

**Paper for Consideration by ARHC**  
**IHO Secretariat Report**

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| <b>Submitted by:</b>      | Secretariat of the IHO   |
| <b>Executive Summary:</b> | This paper reports on the activities of the IHO Secretariat that may impact the work of the ARHC |

1. Noting that the 1<sup>st</sup> Session of the IHO Assembly and the 9<sup>th</sup> meeting of the IRCC took place quite recently and Members of the ARHC will therefore be familiar with most of the recent activities of the Organization and the Secretariat, this is a simplified report which focuses on principal topics that may be of direct interest to the ARHC.

**Some consequences of the entry into force of the Amendments to the IHO Convention and its supporting Basic Documents**

2. From now on, the subsidiary organs of the IHO, including the Committees, report to the Council that may then refer endorsed proposals for adoption either to the Assembly or to the Member States through correspondence.

3. Where voting is required, 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 was required. A minimum number of at least one-third of all Member States eligible to vote must vote positively for a vote to stand.

**Decisions from the 1st Session of the IHO Assembly that may impact the work of ARHC**

4. Out of 24 Decisions in total, the following may have an impact on the ARHC:

- Decision 5.b “*tasked the Secretary-General to draft a revised IHO Resolution 5/1957 as amended (IHO Relations With Other Organizations) and to submit it to the first session of the Council*”.

A proposed revised Resolution has been submitted by the Secretary-General for endorsement by the Council as Doc. C1-2.2 Annex A. The ARHC Members may wish to consider this proposed amended Resolution and reflect upon the decision made at the 10<sup>th</sup> Ministerial Meeting of the Arctic Council in Fairbanks on 11<sup>th</sup> May 2017 where the IHO application for Observer status to the Arctic Council was not accepted and decide what action might be taken by the ARHC Members in the future to avoid another refusal.

- Decision 10 “*urged Member States to ensure consistency between their paper and digital charts and publications through the provision of the appropriate updates*”.

It has been observed in some Regional Hydrographic Commissions where there are areas covered both by paper charts and ENC's that are not produced by the same Member State, then inconsistencies may appear. It is recommended that the Region N ICCWG takes note of this and reports any observed inconsistencies to next Conference of the ARHC.

- Decision 18 “*tasked the IRCC to encourage the Regional Hydrographic Commissions to consider using satellite derived bathymetry and risk assessment methodologies in uncharted or poorly charted areas in their respective regions as a way of developing survey priority areas as part of attracting donor funding*”.

The ARHC may wish to consider how it might embrace satellite derived bathymetry and risk assessment methodologies in its work.

- Decision 22 b/ “*encouraged Member States to incorporate the Statement of Shared Guiding Principles for Geospatial Information Management into institutional frameworks and to liaise with their national representatives in the UN Committee of Experts on Global Geospatial Information Management (UN-GGIM) to help ensure that ocean and coastal geospatial data is considered as an integral part of national Spatial Data Infrastructure (SDI) initiatives*” and Decision 22 d/ “*encouraged Member States and RHCs to engage with the UN-GGIM and its regional entities to raise awareness of the marine domain, any of its unique needs, and the value of the domain within any geospatial information management effort*”.

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

5. As requested by the MS of the ARHC, a cautionary notice regarding the status of charting in the region was posted on the ARHC page of the IHO website and sent to various ARHC stakeholder organizations, by the IHO Secretariat. Acknowledgements were received from most of the stakeholder organizations contacted by the IHO Secretariat. The notice can be found at: [www.iho.int](http://www.iho.int) > IRCC > RHCs > ARHC > Miscellaneous > [Notice](#).

6. Mr Edward Hands (Norway) has taken the role of INT Chart/ENC Coordinator for Region N. The current web-based version of S-11 Part B for Region N is edition 3.0.0 dated January 2016. This new edition indicates that eight INT charts are available to date, out of 12 charts in the scheme. It is expected that a new updated edition of the chart scheme for Region N will be released, in liaison with the Region N Chart Coordinator, after ARHC-7.

7. Region N participated in the 7<sup>th</sup> meeting of the WENDWG in January-Feb 2017, represented by Canada. The WENDWG invited:

- Regional Hydrographic Commissions to define and adopt ENC Schemes (as is done for INT Charts Schemes and in accordance with the new Ed. 3.0.0 of S-11 Part A) and to provide basic metadata to the IHO Secretariat,
- the IHO Secretariat to consider including a layer of “Approved” ENC Schemes in the IHO ENC Catalogue or as an extension of the INT Web Chart Catalogue, and
- eight overlaps (> 5 m) were reported for usage bands 3 and 4, that could be easily fixed as they are from the same ENC Producer nation (RU).

8. IHO CL 61/2015 dated 24 August 2015 informed Member States of the promulgation of International Maritime Organization (IMO) Circular MSC.1/Circ.1503 of 24 July 2015 on *ECDIS - Guidance for Good Practice*. Noting that the Circular refers to the IHO online ENC Catalogue and that the mention includes a reference to the provision of coastal State information on any requirements for ECDIS backup arrangements using paper charts, the IHO Secretariat reiterated its earlier request (see IHO CL 41/2014) that Member States ensure that the relevant information which has been posted on the IHO website since 2008 (see IHO CL 10/2008) is kept current and to provide the IHB with updates as appropriate. Member States were invited to consider the provision of pending updates before the end of 2015 and the provision of subsequent updates, or confirmation of no change, at least once a year. Where relevant information has been provided by Member States, it is located at: *Home > ENCs & ECDIS > ENC Availability > Backup Paper Charts*, and *-Home > ENCs & ECDIS > ENC Availability > Online Chart Catalogues*. The latest information received from ARHC Member States is as follows:

| <b>Country</b>           | <b>Date of requirements for ECDIS back-up arrangements using paper charts</b> | <b>Link to on-line chart catalogue</b> |
|--------------------------|---|--|
| Canada                   | No information provided to IHO Sec  | Yes                                    |
| Denmark                  | Feb 2017  | Yes                                    |
| Norway                   | June 2016   | Yes                                    |
| Russian Federation       | 2007  | No                                     |
| United States of America | 2007  | Yes                                    |
| Finland                  | April 2007  | No                                     |
| Iceland                  | May 2016  | Yes                                    |

### **IHO GIS and Databases (including C-55)**

9. 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.

10. The country information database has been progressively upgraded to include additional administrative information and facilitate the maintenance of the Yearbook (IHO Publication P-5) and related lists posted on the IHO website. Countries in the ARHC 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.

11. The IHO GIS will underpin the regional information database. It 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 already been transferred to this new environment.

12. 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. Portrayal options in the IHB C-55 GIS are being investigated.

13. The latest updated information from ARHC Member States in C-55 is as follows:

| <b>Country</b>              | <b>C-55 Last update received</b> | <b>Comment</b> |
|-----------------------------|----------------------------------|----------------|
| Canada - Arctic             | September 2013                   |                |
| Denmark – Faeroe Is.        | April 2015                       |                |
| Denmark – Greenland         | October 2013                     |                |
| Norway Area N               | October 2013                     |                |
| Russian Federation – Area N | July 2004                        |                |

| Country  | C-55<br>Last update<br>received | Comment |
|--|---------------------------------|---------|
| United States of America – Alaska and Arctic<br>(incl. Aleutian Is.) | April 2012                      |         |

14. Countries in the ARHC Region are invited to review their entry on an annual basis and provide the IHB with the appropriate updates or report no change.

### Preparation of the 1st meeting of the IHO Council

15. The first meeting of the IHO Council is scheduled to take place from 17 to 19 October 2017. All documentation to be considered at the meeting is now posted on the IHO website. While the Russian Federation has been selected by the ARHC to occupy the seat allocated to the ARHC, it is worth noting that the other ARHC Members and Associate Members (Canada, Denmark, Finland, Norway, USA) also occupy a seat on the Council.

16. Before the Council meeting, all Member States of the ARHC having a seat at the Council may wish to share their views on any of the agenda items to be discussed.

### IHO Outreach

#### World Hydrography Day (WHD)

17. The theme for World Hydrography Day 2017 is:

*“Mapping our sea, oceans and waterways - more important than ever.”*

18. The Secretariat is taking every opportunity to raise awareness of the value and importance of knowing the depth and nature of the seafloor in all relevant intergovernmental and international forums; including,

- Committee of Experts on Global Geospatial Information Management (UN-GGIM)
- UN 2030 Agenda for sustainable Development -
  - UN High Level Conference on to Support Sustainable Development Goal 14
- International Seabed Authority
- Group on Earth Observations (GEO)
- World Ocean Council

19. Taking into account the world’s increasing focus on the United Nations (UN) 2030 Agenda for Sustainable Development, and most recently, the outcomes of the UN Ocean Conference in support of Sustainable Development Goal (SDG) 14 concerning the ocean, and the intention of the Intergovernmental Oceanographic Commission of UNESCO (IOC) to commit to an International Decade of Ocean Science for Sustainable Development, under which the IHO and other intergovernmental organizations such as the World Meteorological Organization will participate, the Secretary-General, in consultation with the IHO Directors, proposes a theme for WHD 2018 which focus on hydrography in relation to the UN 2030 Agenda:

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

This proposal will be considered by the Council when it meets in October.

20. The proposed theme for 2018, if approved, provides the opportunity to raise awareness that a better understanding of the depth and shape of the seafloor is key to 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. In particular, many of the SDG14 targets may be compromised through insufficient depth data being available.

21. The theme 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.

22. The theme may also be used to support the promotion and encouragement of innovative supplementary data gathering and data maximizing initiatives such as crowd-sourced bathymetry (volunteered geographic data) and satellite-derived bathymetry as well as promoting the related activities of the IHO-IOC GEBCO Programme (including the Nippon Foundation - *GEBCO Seabed 2030 Project*) and national hydrographic surveying programmes.

23. The theme will help to promote the role of hydrographic data in national and regional 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. It will also acknowledge the increasing interest being shown by the UN-Committee of Experts on Global Geospatial Information Management (UN-GGIM) in marine geospatial data, as shown by its consideration of establishing a dedicated UN-GGIM working group on marine geospatial information.

#### **Action Requested of ARHC Member States**

24. The ARHC is invited to:

- a. **Note** this report;
- b. **Review** entries related to IHO C-55, P-5 (Yearbook) and ECDIS back up arrangements at least annually;
- c. **Provide** updates to S-11 Part B for INT Region N through the INTtoGIS tool;
- d. **Report** to the IHO Secretariat on the status and description of the ENC schemes in Region N;
- e. **Consider** any actions with regard to:
  - establishing a recognized and interoperable GIS-based repository that will enable existing data coverage to be identified, and
  - conducting risk assessment analysis using AIS data against existing ENC and INT chart coverage;
- f. **Discuss** any topics relevant to the ARHC that are to be considered by the 1<sup>st</sup> meeting of the IHO Council to be held in October 2017;
- g. **Advise the IHO Secretariat** on the way-ahead if an application for the IHO to obtain Observer Status at the Arctic Council is to continue to be pursued; and
- h. **Take any other actions** as considered appropriate.