

IHB Report

Status of Approval of Amendments to the IHO Convention

1. Amendments to the Convention on the IHO were approved by the 3rd Extraordinary International Hydrographic Conference in May 2005. As of September 2015, ~~42~~ 43 of the required 48 approvals of the Protocol of Amendments to the IHO Convention had been reported by the Government of Monaco. The IHB has been informed of one additional approval (Argentina) which will be announced by the Government of Monaco shortly. ~~Five~~ Four more approvals are therefore required before the amendments can enter into force.
2. Indonesia, Malaysia, Myanmar, Philippines, Singapore and Thailand are the IHO Member States in the EAHC that have not yet indicated their approval of the Protocol of Amendments to the Convention on the IHO.
3. The principal effects of the amendments to the IHO Convention are:
 - Removal of the requirement for States applying for membership of the IHO to await the approval of two thirds of the existing Member States. This will remove an average wait of two to three years before the required majority is achieved.
 - Changing the 5-year programme cycle of the Organisation to three years between Conferences (to be known as Assemblies).
 - The establishment of a Council. The Council will meet annually.
 - Changing the elected position of President of the Directing Committee to that of Secretary-General with the elected Directors being subordinate to the Secretary-General.

The amendments will result in an organisational structure similar to most other inter-governmental organisations.

Status of Membership of the IHO

4. Following the accession of Georgia, Viet Nam and Brunei Darussalam in March 2015, IHO membership stands at 85. With Serbia, the Democratic Republic of Congo and the Dominican Republic remaining suspended, the current thresholds for IHO decisions are 42 when a simple majority is required and 55 when a two-thirds majority is needed.
5. The Government of Monaco has notified IHO Member States of the application by four coastal States to join the IHO:
 - The Republic of the Congo
 - Malta
 - The Solomon Islands
 - Vanuatu

IHO Member States' representatives in the EAHC are asked to expedite the approval process wherever possible.
6. The following States in the EAHC region have yet to apply to become members of the IHO:
 - Cambodia
 - Timor Leste

Both are Member States of the IMO.

IHO GIS and Databases

7. 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.

8. 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.

9. 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 various sophisticated cloud-based on-line GIS options. The IHO ENC Catalogue has been migrated to this new environment and the transfer of the GIS data coverage for Antarctica will follow next.

10. 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 more generally. In addition to the current composite indicators (percentage of areas adequately surveyed / requiring re-survey / not surveyed), the inclusion of CATZOC polygons will provide an initial geo-referenced quality layer as discussed at IRCC-4. In that perspective, the RENCs have been asked to seek the consent of their contributing members to provide CATZOC information to the IHB for inclusion in C-55 (see also IHO CL52/2015).

11. The need to improve the current maintenance process for S-11 Part B has been raised on many occasions in several Regional Hydrographic Commissions. Following the development of the regional database for Antarctica, the IHB, with support provided by the Republic of Korea, has initiated an "INToGIS" project that will the maintenance of the INT chart schema set out in S-11 part B - *Catalogue of INT charts* into an interactive GIS/S-100 compliant environment. The objective of the project is to provide the regional International Charting Coordination WGs (ICCWGs) with relevant on-line updated information and the necessary tools to review and maintain INT chart schemes and monitor the implementation of the INT chart schemes. Extending the capability to include ENC schemes/coverage/production is also envisaged in due course. The "INToGIS" project is now in the development phase with several Regional International Charting Coordinators (BSHC, MBSHC, USCHC, and HCA) testing and providing feedback. The target date for transferring to the on-line system is early in 2016, at which time, updates to the INT chart schema will be submitted to the IHB using the INToGIS webservices.

INT Chart and ENC Production Coordination - Region H

12. Japan, as INT coordinator for Region K, is invited to provide regular updates to the IHB for the maintenance of INT chart schema promulgated in S-11 Part B - Region K. Member States are encouraged to provide updates to S-11, through Japan as coordinator for INT Region K. The point of contact is: Mr. Kenichi Noguchi.

13. The status of the INT chart scheme for region K is contained in Edition 2.0.7 of S-11 Part B which was published in October 2013. There are 304 charts in the scheme, of which 240 have been published (79%).

14. In this reporting period the IHB identified that two new charts (INT 5171 and INT 5301) and 34 new editions were published.

15. IRCC7 (Decision IRCC7/3 and Actions IRCC7/27&28) agreed on a revised procedure for the review of new INT charts. In future, only charts from new INT producers will be reviewed. The principle purpose being to ensure that any new Producer Nation is following the relevant IHO standards and guidelines regarding INT charts. Information on the new experimental process for INT chart review. CL 64/2015 has been issued announcing the revised procedure.

16. CL 64/2015 also provides information on a workshop being organised in conjunction with NCWG2. The workshop will provide International Charting Coordinators with the latest information on the practical implementation of the INT chart scheme and will introduce the INToGIS tools, best practices, and lessons learned.

17. Links have been provided to Member States' on-line chart catalogues from the IHO ENC coverage catalogue (www.iho.int > ENC&ECDIS > ENC Availability > on-line catalogue).

5th Extraordinary International Hydrographic Conference (EIHC-5)

18. The EIHC-5 took place from 6 to 10 October in Monaco. 65 of the 82 Member States were represented, together with two pending Member States and 21 representatives from non-Member States. All IHO Member States of the EAHC were represented.

19. In addition to the Industry Exhibition, an IHO Capacity Building exhibition and poster celebration of ten years of Nippon Foundation IHO-IOC GEBCO scholars was arranged. A number of past scholars and alumni provided poster displays of their work since graduation throughout the period of the Conference.

20. The Conference acknowledged the need to consider novel ways to supplement hydrographic data gathering, especially in remote and unsurveyed areas. Methods include using satellite derived bathymetry and crowd-sourcing techniques. The Conference was told that the development of national and regional spatial data infrastructures is growing and that national hydrographic services should urgently consider the potential impact on their roles and responsibilities as the world moves from a map and chart-based paradigm to one that places the management and provision of national reference geodata services ahead of map and chart production.

21. The Proceedings for the Conference were posted on the IHO website (see IHO CL 27/2015).

Capacity Building Programme

22. The IHO capacity building programme reached a new level of achievement in 2014 with double the funds available for 2014 compared to 2013. 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. 11 technical visits and 31 different training activities were planned last year with a rate of execution of over 80%. The remainder of the planned activities were unavoidably cancelled or postponed due to difficulties arising in host countries and no suitable alternative arrangements being possible in time.

23. The EAHC benefited from two activities under the IHO CB Work Programme in 2015:

- MSI course (3 days) for EAHC Members, led by JHOD in Tokyo, Japan, on 03-05 March 2015
- Seabed Classification and Multibeam Survey, led by DISHIDROS in Jakarta, Indonesia, on 05-09 October 2015

24. The following activities are scheduled for 2015:

- Technical Visit to Cambodia led by the EAHC Chair (dates TBD)
- Tsunami Inundation Mapping Workshop, led by JHOD in Tokyo, Japan, on 25-27 November 2015
- MSDI and Database Management, led by MSA, in China (exact venue TBD), on 30 November-04 December 2015

and for 2016:

- Trainer for Trainer - Basic Hydrography
- Technical Visit to Timor Leste (pending funding)
- Satellite Derived Bathymetry (pending funding)
- Cartographic Production Database System Workshop (pending funding)
- Multi-beam Survey and Seabed Classification (pending funding)

One applicant from Myanmar and one from Indonesia were selected for the 2015 course of the IHO – Nippon Foundation CHART project and one applicant from Viet Nam was selected for the 2015 phase of the marine geospatial information programme sponsored by the Republic of Korea.

25. It is expected that a call for applications will be issued in October 2015 for the 2016-2017 session of the

Master of Science Programme in Hydrographic Surveying at the University of Southern Mississippi sponsored by the Republic of Korea. Hydrographic Offices are invited to invest in the preparation of candidates especially with respect to English proficiency. IHO CL 65/2014 provides guidance that will be similar to the call in 2015.

Crowd Sourced Bathymetry Programme

26. In accordance with Decision 8 of the EIHC-5, the IRCC has established the Crowd-Sourced Bathymetry Working Group (CSBWG) to provide guidelines on the collection and use of crowd-sourced bathymetry. Member States are invited to nominate representatives to participate in the CSBWG (see IHO CL 42/2015). The CSBWG is already working by correspondence. It will hold its first meeting as a side event to meeting of the GEBCO Guiding Committee in Kuala Lumpur during the week 5 to 9 October

27. Separately, the web-based interface portal to the IHO Data Centre for Digital Bathymetry, hosted by the USA in Boulder, Colorado, as part of its support of the system of World Data Centres, is being upgraded to be compatible with the crowd-sourced bathymetry concept and also to provide a data discovery portal for worldwide bathymetry and to store data as appropriate and agreed with the data owners.

IHO Outreach

World Hydrography Day 2015

28. The theme for World hydrography Day 2015 concentrates on the fact that much of the world's seas, oceans and navigable waters remain unsurveyed. The tag-line for WHD-2015 is: *"Our seas and waterways - yet to be fully charted and explored"*. The theme is intended to raise public awareness that, for example, there are higher resolution maps of the Moon, Mars and Venus than for many parts of our seas and coastal waters. The theme provides the opportunity to promote and encourage innovative supplementary data gathering initiatives to address the current shortfall in useful bathymetric data, including crowd-sourcing and satellite derived bathymetry that were discussed at EIHC-5.

29. The celebration of WHD-2015 in Monaco on 30 June was honoured by the presence of HSH Prince Albert II of Monaco. It was enhanced both by a visit by the Japan Coast Guard Training Ship "Kojima" facilitated by the Japan Hydrographic Oceanographic Department (JHOD) and by hosting the 1st meeting of the Nautical Information Provision Working Group (NIPWG) at the IHB during the week.

30. The IHB has provided supporting material for WHD-2015 on the IHO website (see IHO CL 28/2015). Member States are invited to forward as soon as possible to the IHB any material created in support of WHD-2015 celebrations for posting on the IHO website. This will enable the widest possible dissemination of publicity and support material.

World Hydrography Day 2016

31. IHO CL 66/2015 proposes the WHD theme for 2016: *Hydrography - the key to well-managed seas*. This theme is intended to take advantage of the recently agreed UN Strategic Development Goals (SDG)- especially SDG 14 - on the use of the ocean and also the continuing UN priority on disaster risk reduction.

UN Post 2015 Development Agenda

32. The UN Assembly has most recently adopted its post 2015 Development Agenda. This is underpinned by 17 Strategic Development Goals.. SDG 14 is particularly relevant to the IHO Member States: SDG14 - *Conserve and sustainably use the oceans, seas and marine resources for sustainable development*.

IHO Stakeholder Forum

33. The draft agenda of HSSC-7 includes a half-day session for Stakeholders' input and discussion on the afternoon of Thursday, 12 November 2015 (see IHO CL 37/2015). The programme of the session will be based on presentations proposed by IHO Stakeholders. IHO Stakeholders attending the Forum will be welcomed to participate

as observers throughout the HSSC meeting.

34. Logistics information and a form for submitting abstracts for consideration are available on the IHO web site at www.iho.int > External Liaisons > External Stakeholders > Section on IHO Stakeholder Meetings > Next Meeting.

International Hydrographic Review

35. International Hydrographic Review (IHR). The IHR provides an 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 nominated representative for the EAHC is **Dr. Hideo Nishida (Japan)**. 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 mandate of the current editor, Mr Ian Halls (Australia), was renewed until the end of 2016 (CL 84/2014 dated 23 December refers).

Action Requested

1. **EAHC12** to **note** this report;
2. **Indonesia, Malaysia, Myanmar, Philippines, Singapore and Thailand** to **progress** ratification of the Protocol of Amendments to the IHO Convention and report any difficulties being encountered or assistance required.
3. **IHO Member States** to **expedite** wherever possible, the approval process for the applications of The Republic of the Congo, Malta, The Solomon Islands and Vanuatu to join the IHO.
4. **All States** to **review** entries in IHO Publications C-55 and P-5 (Year Book).
5. **All States** to **consider** submitting papers for publication in the IH Review.
6. **EAHC Members States** to **take any other actions** as considered appropriate.