

Paper for Consideration by SWPHC
IHO Secretariat Report

Submitted by:	Secretariat of the IHO
Executive Summary:	This paper reports on activities of the IHO Secretariat that may impact the work of the SWPHC.

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 SWPHC14 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 existing 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 **Seychelles** acceded to the IHO Convention and became the 86th, 87th and 88th 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 Associate members of the SWPHC have yet to apply to become members of the IHO: **Cook Islands**, **Kiribati**, **Niue**, **Palau**, and **Samoa**. All, except Cook Islands and Niue, are Member States of the UN. **Cook Islands** and **Niue**, as non-Member States of the UN, are required to seek the approval of the IHO Member States. The SWPHC is encouraged to engage with **Nauru** and **Tuvalu** (coastal States in the Region that are not Associate Members) and **Marshall Islands** and the **Federated States of Micronesia** (Members of the Pacific Community) to raise awareness on the importance and value of hydrography.

INT Chart and ENC Production Coordination - Region L

4. The current web-based version of S-11 Part B for Region L is Edition 3.0.3 dated January 2018. This new edition reports that 62 INT charts are available to date, out of 67 charts in the scheme. The Region L INT Chart Coordinator maintains regular contacts with the IHO Secretariat, which is much appreciated. 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. 3.0.0 of S-11 Part A, INTtoGIS Phase II aims to

provide a very useful scheming tool, displaying both ENC and INT charts.

5. Following IHO CL 11/2018 (adoption of Ed. 3.10.0 of S-11 Part A), it should be noted that new arrangements for the monitoring of INT charts are now in place.

6. The representative of the SWPHC at the WENDWG (Region L Coordinator, Australia) was unable to participate in the 7th meeting (January 2017) of the WENDWG. Even if there is no participation of the SWPHC at the 8th meeting of the WENDWG (March 2018), it would be still of the interest of the working group to get the report (implementation of ENC schemes, consistency with INT charts, overlap monitoring, maintenance, ...), inputs and recommendations from the region (ppt format is sufficient).

7. 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 8th meeting scheduled in March 2018 in Argentina.

8. At its 13th 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 SWPHC ENC Producers provide their guidelines to the DQWG.

9. SWPHC 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).

10. Recommendations. SWPHC to consider:

- a) providing report and inputs to the WENDWG, prior to the 8th 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
- e) keeping to the IHO Secretariat informed of the existence of their bilateral agreements if they act as primary charting authorities on behalf of small island States.

Regional Hydrographic Capability

11. The IHO will be represented at the 19th session of the Asia Pacific Heads of Maritime Safety Authorities (APHoMSA) in April in Chile by Chile who will provide a status report on hydrographic capability and stress the obligation for providing an appropriate national hydrographic service that is placed upon Maritime Administrations through SOLAS V/9 and the fact that this was an auditable obligation under the IMO Member States Audit Scheme (IMSAS). The IHO stands ready to support coastal States to prepare for IMSAS. This was recently done for Cabo Verde with successful results, funded by the IHO CB Fund. The Annex shows the assessment made in the IHO Secretariat for the countries from SWPHC.

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. The Chair 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 Island States rely on NAVAREA Coordinators X and XIV for their MSI service. Both Australia and New Zealand have expended considerable resources in support and training - with mixed results, although recently NAVAREA XIV has indicated improvements in communication and stability in personnel.

16. **NAVTEX Services.** There are no NAVTEX services within NAVAREA X and XIV, all coastal warnings are transmitted via SafetyNET.

17. **GMDSS Master Plan. Recommendation.** Member states are encouraged to check the information published in the IMO GMDSS Master Plan and that published by the IHO in C-55 (see also paragraph 24), which, despite asking for the same information, often contain completely different data. This results in incorrect assessments being made on the level of assistance required and where MSI training is most needed.

Capacity Building Programme

18. The level of activity of the IHO Capacity Building (CB) Programme continued to increase. Expenditure in the IHO 2015 CB Work Programme (930,907 Euros) was 118% greater than the budget for the previous year. This was a result of the ongoing financial support provided by the Nippon Foundation of Japan and the Republic of Korea, supplemented by a contribution from the IHO budget and 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 2015, 86% of the budgeted work program was executed and paid for.

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

- Mr. Mr Kelepi BAINIVALU from Fiji attended the 2017 edition of the UKHO Category "B" programme (IHO - Nippon Foundation CHART Project)

20. The following activities that will benefit the SWPHC are included in the 2018 CBWP.

- MBES training for Fiji (postponed from the 2017 CBWP)
- Samoa Technical Implementation Visit
- Niue Technical Implementation Visit
- Technical Workshop on Implementing Hydrographic Governance
- MSI Regional Workshop

21. **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. 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.

22. **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

23. 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 State approval, it is hoped 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.

24. 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

25. 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.

26. 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 SWPHC 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 SWPHC Countries, including those provided for C-55, is as follows:

Country	P-5 – Yearbook Last update received	C-55 Last update received
Australia	June 2016	May 2016
Cook Islands	No information provided	July 2014
Fiji	January 2015	May 2007
France	November 2017	July 2017
Kiribati	February 2014	May 2007
Marshall Islands	Unknown	May 2007
Micronesia	No information provided	No information provided
Nauru	February 2016	May 2007
New Zealand	December 2013	March 2014
Niue	No information provided	March 2014
Palau	February 2015	Limited information provided

Country	P-5 – Yearbook Last update received	C-55 Last update received
Papua New Guinea	March 2015	Unknown
Samoa	No information provided	March 2014
Solomon Islands	April 2015	November 2012
Timor Leste	September 2016	May 2016
Tonga	January 2015	March 2014
Tuvalu	Unknown	May 2007
United Kingdom	August 2015	January 2010
United States of America	August 2016	April 2012
Vanuatu	March 2016	March 2004

27. 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.

28. 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.

29. Countries in the SWPHC Region are invited to review their entry on an annual basis and to provide the IHO Secretariat with the appropriate updates or to report no change.

30. **Recommendation.** Countries in the SWPHC 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. Australia is selected by the SWPHC for having a seat at the Council. France, the United Kingdom and the United States of America have also a seat at the Council. The main outcomes of the 1st 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 2018, 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 SWPHC is IGA Bruno Frachon (France).

35. Papers for consideration for publication in the IHR should be forwarded directly to the editor (ihreview@iho.int, copy to 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 SWPHC:

- a) **Note** this report
- b) **Consider** the recommendations on Charting as presented in **Paragraph 10**
- c) **Consider** the recommendations on MSI as presented in **Paragraphs 13, 14 and 17**
- d) **Consider** investing in the preparation of candidates for the Category "A" hydrography programme (**Paragraph 21**)
- e) **Consider** applying for the Category "B" cartography programme (**Paragraph 22**)
- f) **Review** entries related to IHO C-55 and P-5 (Yearbook) at least annually (**Paragraph 30**)
- g) **Consider** appropriate arrangements to prepare for the 2nd Meeting of the IHO Council (**Paragraph 32**)
- h) **Consider** submitting papers for publication in the International Hydrographic Review (**Paragraph 34**)
- i) **Take any other actions** as considered appropriate

Table Showing the Status of the Provision of Hydrographic Services in the Asia-Pacific Region

(based on information available to the IHO Secretariat)

Country	IMO Member State	IHO Member State	APHoMSA Member	Principal Charting Authority	Is there a Formally Nominated Hydrographic Authority
Australia	✓	✓	✓	AU	✓
British Overseas Territory - Pitcairn Is		✓		GB	✓
Cook Is	✓		✓	NZ	✓
Fiji	✓	✓	✓	FJ/GB	✓
French Overseas Collectivities - New Caledonia. Wallis & Futuna, French Polynesia	✓ France	✓ France	✓ New Caledonia	FR	✓
Kiribati	✓		✓	GB	No
Marshall Islands					
Micronesia			✓	US	
Nauru				GB	
New Zealand	✓	✓	✓	NZ	✓
Nuie			✓	NZ	No
Palau	✓			US	
Papua New Guinea	✓	✓	✓	AU	✓
Samoa	✓			NZ	No
Solomon Is	✓		✓	GB (AU ¹)	✓
Timor Leste	✓				
Tokelau				NZ	No
Tonga	✓	✓		NZ	✓
Tuvalu	✓		✓	GB	
United States Insular Areas - N. Mariana Is, Guam, American Samoa		✓		US	✓
Vanuatu	✓	✓		GB	

1 GB in process of transferring to AU