-100 Implementation Plan and advise stakeholders accordingly.**HSSC** noted that S-100 Ed. 5.2.0 (or any Ed. 5.1.x) should minimize the impact on Feature Catalogue and Portrayal Catalogue builders.**WGs** to be aware of cut-off for change requests to the S-100WG8 meeting (November 2023). | **HSSC-16****Inputs by 15 October 2023** | In progress |
| 5.1A | SENC | HSSC15/20(former HSSC14/25, 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-16** | In progress as part of development of S-164 |
| 5.1A | S-129 | HSSC15/21 | **HSSC** noted the progress of S-129 towards Ed. 2.0.0 (with medium risk to not meeting the target date 2024). | **HSSC-16** |  |
| 5.1A | S-1OOP | HSSC15/22(former HSSC 14/33, 13/04, 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-16** | IHO CL 12/2021 refersIn progress |
| 5.1C | S-101 | HSSC15/23 | **HSSC** noted the publication of Ed. 1.1.0, April 2023 of S-101 and commended the S-101PT for their hard work.  |  |  |
| 5.1C | S-101 | HSSC15/24 | **HSSC** noted the critical path and issues towards the development of the operational Edition of S-101 (testing phase dependent from other product specs such S-98, S-128, S-164, as well as S-102, S-104, timelines, funding) and endorsed the way ahead set out by the PT. |  | Decision |
| 5.1C | S-101 | HSSC15/25 | **HSSC** noted that the funding request made by the S-101 PT had been accepted……**HSSC Chair,** in his report to C-7, to report on the funding allocation (38k€) from the Special Projects Fund, in support of Test Dataset production. | **C-7 (17 July)** | Decision |
| 5.1C | S-101 | HSSC15/26 | **HSSC** recognised the efforts of the PT and supported the recommendation to accelerate the PT meetings tempo (two meetings in 2023) in order to mitigate the risks of not meeting the IMO in force date for ECDIS of 1 Jan 2026. |  | Decision |
| 5.1F | Maintenance of Dual Fuel Concept for S-100 ECDIS Governance Document | HSSC15/27 | **HSSC** tasked the **S-100WG** to maintain the DF Concept for S-100 ECDIS and provide updates for endorsement as appropriate. | **HSSC-16** |  |
| 5.1H | S-100 Security Scheme | HSSC15/28 | **HSSC** commended the UK for their submission paper proposing a review of the IHO S-100 Security Scheme (appointment, operation and termination process) and agreed on the establishment of a new PT under HSSC. |  | Decision |
| 5.1H | S-100 Security Scheme | HSSC15/29 | **HSSC** approved the establishment of a new S-100 Security Scheme PT under HSSC and agreed on the draft TORs proposed by the **UK (lead)**.**HSSC** invited the S-100 Security Scheme PT (initial Membership: **AU, FR, KR, SE, UK, IALA, IC-ENC, PRIMAR, HSSC Vice-Chair, IHO Secretariat**), in liaison with **S-100WG** if appropriate, to ensure that the S-100 Security Scheme rules and admin procedures are compatible with SECOM. | **September-October 2023 (VTC 01 tbc)****HSSC-16** | Decision |
| 5.1I | S-412 | HSSC15/30 | **HSSC** welcomed the US proposal on S-412 and agreed to include S-412 as part of S-98 development for Phase 2 / Route planning.**HSSC Chair** to recommend an amendment to the Annex 2 to the S-100 Roadmap for S-412 in his report to C-7. | **Update expected at HSSC-17 (2025)****C-7 (17 July)** |  |
| 5.1I | S-411 | HSSC15/31 | **HSSC** welcomed **Germany**’s proposal on S-411 and agreed to include S-411 as part of S-98 development for Phase 2/ Route planning.**HSSC Chair** to recommend an amendment to the Annex 2 to the S-100 Roadmap for S-411 in his report to C-7. | **HSSC-17** |  |
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| **5.2 ENC Standards Maintenance (ENCWG)** |

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| 5.2A | S-58 | HSSC15/32 | **HSSC** noted the availability of S-58 test data sets aligned with new Edition 7.0.0 of S-58, October 2022. |  |  |
| 5.2A, 5.2D | Cyber Security Guidance | HSSC15/33 | **HSSC** noted the progress made on the IHO ENC & ECDIS Cyber Security Guidance. Once approved by **ENCWG**, Mariners Information Guidance to be included in the new Edition of S-67 (consolidating S-67, S-66 and associated information papers).**HSSC** commended the **ENCWG** and supporting OEMs as well as the Plymouth University’s Marine Institute/CyberSHIP Lab for this work. | **HSSC-16** |  |
| 5.2A, 5.2C | S-67, S-66 | HSSC15/34 | **HSSC** noted the progress made by the **ENCWG** and the **DQWG** on the development of the new Edition of S-67.Following **HSSC Chair Group** meeting on 9 June, and noting that section38 of IMO MSC.1/Circ.1503/Rev.2 *ECDIS –* “*Guidance for Good Practice*” would need to be amended since reference is made to *Facts about Electronic Charts and Carriage Requirements* in it, **HSSC** agreed to consider the endorsement of **Ed. 2.0.0 of S-66** (instead of S-67, so no title change) and then approval by **Member States** through IHO CL, also announcing withdrawal of S-67 (instead of S-66) from the list of Standards in force, when consolidation is finalized between the **ENCWG** and **DQWG**.  | **HSSC-16/-17** | For clarification: objective of merging S-66 and S-67 plus additional docs is made as recommended by the WGs but this is S-67 Ed. 1 which is withdrawn, and S-66 Ed.2.0.0 which is proposed for approval. |
| 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** | Reminder |
| 5.2A | S-64 | HSSC15/35 | **HSSC** endorsed the strategy and the need for a new Edition 4.0.0 of S-64. Prior to that, **HSSC** tasked the **ENCWG** to conduct an impact study iaw IHO Resolution 2/2007.Then, **IHO Secretariat** to issue an HSSC CL submitting Ed. 4.0.0 to the endorsement of HSSC Member States, incl. the outcome of the impact study and the proposal to concurrently list both edition on the IHO website until 1st January 2029 and update the Notes page of the ENC & ECDIS webpage accordingly.**IHO Secretariat** to issue an IHO CL, seeking for MS approval on this matter. | **October 2023****November 2023****January 2024** | Decision |
| 5.2B | ENCWG TORs | HSSC15/114 | **HSSC** approved the proposed amendments on ENCWG ToRs, including those suggested in session as a consequence of the establishment of the new ECS PT under the ENCWG (See HSSC15/07). The new ENCWG ToRs also include S-101 to S-57 conversion. |  | Decision |
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| **5.3** **Nautical Information Provision (NIPWG)** |
| 5.3A | S-100 System Architecture, IMO’s Maritime Services | HSSC15/36(former HSSC14/44, 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-16** | In progress with Canadian Coast Guard and other agencies |
| 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** | Closed |
| 5.3A | Maritime Services, e-navigation | HSSC15/37(former HSSC 14/46, 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 (engaged with IMO EGDH) |
| 5.3A | Scale Dependent (SD)/Scale Independent (SI) | HSSC15/38(former HSSC 14/47, 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-16** | In progress |
| 5.3A | S-100 Whole Picture | HSSC15/39(former HSSC14/49, 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-16** | In progress |
| 5.3A | S-12x (S-122, S-123, …) | HSSC15/40 (former 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. 5.1.0 and the remaining challenges (Portrayal, etc.). | **HSSC-15** | All products in the process of being aligned with S-100 Ed. 5.1.0 except S-131 |
| 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. Complete. |
| 5.3A | S-12x | HSSC15/41 | **HSSC** noted the possible S-128 scenarios (fig. 2 in Doc. HSSC15-05.3A) and the progress made on other S-12x products in NIPWG portfolio (work on track for S-122, S-123, S-125, S-127). |  |  |
| 5.3A | S-126 | HSSC15/42 | Noting the lack of resources available and other high priority products, **HSSC** agreed to put on hold the development of S-126 until further notice and/or recommendation from NIPWG. |  | Decision |
| 5.3B | S-131 | HSSC15/43 | **HSSC** commended **NIPWG** and **partners** for the work done on S-131 and approved Ed. 1.0.0 of S-131 for initial implementation, testing and evaluation.Alignment with S-100 Ed. 5.1.0 to be considered. | **HSSC-16** | Decision |
| 5.3A, 7.1B | S-124 | HSSC15/44 | Noting the endorsement from the S-100WG, **HSSC** commended the WWNWSC and S-124PT for their work and approved Ed. 1.0.0 of S-124 – *Navigational Warnings* - for initial implementation, testing and evaluation.**HSSC Chair** to report to IRCC (since the WWNW-SC is under its remit). | **IRCC-15** | Decision |
| 5.3 | S-125 | HSSC15/45 | **HSSC** invited **NIPWG** to deliver at the next S-100WG meeting, a presentation on the concept and various options for the operational implementation of S-125 in the future, as well as on interoperability issues with S-101 and S-124. | **S-100WG8****HSSC-16** |  |
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| **5.4 Nautical Cartography (NCWG)** |
| 5.4A | From S-101 to Paper Chart | HSSC15/46(former HSSC14/54a, 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 | **NCWG9****HSSC-16** | In progress – discussed at NCWG8  |
| 5.4B | Future of the Nautical Paper Chart | HSSC15/47(former HSSC14/55, HSSC15/47) | **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-7 on this implementation process. | **C-7** |  |
| 5.4B | Guidelines for automated paper chart output from ENC | HSSC15/48(former 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. |  | Decision |
| 5.4C, 5.4D | Future of Nautical Charts | HSSC15/49 | **HSSC** welcomed the submission paper from **Germany** addressing several issues on paper charts carriage requirements (legal aspects, etc.), maintenance, and coverage in the context of a full IMO ECDIS mandatory carriage requirement in the future. |  |  |
| 5.4D | Future of Nautical Charts | HSSC15/50 | **HSSC** noted the position and clarifications provided by the UK on the transition needed to meet the withdrawal of the Admiralty paper charts, planned from 2030 at the earliest. |  |  |
| 5.4C, 5.4D | Future of Nautical Charts | HSSC15/51 | While noting the establishment of the ECS PT which will consider some of the issues raised during the discussion as well as the outcome from the discussion of paper MSC 107/15/2 at the IMO, **HSSC** agreed that the most important suggestions by **Germany** were in the remit of the **IRCC**. |  |  |
| 5.4C, 5.4D | Future of Nautical Charts | HSSC15/52 | **HSSC** tasked the **NCWG** to study the proposal by **Germany** to consider the need for a new standard for paper chart corrections (such as NtM XML format) and if so to propose amendments to the relevant section(s) of S-4 as appropriate. | **NCWG-9 (Nov 2023)** |  |
| 5.4C, 5.4D | Future of Nautical Charts | HSSC15/53 | **HSSC Chair (delegation to Vice-Chair)** to report on this matter at IRCC-15 (Doc. HSSC15-05.4C, …Actions required by **IRCC**, a., b., c.).**HSSC Chair** to report on the recommendation from **Germany** (consideration of necessary steps to address the need of a full ECDIS carriage requirement to IMO) in his report to C-7. | **June 2023****C-7 (17 July)** |  |
| 5.4 | S-11 Part A | HSSC15/54 | **HSSC Chair** to report to **IRCC** that **NCWG** was tasked to work on S-11 Part A, Section 200 (to incorporate *S-101 Scheming Guidelines*) in liaison with **S-101 PT**.In relation to the recommendation from the **WENDWG** to the **IRCC** (Decision WENDWG13/11 and /12 refer), **HSSC** noted the proposal to consider a new Section 300 to S-11 Part A for other S-100 Products – Phase 1/Route Monitoring by WENDWG (*Guidelines for the Coordination and Management of the Development of S-100 Data Services in RHCs*). | **IRCC-15** | Decision |
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| **5.5 Data Quality (DQWG)** |
| 5.5A | Data Quality in existing S-57 ENCs | HSSC15/55(former HSSC14/59, 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** | RENCs invited to provide status report on the progress of the encoding. |
| 5.5A | S-68, Guidelines from Survey to CATZOC | HSSC15/56 | **HSSC** commended the **DQWG** supported by the **HSWG** for the development of Ed. 1.0.0 of *Guidelines and Recommendations for Hydrographic Offices for the allocation of CATZOC/QoBD Values from Survey Data*. |  |  |
| 5.5A | S-68 | HSSC15/57 | **HSSC** approved Ed. 1.0.0 of S-68 for initial implementation, testing and evaluation.**IHO Member States** invited to provide their initial feedback to the **DQWG**. | **November 2023** (in prep. of DQWG-19, 2024) | Decision |
| 5.5A | Support to Crowdsourced Bathymetry | HSSC15/58(former HSSC14/61, 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). | **HSSC-16** |  |
| 5.5B | Application of ISO 9001 Principles | HSSC15/59 | **HSSC** noted the recommendation for considering the establishment of a S-100 management structure. | **HSSC-16** |  |
| 5.5B | Application of ISO 9001 Principles | HSSC15/60 | Given the dependency on others, PS development timeline to validate S-101 PS edition 2.0.0 after a testing period, **HSSC** agreed on the principle to expand the scope of the ISO Cell to S-164 and S-98 developments and designated S-100WG Vice-Chair as a PCO from the S-164/S-98 subWG to join the ISO Cell and participate to maintain Gantt diagram and risk management documents.  | **HSSC-16** |  |
| 5.5B | Application of ISO 9001 Principles | HSSC15/61 | **HSSC Chair** to consider the possibility of reporting at the next IRCC meeting on the benefits of having such a cell in HSSC and invite the **IRCC** to consider mirroring such an ISO Cell on S-101 with the following scope: RHC S-101 production/coordination/distribution in the near future. Aim: being in a position to report on an annual basis to NCSR on the predicted coverage (of S-101 ENC as a 1st step, then other S-1xx Phase 1/Route Monitoring products). | **IRCC-15** |  |
| 5.5B | Application of ISO 9001 Principles | HSSC15/62 | **HSSC** endorsed the recommendation from the **HSSC** **ISO 9001 Cell** to consider, in cooperation with the S-100WG, how the efforts on S-101 PS development could be measured (monitoring of a “Effort KPI” and set up a new KPI for the S-101 PS process?). | **HSSC-16** |  |
| 5.5B | Application of ISO 9001 Principles | HSSC15/63(former HSSC14/64) | **HSSC Chair** to report to C-7 on the benefits of having this **HSSC ISO 9001 Cell**.  | **C-7 (17 July)** | See also Action HSSC15/61 above |
| 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** | Complete.Portrayal Catalogue version 1.0.2 published November 2022. US NIWC commended for outstanding contribution. |
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| **5.6 Hydrographic Surveys Working Group (HSWG)** |
| 5.6A | HSWG | HSSC15/64 | **HSSC** noted the progress made by the different PT under **HSWG (C-13 MHPT, SDBPT)** as well as the intention to prepare Ed. 6.2.0 of S-44 for submission to HSSC-16 (iaw 2-year maintenance cycle). | **HSSC-16** |  |
| 5.6B | B-13 | HSSC15/65 | **HSSC** commended the **HSWG/SDBPT** for their work……and approved B-13 Ed. 1.0.0 - *Guidance to Satellite-Derived Bathymetry* - for initial implementation, testing and evaluation. |  | Decision |
|  |  |  |  |  |  |
| 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.
 |  | Reminder DecisionEndorsed at IRCC-14 |
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| **5.7 Tides, Water Level and Currents (TWCWG)** |
| 5.7 | S-104, S-111 | HSSC15/66 | **HSSC** commended the **TWCWG** for their work and noted the publication of S-104, Ed. 1.1.0, March 2023 and S-111, Ed. 1.2.0, April 2023.**HSSC** tasked the **TWCWG** to work on the development path to meet the target for Ed. 2.0.0 of S-104 and S-111, together with S-101. | **End of June 2023** | Complete |
| 5.7 | M-3 IHO Resolutions | HSSC15/67(former HSSC13/60) | **HSSC** invited **TWCWG/IHO Secretaria**t to finalize the outcome of HSSC CL 03/2022. | **September 2023** |  |
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| **5.8 Hydrographic Dictionary (HDWG)** |
| 5.8 | HDWG | HSSC15/68 | **HSSC** noted the report of the HDWG and the concerns raised, and re-acknowledged the international recognition of the IHO Hydrographic Dictionary and the need to keep it as stand-alone IHO publication, with the GI Registry as a basis for maintaining its S-100-related component. .  |  | Decision |
| 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 Reminder |
| 5.8 | HDWG | HSSC15/69 | Following a fruitful discussion, **HSSC** thanked the outgoing Chair for his hard work and long commitment, for his completion of the 6th Edition of the IHO Hydrographic Dictionary in particular, and welcomed the incoming Chair (former Vice-Chair).**HSSC** tasked the **GI Registry Team**[[3]](#footnote-3) and the **HDWG** **in-coming Chair and HDWG Members** at their next meeting (in Europe, tbc) to prepare the necessary steps to move the WG to a HD Correspondence Group (**HDCG**) (activated when new S-100 relevant terms need to be reviewed by the CG, and liaising with the Domain Control Body of the GI Registry appears to be necessary). As part of the activities of the future **HDCG**, maintenance of the stand-alone S-32 Publication as far as S-100 is concerned (and establishment of an interface with the GI Registry) to be implemented.. As part of the activities of the future  | **HSSC-16** |  |
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| **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** | Complete |
| 5.9 | MASS | HSSC15/70 | **HSSC** thanked the MASS PT for their final assessment analysis, identifying regional situation with regard to MASS Issues and Requirements, and S-100 Gap Analysis. |  |  |
| 5.9 | MASS | HSSC15/71 | **HSSC** welcomed IALA’s intention to cooperate with the **HSSC MASS PT** on this topic. | **HSSC-16** |  |
| 5.9 | MASS | HSSC15/72 | **HSSC** also invited the **MASS PT** to engage with the IMO Joint MSC/FAL/LEG Working Group on MASS. | **HSSC-16** |  |
| 5.9 | MASS | HSSC15/73 | Based on this report, **HSSC** noted that efforts will certainly be needed on Standards development and/or maintenance to meet Degrees 3 & 4 of autonomy. Noting the priorities and available resources in general, **HSSC** invited the **MASS PT**:* to pursue investigations in the light of official requirements (IMO, national regulations, …) to provide recommendations for amendments to existing standards and S-100 PS, and report back as a priority if needed for meeting Degrees 1 and 2 of autonomy;
* to submit TORs for a possible MASSWG at the next meeting.

Mandate of the **MASSPT** is extended accordingly until HSSC-16. | **HSSC-16** |  |
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| **5.10 Polygonal Demarcation of Global Sea Areas (S-130 PT)** |
| 5.10 | S-130 PT | HSSC15/74 | **HSSC** noted the progress made by the Project Team and approved Ed. 1.0.0 of S-130 for initial implementation, testing and evaluation (and comprehensive review by **IHO MS**). |  | Decision |
| 5.10 | S-130 Dataset | HSSC15/75 | **HSSC** confirmed the importance of producing an authoritative S-130 IHO-approved dataset.**HSSC Chair** to include these recommendations in his report to C-7. | **C-7 (17 July)** | Decision |
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| **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 | HSSC15/76(former 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). | **HSSC16** | Pending |
| 6.1 | C-51 - TALOS Ed. 6.0.0 | HSSC15/77(former 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** | Pending |
| 6.1 | C-51 – TALOS Ed. 7.0.0 | HSSC15/78(former HSSC14/79) | **HSSC** noted the requirement for a digital publication (e-book) of C-51 (Ed.7.0.0). | **HSSC-15** | Pending |
| 6.1 | ABLOS TORs | HSSC15/79(former HSSC14/80) | Iaw with Art. 2.13, **HSSC** approved the new TORs with references to be amended. |  | DecisionPending TORs to be published on IHO website |
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| **7. Decisions of other bodies affecting HSSC** |
| **7.1 IRCC (incl. MSDIWG)** |
| 7.1 | IRCC | HSSC15/80 | **HSSC** noted the report from **IRCC** and the good coordination between the two committees. |  | Decision |
| 7.1A | IHO e-learning centre | HSSC15/..(former 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.  | **HSSC-16** | Closed |
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| **7.2 IMO** |
| 7.2 | IMO | HSSC15/82 | **HSSC** noted the update on IMO matters by the HSSC Chair and the request from NCSR to provide more details with regard to the progress of individual Product Specifications against the S-100 implementation roadmap (inc. S-98), as well as expected coverage of S-100 products (inc. S-101) once they start to become available. **HSSC Secretariat** to invite the IMO Rep at the next HSSC meeting.**[WGs** to update the **HSSC Chair/IHO Secretariat** on their timelines for the preparation of the IHO report to NCSR | **HSSC-16****NCSR submission deadlines** | Complete |
| 7.2 | IMO | HSSC15/83 | **HSSC** noted the draft outcomes from MSC 107 relating to paper MSC107/15/2 and consider enhanced IMO representation at HSSC (& potentially IRCC) as the need arises.  |  |  |
| 7.2 | IMO | HSSC15/84 | **IHO Secretariat** (in liaison with **ENCWG**) to consider whether the IHO ENC & ECDIS IHO webpage needs to be amended. | **Permanent** |  |
| 7.2A | S-66, S-67 | HSSC15/85(former 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-16** | See also NIPWG work on the classification of S-100 products according to SOLAS V for development of S-128 |
|  | ENP | HSSC15/86 | Noting the proposal by the ROK MOF(Ministry of Oceans and Fisheries) submitted to IMO/MSC - Guidelines for the use of Electronic Nautical Publications to be discussed at NCSR-11 (June 2024), **NIPWG** to prepare a comment paper for **HSSC / IHO Secretariat**. | **February 2024** |  |
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| **7.3 IALA** |
| 7.3 | Joint IHO/IALA Workshop | HSSC15/87 | **HSSC** noted the information provided by **IALA** and endorsed the proposal to hold a 2nd Joint IHO-IALA S-100/S-200 Workshop in Annapolis, USA (2nd week of September 2024, *to be confirmed*).**IHO Member States** to consider participation.**IALA/IHO Secretariat** to consider the most appropriate week in September 2024. | **No later than September 2023** | Decision |
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| 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 GI Registry. | **HSSC-15** | ReminderSee [NIPWG Letter 03/2023](https://iho.int/uploads/user/Services%20and%20Standards/NIPWG/NIPWG%20Letters/2023/NIPWG_Letter_2023_03_v2.pdf) for S-125 |
|  |  |  |  |  |  |
| **7.4 IEC** |
| 7.4 | Ed. 2.0.0 PS approval timelines | HSSC15/88 | **HSSC** thanked **IEC** for their report and noted the update on the S-100 timelines.**HSSC** agreed on the cut-off time window for the **IHO** **Member States**’ approval process of Ed. 2.0.0 of all PS (Phase 1): **September – November 2024**.**NIPWG, S-124PT** and **TWCWG** invited to pay special attention on S-128, S-124 and S-104 respectively (Timelines, Annex 2 of the Roadmap refer). | **HSSC-16** **September 2024****Next WGs and PTs meetings** | Decision |
| **7.5 CIRM** |
| 7.5 | Producer Codes | HSSC15/89 | **HSSC** thanked **CIRM** for their report and noted the recommendation on the IHO to explore how S-100 could support maintenance of Data Producer Codes on in-service ECDIS. |  |  |
|  | S-64 | HSSC15/90 | **HSSC** noted **CIRM’s** view that edition 3 of S-64 should remain valid and listed on the IHO webpage with an expiration date of 1 Jan 2029. |  |  |
|  | S-128 | HSSC15/91 | **HSSC** agreed on **CIRM’s** recommendation to move moving the S-128 approval timeline into alignment with the timelines of the other product specifications critical to implementation of S-100 ECDIS, as this will avoid delay in the development of IEC 61174 edition 5. |  |  |
|  | S-164 | HSSC15/92 | **HSSC** noted the importance **CIRM** Members place on development of a robust test dataset for S-100 ECDIS (S-164). |  |  |
|  | S-100 Products versus NPs | HSSC15/93 | **HSSC** to consider supporting the work of IMO by developing a mapping table linking individual S-100 product specifications to their associated nautical publications, with a timeline on when those product specifications will be available for implementation; this information will also assist manufacturers. | **NIPWG (VTC 02/2023, September 2023)****HSSC-16** |  |
|  | S-100 Introduction Strategy | HSSC15/94 | **HSSC** agreed to consider expanding the IHO stakeholder liaison process to ensure that OEMs are consulted over the introduction strategy, as well as the technical content, of new editions of IHO standards. |  |  |
|  | EU MED | HSSC15/95 | **HSSC** noted the timeline between publication of IEC 61174 edition 5 and its incorporation into the EU Marine Equipment Directive. |  |  |
|  | Type approval versus changes in S-100 Standards | HSSC15/96 | **HSSC** tasked **S-100WG** to consider documenting a framework policy on which changes to S-100 standards impact type approval only and which impact in-service ECDIS. | **S-100WG8** |  |
|  | Sunset of S-57 | HSSC15/97 | **HSSC** noted the request from **CIRM** that the IHO considers defining a retirement date for S-57 and inform the IMO of the outcome. | **HSSC-18 (not before than 2026)** |  |
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| **7.6 ISO** |
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| 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** | Pending |
| **7.7 OGC** |
| 7.7 | OGC | HSSC15/98 | With reference to the presentation available on the HSSC-15 webpage, **HSSC** thanked the OGC for their update.  |  |  |
| 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** | Reminder |
| **7.8a DGIWG** |
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| 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. |  | ReminderDecision |
| **7.8b NATO GMWG** |
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| 7.8b | IHO GI Registry | HSSC14/99 | **HSSC** noted the request for some orientation and training on the IHO GI Registry. | **HSSC-15** | Complete. GI Registry Workshop Dec 2022. |
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| **7.9 Ocean Standards and Services** |
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| **7.10 ICPC** |
|  |  | HSSC15/99 | **HSSC** thanked the **ICPC** for the update. |  |  |
|  |  | HSSC15/100 | **HSSC** noted the **ICPC** request for the **NCWG** to revise S-4 B-443 and C-408.1 to reflect charting of cables to full ocean depth……and noting the ICPC commitment for submarine cables to be charted end-to-end, invited **NCWG** to consider it at their next meeting. Submission paper to be prepared by **ICPC**. | **NCWG 9, Nov. 2023****September 2023** |  |
|  |  | HSSC15/101 | **HSSC** noted the request from the **ICPC** to investigate the inclusion of ISA designated mining boundaries on charts.**IHO Secretariat (SG)** to consider reporting on this matter to ISA. | **Next ISA meeting** |  |
|  |  | HSSC15/102 | **HSSC** noted **ICPC’s** intention to outsource the development of a submarine cable S100 Product Specification, as potential source data for HOs. |  |  |
|  |  | HSSC15/103 | **HSSC** noted that **ICPC**, as a conduit for submarine cable positional data, will continue to develop a directory of Hydrographic Offices/Charting Authorities to aid its members to direct as laid cable positional data. |  |  |
|  |  |  |  |  |  |
| **8. AOB - Review and Endorsement of HSSC Work Plan 2023-24 and List of Actions** |
|  | HSSC TORs | HSSC15/104 | **HSSC** agreed to submit an amendment to the HSSC TORs and ROPs to the approval of the Council at C-7, aiming to include the RENCs in the HSSC Membership, and when there is no Open Stakeholders’ Session along HSSC meetings, Expert Contributors from industry on a case-by-case basis, by invitation of the Chair.**HSSC Chair Sec** to prepare submission to the Council-7. | **C-7 (17 July)** | Decision |
|  | New Editions and Publications | HSSC15/105 | With new Editions and Publications approved at HSSC-15 (S-100, S-131, S-164, S-68, S-124, S-130, and B-13), **IHO Secretariat** to recap their entry-into-force for initial implementation, evaluation and testing, through an IHO CL. | **July 2023** |  |
|  | Work Programme | HSSC15/106 | **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. | Deadline for **WGs** to submit **31 July****September 2023**  | Decision |
|  | IHO Resolution 2/2007 | HSSC15/107(former HSSC14/101) | With new publications, Editions (B-13, S-68, S-67), **HSSC Chair Group** to consider the need to review the Appendices of the IHO Resolution 2/2007 as amended. | **HSSC-16** | Pending |
| **9. Election of Chair and Vice-Chair** |
| 9 | Chair/Vice-Chair | HSSC15/108 | **HSSC** re-elected Mr Magnus Wallhagen (Sweden) and Ms Nathalie Leidinger (France) as Chair and Vice-Chair of the HSSC by acclamation. |  | Decision |
| **10. Date & Location of the next meetings** |
| 10 | HSSC-16 | HSSC15/109 | **HSSC** welcomed the offer confirmed by Japan, to host HSSC-16 from 27 to 31 May 2024 in Tokyo. |  | Decision |
| 10 | HSSC-17, -18 | HSSC15/110 | **HSSC** also welcomed the options offered:* by Norway for hosting HSSC-17 in 12 – 16 May 2025 in Stavanger;
* by Poland for hosting HSSC-18 in Gdansk, 2026.
 | **HSSC-16** | Decision |
| 9 | HSSC and WGs Office Bearers | HSSC15/111(former 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. | **Next WGs meetings** |  |
|  | Stakeholders’ Session | HSSC15/112 | **HSSC** thanked the Stakeholders for their very valuable presentations and for fruitful discussions triggered by their recommendations on S-100. |  |  |
|  | HSSC Secretary | HSSC15/113 | **HSSC** thanked **Director Abri Kampfer, HSSC Secretary**, for his last 6 years at the helm of HSSC for the IHO Secretariat. |  |  |

1. Subject to confirmation by IRCC. [↑](#footnote-ref-1)
2. S-100WG/IHO Secretariat. [↑](#footnote-ref-2)
3. \*Team = TSSO [↑](#footnote-ref-3)