



**INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MESO AMERICAN - CARIBBEAN SEA HYDROGRAPHIC COMMISSION**



18th MEETING OF THE MESO AMERICAN - CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC18)
Varadero, Cuba
29 November-02 December 2017

Report of the IHO Secretariat

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| Submitted by: | IHO Secretariat |
| Executive Summary: | This paper provides a summary report of matters of interest related to the work of the IHO Secretariat. |

Status of Membership of the IHO

1. Malta and Vanuatu have become 86th and 87th Member States of the IHO during the report period. 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. Accordingly, the following States: Bulgaria, Congo, Haiti, 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.

2. The following Associate Members of the MACHC have yet to apply to become members of the IHO: Antigua and Barbuda, Barbados, Belize, Costa Rica, El Salvador, Guyana, Haiti, Honduras, Nicaragua, Panama, Saint Lucia, St. Kitts and Nevis, and St. Vincent and the Grenadines. All are Member States of the UN. The members and associate members of the MACHC are encouraged to engage with the other coastal States in the region to raise awareness of the value and importance of hydrography and to encourage them to become members of the MACHC and the IHO (Bahamas, Dominica and Grenada). Dominican Republic is a suspended Member State of the IHO and is working to be reintegrated to the Organization.

3. The IHO Secretariat, in cooperation with the Department of External Relations of the Government of Monaco, stands ready to assist, through diplomatic or other channels, for membership of the IHO of non-member States in the MACHC region.

INT Chart and ENC Production Coordination - Region B

4. The current web-based version of S-11 Part B for Region B is edition 3.0.1 dated February 2017. This new edition reports that 50 INT charts are available to date, out of 82 charts in the scheme (61%). It is expected that a new edition will be released, in liaison with the regional INT Chart Coordinator (Brazil), after the MACHC18. The member States of the MACHC are encouraged to continue to support Brazil, as INT Chart coordinator, in providing the IHO Secretariat with regular updates to S-11.

5. The Region B ENC Scheme Coordinator (USA) actively participated in the 7th meeting of the WENDWG (January 2017).

6. There is no significant ENC overlap in the MACHC Region. MACHC region Member States are invited to approve the new IHO Resolution on the Elimination of the Overlapping ENC data (IHO CL 65/2017 refers).

7. All MACHC region Member States are also invited to provide the IHO Secretariat with regular updates to C-55 on at least an annual basis. The IHO Secretariat would be grateful for delegates to forward updated information to the Secretariat at info@iho.int or via mail.

IHO GIS and Databases

8. 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.

9. IHO Yearbook. The country information database has been progressively upgraded to include additional administrative information and to facilitate the maintenance of the IHO Yearbook (IHO Publication P-5) and related lists posted on the IHO website. Countries in the MACHC Region are invited to check their entry in the Yearbook and to provide the IHO Secretariat with any updates or report no change.

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

11. C-55. 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 IHB C-55 GIS continue to be investigated.

12. On-line Registration for IHO Meetings. The Secretariat has introduced an online registration system, financed and developed by the Republic of Korea, for IHO meetings. Anyone that has not previously registered for a meeting must firstly register their identity so as to obtain a password. Thereafter, that person can register for any meeting for which they are entitled to attend.

Outcomes of the 1st Session of the IHO Assembly

See document IRCC9-08A and CL 48/2017 dated 22 August.

Outcomes of the 1st Meeting of the IHO Council

See CL 55/2017 dated 31 October.

IHO Outreach

13. The theme of World Hydrography Day 2017 (WHD 2017) "Mapping our seas, oceans and waterways - more important than ever" (CL 61/2016 dated 4 November refers) is intended to focus attention on raise awareness of the current lack of comprehensive data to underpin many maps and charts of the seas and oceans. The theme also promotes and encourages innovative supplementary data gathering and data maximizing initiatives already under investigation in the IHO, including crowd-sourced bathymetry (volunteered geographic data) and satellite-derived bathymetry. This, in turn, will help to promote the increasing role of those involved in hydrography in maritime spatial data infrastructures and the benefits of making hydrographic data accessible to the widest possible audience for uses that go well beyond the safety of navigation. A brief on WHD-2017 is also available on the IHO website.

14. IHO Secretariat has also proposed a theme for WHD 2018 which focuses on hydrography in relation to the UN 2030 Agenda: "Bathymetry – the foundation for sustainable seas, oceans and waterways" (CL 62/2017 dated 13 November refers). The proposed theme provides the opportunity to raise awareness that a better understanding of the depth and shape of the seafloor is key to a broader understanding of natural processes and the success of all human activities in, on or under the sea - including safety of navigation, protection of the marine environment, development of the blue economy and the sustainable use and governance of the marine domain. The theme also reflects the aims of IHO Resolution 1/2017 - Improving the Availability of Bathymetric Data Worldwide that was adopted by the first session of the Assembly of the IHO.

15. International Hydrographic Review (IHR). The IHR provides an ideal opportunity for Regional Hydrographic Commissions and Member States to publicise technical and other achievements in the region. An editorial board

comprising a representative from each region has been established. The representative for the MACHC region is Mr Chris THORNE (UK). Papers for consideration for publication in the IHR should be forwarded directly to the editor (ihreview@iho.int, copy to ian.halls1@defence.au.gov). The deadlines are:

- End of January for the May Edition;
- End of July for the November Edition.

Capacity Building Programme

16. The level of activity of the IHO Capacity Building (CB) Programme in 2016 was nearly the same as in 2015. Expenditure in the 2016 CB Work Programme (763,605 Euros) was slightly more than the budget for the previous year. Three activities were postponed to 2017 at the request of the RHC Chairs, which resulted in 93% of the budgeted work program being executed. Some of the activities that could not take place were postponed and transferred to the 2017 CB Work Programme for execution. The IHO Capacity Building programme is funded from the IHO budget and is supplemented by additional financial support from Member States (currently the Nippon Foundation of Japan, and the Republic of Korea) with in-kind support from Member States and from industry. However, considering the growing demands for IHO Capacity Building activities, more funds and contributions are required. The IHO Secretariat is continuing its campaign to find additional donor States and funding organizations.

17. The MACHC benefited from three activities under the IHO CB Work Programme (CBWP) since the last meeting:

- Haiti follow up visit, led by USA with Brazil and France, 19-22 June 2017
- MSI Course, led by the UKHO, Barbados, 26-30 June 2017
- Seminar on Raising Awareness of Hydrography, led by UKHO, Varadero, Cuba, 27-28 November 2017
- Mr Daniel Alberto ROJAS CONTRERAS from Venezuela is attending the 2017 edition of the UKHO Category "B" programme (IHO - Nippon Foundation CHART Project) which is being conducted from 4 September to 15 December 2017.

18. Technical implementation visits to El Salvador will be held in December 2017 and to Dominican Republic in January 2018.

19. The following activities that will benefit the MACHC are included in the 2018 CBWP, further details to be decided during the MACHC18:

- Technical visit to Guatemala
- Multi-Beam Echo Sounding Processing
- Tides and Water Levels Workshop for Spanish Speakers
- Seminar on Raising Awareness of Hydrography

Crowd-Sourced Bathymetry

20. In accordance with Decision 8 of the EIHC-5, IRCC7 established a Crowd-Sourced Bathymetry Working Group (CSBWG) to provide guidelines on the collection and use of crowd-sourced bathymetry. The WG is intensively working on a CSB Guidance document with a target completion date for the final draft in the first quarter of 2018 (CL 49/2017 refers).

21. The web-based interface portal to the IHO Data Centre 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 crowd-sourced bathymetry concept. This will enable an IHO-led CSB infrastructure to be established and promoted in the IMO and across the wider maritime community.

Action Requested of MACHC Member States

22. The MACHC is requested to:

1. Note this report
2. Provide continuous updates to S-11 Part B, through Brazil as coordinator for INT Region B

3. Review entries in IHO Publications C-55 and P-5 (Year Book) at least annually.
4. Provide continuous updates to S-11 Part B for INT Region B through the INToGIS tool and implement the procedure depicted in IHO CL 64/2015 for the review and monitoring of INT charts
5. Report to the IHO Secretariat on the status and description of the ENC schemes in Region B
6. Consider submitting papers for publication in the International Hydrographic Review.
7. Take any other actions as considered appropriate.