

**Paper for Consideration by  
5th EAHC Steering Committee Meeting  
IHO Secretariat Report**

<b>Submitted by:</b>	Secretariat of the IHO
<b>Executive Summary:</b>	This paper reports on activities of the IHO Secretariat that may impact the work of the 5th EAHC Steering Committee Meeting.

### **Entry into force of the Amendments to the IHO Convention**

1. The Amendments to the IHO Convention and its supporting Basic Documents entered into force on 8 November 2016. Since last EAHC Steering Committee Meeting the following events took place:

- The first session of the IHO Assembly (A-1) was held in Monaco from 24 to 28 April 2017, at which time the IHO Council was established and decisions were agreed. The Assembly elected Dr Mathias Jonas as the Secretary-General and Abri Kampfer and Mustafa Iptes as Directors, who took office on 1 September 2017. The second session of the IHO Assembly (A-2) will happen in April 2020;
- The first meeting of the Council (C-1) took place from 17 to 19 October 2017 and will meet annually thereafter. The subsidiary organs of the IHO reported to the Council that will then referred endorsed proposals for adoption either to the Assembly or to the Member States through correspondence;
- The current planning cycle for the IHO work programme and budget started in 1 January 2018 and will run to 2020.
- Important to note that when voting by correspondence is required, through the Council, decisions will be taken based on a majority of the Member States that cast a vote, rather than the previous arrangements where a majority of all the Member States entitled to vote is required. A minimum number of at least one-third of all Member States eligible to vote must vote positively for the vote to stand.

### **Status of Membership of the IHO**

2. One of the main changes resulting from the entry into force of the revised IHO Convention is that, for States wishing to join the IHO that are already Member States of the United Nations, there is no requirement to seek the approval of existing Member States of the IHO. In 2017 **Malta, Vanuatu** and in January 2018 **Seychelles** acceded to the IHO Convention and became the 86<sup>th</sup>, 87<sup>th</sup> and 88<sup>th</sup> Member States of the IHO respectively. The following States: Bulgaria, Congo, Haiti, Malta, Mauritania, Sierra Leone and Solomon Islands that have already applied for membership of the IHO, may now submit their instruments of accession to the Convention on the IHO and thereby become members immediately. In 1 January 2018 **Dominican Republic** was reinstated as Member State, suspended since 1983.

3. The following Observer members of the EAHC have yet to apply to become members of the IHO: Cambodia and Timor Leste. Both countries are Member States of the UN and the EAHC is encouraged to engage with them in order to raise awareness on the importance and value of hydrography.

### **INT Chart and ENC Production Coordination - Region K**

4. According to the IHO Secretariat records, Japan (Mr Kenichi Noguchi), is the designated INT Chart / ENC Coordinator for Region K.

5. The status of the INT chart scheme for region K is contained in Edition 3.0.0 of S-11 Part B which was made available in January 2016. According to the S-11 Part B Web Catalogue, there are 294 charts (and/or plans) in the scheme, of which 240 have been published (82%). No updates have been received for more than two years from Region K members. It is not known if it is because **out of 10 EAHC Members in Region K only China, Japan, Malaysia and the Republic of Korea** have requested an ID and password in order to manage the INT chart database or if it is because the current INT chart coverage and database is considered

up-to-date and satisfactory. Early January 2018, the IHO Secretariat informed the Chart Coordinators that the project INTToGIS Phase II was underway, thanks to the outstanding support provided by KHOA (Republic of Korea). For more information, see Doc. [HSSC9-11A-INF1](#). Since the publication of Ed. 3.1.0 of S-11 Part A, INTToGIS Phase II aims to provide a very useful scheming tool, putting together ENC and INT charts.

6. Adoption of Ed. 3.10.0 of IHO Publication S-11 Part A requires new arrangements for the monitoring of INT charts (CL 11/2018 refers).

7. The representative of the EAHC at the WENDWG (Region K Coordinator, Hong Kong, China) participated in the 7<sup>th</sup> meeting (January 2017) of the WENDWG.

8. The elimination of overlapping ENC data that are navigationally significant is one of the main objective of the WEND Principles. A new IHO Resolution addressing this issue was adopted by IHO Member States (See. IHO CL 19/2018 – *Adoption of new IHO resolution on the elimination of overlapping ENC data*). WENDWG will consider the outcome of this resolution at its 8<sup>th</sup> meeting scheduled from 20 to 22 March 2018 in Buenos Aires, Argentina.

9. At its 13<sup>th</sup> meeting in Monaco (January 2018), the Data Quality Working Group arranged a workshop where participants shared their best practices on the way CATZOC values are populated for S-57 ENCs by Hydrographic Offices. In order to facilitate the harmonization and prepare the future transition to S-101 ENCs, it is recommended that EAHC ENC Producers provide their guidelines to the DQWG.

10. The EAHC ENC Producers who distribute their ENCs through a RENC are also encouraged to consider the Proposed Joint RENC policy on the use of ENC CATZOC data by the IHO Secretariat (Joint RENC PRIMAR IC-ENC Letter dated 5 July 2017).

**11. Recommendations. EAHC to consider:**

- a) providing report and inputs to the WENDWG, prior to the 8<sup>th</sup> meeting in March
- b) providing CATZOC practices to the DQWG
- c) the policy on the use of CATZOC values by the IHO Secretariat
- d) the maintenance of ENC Schemes when the INTToGIS Phase II is commissioned

**Maritime Safety Information Services**

12. **MSI Capability and Supportability.** The IHO Capacity Building strategy lays particular emphasis on the fundamental capability for all coastal States to provide a maritime safety information (MSI) service in support of their international obligations. Based on reports by the NAVAREA Coordinators to the IHO World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC) a continuing area of concern is the apparent inability for countries to support the recipients of IHO MSI training or achieve continuity of employment of these individuals within this area of responsibility.

13. **Recommendations.** In order to assist in identifying priorities for the provision of MSI Training, the Chair is requested to encourage all coastal States to:

- a) provide the regional NAVAREA Coordinator(s) with regular flow of MSI;
- b) maintain regular communication with the regional NAVAREA Coordinator(s) and inform of any change of personnel or contact details; and
- c) use and following the guidance provided in S-53 – *Joint IMO/IHO/WMO Manual on Maritime Safety Information*;

14. **Recommendation.** The Chair is requested to direct the regional NAVAREA Coordinator(s) to provide a clear indication on the state of the provision of MSI within the area of the RHC, including the numbers of messages received from each coastal State, whether this has improved on completion of any MSI Training and identify those coastal States with whom there has been no contact over the intervening period since the last meeting of the RHC. He is also requested to direct the regional NAVAREA Coordinator(s) and the regional CB Coordinator to identify a priority list of states in need of MSI Training.

15. It should be noted that the majority of States lie within NAVAREA XI with only the Russian Federation

covered by NAVAREA XIII. A recurring theme is the number of organizations and authorities (Hydrographic Department, Maritime Bureau, Marine and Ports Authority, Coast Guard, Navy, etc) within individual states which appear to issue navigation warnings without central national coordination. This results in varying standards and quality of MSI provision to the NAVAREA Coordinator(s) and can result in that important messages and details can be missed or not understood.

16. **Recommendation.** Personnel from all national agencies authorized to issue MSI are given appropriate training.

17. It remains vital that all planned and programmed activities with potential to impact on the maritime community are notified well in advance in accordance with S-53. Failure to do so can endanger ships and crews.

18. **Recommendation.** The Chair to remind all coastal States of their SOLAS obligations and to follow the requirements of S-53.

### **Capacity Building Programme**

19. The level of activity of the IHO Capacity Building (CB) Programme decreased in 2017. Expenditure in the IHO 2017 CB Work Programme (625 952 Euros) was 18% smaller than the budget for the previous year. Ongoing financial support is provided by the Nippon Foundation of Japan, the Republic of Korea and by a contribution from the IHO budget with in-kind support from Member States and from industry. The Directing Committee is continuing its campaign to find additional donor States and funding organizations. In 2017, 80% of the budgeted work program was executed and paid for.

20. The EAHC benefited from seven activities under the IHO CB Work Programme (CBWP) since the last meeting:

- Technical Visit to Cambodia, 3-5 April 2017.
- Training for Trainers - Basic Hydrography, Busan, ROK, 4-15 December 2017
- Hydrographic Survey for Disaster Management and Relief, Jakarta, Indonesia, 11-15 September 2017
- Lidar and Satellite Derived Bathymetry Workshop, Tokyo, Japan, 30 January - 01 February 2018
- Mr Muhammad Aizat AZMI (Malaysia) and Mr Aree HWANLABEH (Thailand), attended the 2017 edition of the UKHO Category "B" programme (IHO - Nippon Foundation CHART Project).

21. The following activities that will benefit the EAHC are included in the 2018 CBWP.

- Use of GNSS for tide correction for survey (postponed from 2017 CBWP).
- Technical Visit for Timor Leste, pending confirmation on its need by the EAHC, as a similar visit was conducted in 2016.
- Carto Production DB System Development Workshop (pending funding).
- Maritime Safety Information (MSI) Course (pending funding).
- Review of Basic Carto Workshop (pending funding).

22. **Master of Science Programme in Hydrographic Surveying at the University of Southern Mississippi (USA).** A call for applications was issued in [CL 53/2017](#) for the 2018-2019 session of the Master of Science Programme in Hydrographic Surveying at the University of Southern Mississippi (USA) sponsored by the Republic of Korea. Selected student(s) will be announced in mid-March. This programme is likely to continue in future years and Hydrographic Offices are invited to invest in the preparation of candidates especially with respect to proficiency in English for future sessions.

23. **IHO - NIPPON FOUNDATION CHART PROJECT.** A call for applications was issued in [CL 04/2018](#) for the 2018 session of the IHO - Nippon Foundation CHART Project 10th Course in Marine Cartography and Data Assessment (FIG/IHO/ICA Category "B" Programme) at the UKHO, sponsored by the Nippon Foundation of Japan. Deadline is 30 March 2018.

## Crowd-Sourced Bathymetry

24. In accordance with Decision 8 of the EIHC5, IRCC7 established the Crowdsourced Bathymetry Working Group (CSBWG) to provide guidelines on the collection and use of crowdsourced bathymetry. Member States and other interested parties were invited to nominate representatives to participate in the CSBWG (see IHO CL 42/2015). The CSBWG has developed the draft IHO publication B-12 – *IHO Guideline on Crowdsourced Bathymetry*, which has completed extensive stakeholder and IHO member State consultation. Edition 1.0.0 will be presented to IRCC10 for endorsement, prior to submission to IHO Council-2 and IHO member States for approval. It is considered that the publication will have a formal publication date of 1 January 2019. Work has commenced on the draft of Edition 2.0.0, taking into account a number of topics, for which additional time and investigation were identified as being required; additionally as a result of Decision C 1/31 to enlarging the scope of the tasking of the CSBWG, the CSBWG drafted revised ToRs for submission to IRCC10.

25. The web-based interface portal to the IHO Data Center for Digital Bathymetry, hosted by the USA in Boulder, Colorado, as part of its commitment to the system of World Data Centres, is being upgraded to be compatible with the crowdsourced bathymetry concept. This will enable an IHO-led CSB infrastructure to be established and promoted in the IMO and across the wider maritime community.

## IHO GIS and Databases

26. Work has continued on the development of the IHO GIS which is composed of two main parts:

- a country information database, and
- a regional information database.

27. The country information database has been progressively upgraded to include additional administrative information and facilitate the maintenance of the IHO Yearbook (IHO Publication P-5) and related lists posted on the IHO website. Countries in the EAHC Region are invited to review their entry in the Yearbook on an annual basis and provide the IHO Secretariat with the appropriate updates or report no change. The status of the data in the IHO Country Information Database concerning the EAHC Countries, including those provided for C-55, is as follows:

Country	P-5 – Yearbook Last update received	C-55 Last update received
Brunei Darussalam	Oct-17	
Cambodia	No data (has not been updated long time)	3/12/2004
China - (including Hong Kong and Macau SAR)	May-17	6/9/2005
Democratic People's Republic of Korea	Dec-13	5/31/2017
Indonesia	Oct-17	5/31/2017
Japan	May-16	4/1/2010
Japan Minami Tori Shima	N/A	4/1/2010
Malaysia	Feb-16	2/16/2009
Marshall Islands	Feb-17	12/19/2016
Palau	Feb-15	2/13/2018
Philippines	May-16	5/31/2017
Republic of Korea	Mar-17	2/9/2012

Country	P-5 – Yearbook Last update received	C-55 Last update received
Russian Federation - Area K	Aug-16	8/1/2011
Singapore	Aug-16	6/5/2017
Timor Leste	Dec-17	5/4/2016
United States of America - Guam and Wake Island	Aug-16	2/13/2018
Viet Nam	Nov-15	5/31/2017

28. An Esri-based GIS solution is being implemented to develop further the regional information database. This will enable access to various layers of information through the IHO website and through cloud-based on-line GIS options. The IHO ENC Catalogue and the IHO GIS for Antarctica have been transferred to this new environment.

29. Work has continued on developing a GIS database application to support C-55 - *Status of Hydrographic Surveying and Charting Worldwide* and the work of the IHO. In response to the request to complement C-55 composite data (percentage of areas adequately surveyed / requiring re-survey / not surveyed) with CATZOC information (see [IHO CL 52/2015](#)), CATZOC data was provided by PRIMAR - on behalf of IC-ENC, PRIMAR and Canada, Singapore, Sweden and Thailand. Useful options for visualizing the data in the IHO C-55 GIS are being investigated.

30. **Recommendation.** Countries in the EAHC Region are invited to review their entry in the IHO Yearbook and C-55 and to provide the IHO Secretariat with the appropriate updates or to report no change.

### Preparation of the next meeting of the IHO Council

31. The main outcomes of the 1<sup>st</sup> meeting of the IHO Council were reported in [IHO CL 55/2017](#).

32. The second meeting of the IHO Council is scheduled to take place in London, UK, from 9 to 11 October 2018. The preparation of this meeting has started, in liaison with the host country. It can be noted that in accordance with the Rules of Procedures of the Council, the deadline for submission of proposals by IHO Member States is 9 July 2018, while comments on proposals to be included in the Red Book for the Council will be expected by 31 July 2018.

### IHO Outreach

#### World Hydrography Day

33. Taking into account the discussions at the IHO Council meeting held in Monaco in October 2017, the theme of the World Hydrography Day for 2017, as announced by [IHO CL 03/2018](#), is:

***“Bathymetry – the foundation for sustainable seas, oceans and waterways”***

### International Hydrographic Review

34. Twice a year, the IHR provides an opportunity for Member States to publicize technical and other achievements in their region. An editorial board comprising a representative from each region has been established. The representative for the EAHC is Dr. Hideo NISHIDA (Japan-JHA).

35. Papers for consideration for publication in the IHR should be forwarded directly to the editor ([ihreview@iho.int](mailto:ihreview@iho.int), copy to [ian.halls1@defence.gov.au](mailto:ian.halls1@defence.gov.au)). The deadlines are:

- end of January for the May Edition
- end of July for the November Edition

36. The IHO Secretariat has been working with the University of New Brunswick (UNB), Canada, in a

project to develop a digital repository of the complete library of the IHR. As a result, the first phase of the project now provides access to volumes from 1963 to 2015. They can be found at: <https://journals.lib.unb.ca/index.php/ihr>.

**37. Action Requested of EAHC:**

- a) **Note** this report
- b) **Consider** the recommendations on Charting as presented in **Paragraph 11**
- c) **Consider** the recommendations on MSI as presented in **Paragraphs 13, 14, 16 and 17**
- d) **Consider** investing in the preparation of candidates for the Category "A" hydrography programme (**Paragraph 22**)
- e) **Consider** applying for the Category "B" cartography programme (**Paragraph 23**)
- f) **Review** entries related to IHO C-55 and P-5 (Yearbook) at least annually (**Paragraph 31**)
- g) **Consider** appropriate arrangements to prepare for the 2<sup>nd</sup> Meeting of the IHO Council (**Paragraph 33**)
- h) **Consider** submitting papers for publication in the International Hydrographic Review (**Paragraph 36**)
- i) **Take any other actions** as considered appropriate