**LIST of DECISIONS & Actions arising from HSSC-12**

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| **AGENDA**  **ITEM** | **SUBJECT** | **ACTION**  **No.** | **ACTIONS**  **(in bold, action by)** | **TARGET**  **DATE/EVENT** | **STATUS**  **(at 27 Nov. 2020)** |
| --- | --- | --- | --- | --- | --- |
| **1. Opening and Administrative Arrangements** | | | | | |
|  | Contact List | HSSC12/01 | **IHO Member States** and **Stakeholders** to provide the IHO Sec. with their updates to the HSSC List of Contacts. | **Permanent** | Last update  26 November 2020 |
|  | Attendance | HSSC12/02 | **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, 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. | **Permanent** |  |
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| |  | | --- | | **2. Approval of Agenda** | | | | | | |
|  | Agenda and Timetable for HSSC-12 | HSSC12/03 | **HSSC** approved the agenda and associated timetable. |  | Decision |
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| **3. Matters arising from Minutes of 11th HSSC Meeting** | | | | | |
|  | Pending Actions | HSSC12/04 | **HSSC** invited participants to refer to the status report on the list of actions from HSSC11 and agreed to consider the pending actions from HSSC11 under the relevant agenda items**.** |  | Decision |
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| **4. HSSC Administration** | | | | | |
| 4.2 | S-100 Master Plan | HSSC12/05  (former HSSC11/09) | When the S-100 Implementation 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 possibility of adding 3 annexes related to the IHO Work Programme 1, 2 and 3. | **HSSC-13**  **A-2** | In progress |
| 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 |
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| **5. Reports by HSSC Working Groups** | | | | | |
| **5.1 S-100 (S-100WG)** | | | | | |
| 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 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]](#footnote-1), S-129) and the need for any other S-100 based products out of the IHO remit (such as S-411 - *Ice information*)[[2]](#footnote-2) that are considered valuable to the S-100 Implementation Plan and advise accordingly. | **HSSC-13** | Decision |
| 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 - *IHO Guidelines for Creating S-100 Product Specifications* |  | Decision |
| 5.1 | S-98 | HSSC12/10 | **HSSC** noted the progress made in the development ofEd. 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. Implementation 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  Done |
|  | S-1OOP  S-100 Open Online Platform | HSSC12/13 | **HSSC Chair** to update A-2 on S-1OOP 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 |
| 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 (*Essential Principles of Operation*) 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  Done |
| 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)** |  |
|  | 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  **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 operational 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** | Decision  Done.  Some proposals to be considered for HSSC13 |
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| |  | | --- | | **5.2 ENC Standards Maintenance (ENCWG)** | | | | | | |
| 5.2 | HD ENC | HSSC12/21 | **HSSC** noted the publication of IHO S-65 Annex A, *HD ENC Production and Maintenance Guidance*, 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 |
| 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.  Meanwhile, the ENC Generalization paper will be published by the **IHO Secretariat** who will consider the available different options as appropriate. | **HSSC-13** | 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 |
| 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.  **IHO Sec.** to subsequently publish the corresponding clarifications on the IHO website > Standards and Publications. | **HSSC-13** | Decision  Done for S-63 (March 2020), in progress for S-52, S-64 (Jan 2021) |
| **5.3** **Nautical 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 options. | **NCWG-6** | Decision  Done |
| 5.3 | Maritime Services, e-navigation | HSSC12/32  (former 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. | **Permanent** |  |
| 5.3 | Marine Harbour Infrastructure | HSSC12/33 | **HSSC** agreed on the allocation of *S-131* 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** |  |
| 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 |
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| **5.4 Nautical Cartography (NCWG)** | | | | | |
| 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 IHO Baseline Symbology’ including basic symbol sets and rules.] | **NCWG-6**  **HSSC-13** | Done |
|  | 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** |  |
| 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.  **NCWG Sec** to provide IHO Secretariat with the corresponding red-line version of S-4, English version.  **IHO Secretariat** to issue an IHO CL seeking the approval of MS on Ed. 4.9.0 | **November 2020**  **January 2021** | Decision  Done |
| 5.4 | NCWG TORs | HSSC12/43 | **HSSC** approved the amendments to the TORs as presented (with some editorial corrections to be made).  **IHO Secretariat** to make the new TORs available. | **January 2021** | Done |
| 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 |
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| **5.5 Data Quality (DQWG)** | | | | | |
| 5.5 | S-67 | HSSC12/46 | **HSSC** invited **Member States, France** and **Spain** in particular, to consider the possibility of translation of S-67 Ed.1.0.0. | **HSSC-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 |
| 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** |  |
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| **5.6 Project Team on Standards for Hydrographic Surveys (HSPT)** | | | | | |
| 5.6 | 6th 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 through IHO CL. | **December 2020** | Decision  Done (IHO CL 36/2020) |
| 5.6 | Implementation of S-44 Ed. 6.0.0 | HSSC12/52 | **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.). | **HSSC-13** |  |
| 5.5 | S-44 Ed. 6.0.0 | HSSC12/53 | **HSSC** invited Member States, France and Spain in particular, to consider the possibility of translation of S-44 Ed.6.0.0. | **HSSC-13** |  |
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| **5.7 Tides, Water Level and Currents (TWCWG)** | | | | | |
| 5.7 |  | HSSC12/54 | **HSSC** honoured the memory of Dr Kurt Hess (US), active TWCWG Member, who passed away in June 2020…  …and agreed to put some words in the acknowledgement section of S-111 Product Specification. | **TWCWG/IHO Secretariat** | Decision |
|  |  | 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 request made by **TWCWG** to **IRCC** (and its **CBSC-SC**) on the possible needs for translation of tide & hydrographic lessons into other languages. | **December 2020** | In progress |
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| **5.8 Hydrographic Dictionary (HDWG)** | | | | | |
|  | Participation in HDWG | HSSC12/58  (former HSSC11/61) | **RU** to consider the possibility of appointing a member to the HDWG. | **HSSC-13** |  |
|  | HDWG-3, 2021 | HSSC12/59 | **HSSC** supports the principle of a face-to-face meeting in 2021. |  | Decision |
|  | Hydrographic Dictionnary, Encyclopaedic Structure | HSSC12/60 | **HSSC** confirmed the principle of maintaining the Hydrographic Dictionary in its present encyclopaedic structure rather than downgrading it to a simpler glossary. |  | Decision |
|  | Chairmanship | HSSC12/61 | **HSSC** commended Ingenieur general (Reserve) Jean Laporte (FR), out-going Chair of the HDWG, for his dedication and commitment. |  |  |
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| **6. Inter-Organizational Bodies** | | | | | |
| **6.1 IHO-IAG Advisory Board on the Law of the Sea (ABLOS)** | | | | | |
| 6.1 | ABLOS | HSSC12/62 | **HSSC** commended **ABLOS Chair** and the Board for their report and approved the continuation of their work as planned. |  |  |
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| **7. Decisions of other bodies affecting HSSC** | | | | | |
| **7.1 IRCC (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 |
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| **7.4 IEC** | | | | | |
|  |  | 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 CIRM** | | | | | |
|  |  | 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 |
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| **9.**  **Review and Endorsement of HSSC Work 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 Work Plan accordingly. | **January 2021** | Decision  Done |
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| **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 nominations as soon as possible (Asap). | **Asap/HSSC-13**  **Asap** | Decision  In progress |
| **10. Date & Location of the next meetings** | | | | | |
|  | 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 |

1. Subject to confirmation by IRCC. [↑](#footnote-ref-1)
2. S-100WG/IHO Secretariat. [↑](#footnote-ref-2)