

**12th MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE
IHO-IRCC12
VTC, 6-7 October 2020**

Report of the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC)

Submitted by:	Chair, Ron Furness
Related Documents:	<ul style="list-style-type: none"> - IHO 3 Year Work Programme - 3YEARWP2018-2020_ENG. - Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (S-5A, S-5B, S-8A & S-8B). - Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers. - Frequently Asked Questions document. - IHR-Nov-2017-Article Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers.
Related Projects:	N/A

Chair:	Mr Ron Furness, Australia (ICA)
Vice-Chair:	Capt. Nickolás Roscher, Brasil (IHO)
Vice-Chair:	Mr Sobri Syawie, Indonesia (FIG)
Secretary:	Mr Leonel Manteigas, IHO Secretariat
Member States:	<p>IHO: Capt. Andrew Armstrong (USA), Commodore Rod Nairn (Australia), Dr. Arata Sengoku (Japan);</p> <p>FIG: Mr. Gordon Johnston (UK), Mr. Adam Greenland (New Zealand), Prof. Dr. Harald Sternberg (Germany);</p> <p>ICA: Prof. Lysandros Tsoulos (Greece).</p>
Expert Contributors:	N/A
<i>see Annex A for full details</i>	

1. Meetings Held During Reporting Period

IBSC Intersessional Workshop was hosted by MPA, Singapore (28 Oct-1 Nov 2019).

IBSC43 meeting was hosted by the Maritime Authority of Colombia in Cartagena de Indias (9-20 Mar 2020).

IBSC44 meeting will be hosted by the Spanish Hydrographic Office in Cadiz (Mar/Apr 2021).

2. Work Program

In addition to the annual meeting the IBSC worked on the following tasks:

- Publication of the companion document Frequently Asked Questions to contribute to the Right First Time principle, i.e. assisting institutions improve the quality of submissions; (IBSC Work Plan Q2 2019 to Q2 2020, approved IRCC11, Decision 26) and,
- Review the IBSC standards and maintain IBSC Publications (Task 3.8.4, IHO 3 year Work Programme 2018-2020),

- Review of the IBSC42 Conditional Recognition submissions (IBSC Work Plan Q2 2019 to Q2 2020, approved IRCC11, Decision 26),
- Realisation of on-site visits to provide guidance and assistance to institutions to China and Belgium (IBSC Work Plan Q2 2019 to Q2 2020, approved IRCC11, Decision 26),

Following the IBSC Work Plan Q2 2019 to Q2 2020, approved at IRCC11 the following companion to the standards documents were published in 2020, as announced in the IHO CL 29/2020:

- Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (Ed 2.1.1, March 2020);
- Frequently Asked Questions (FAQ) (Edition 1.0.0, March 2020).

Fifteen (15) submissions were reviewed at the IBSC43 meeting against the standards. The table below provides a summary of submissions reviewed.

Status	N.	Standards of Competence
Recognized	1	1 x Hydro S-5B
Recognized with Conditions	5	2 x Hydro S-5A 3 x Hydro S-5B
Not recognized	9	4 x Hydro S-5A 3 x Hydro S-5B 2 x Carto S-8B
Total	15	

Full details of all 15 programmes are listed in Annex A. Note that only one new programme was submitted for recognition at IBSC43.

At the Singapore workshop and in the IBSC43, the Board reviewed the companion document Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (Guidelines), prepared the Frequently Asked Questions FAQ's document to support submitting institutions and considered requests for extensions (listed in Annex A) and other matters related to recognized programmes and schemes. This included, reviewing the annual reports received from institutions holding recognized programmes.

3. Progress on IRCC Action Items

N/A.

4. Problems Encountered

The main problem encountered remains the quality of submissions. The Board and recent submitting organizations have found that a programme submission is a major undertaking, particularly in light of the recent implementation of new S-5A, S-5B, S-8A, and S-8B Standards framework.

This is clear with the number of programmes that are recognized in the first submission which, in the most recent IBSC43 meeting, was none, since the only submission to the Board that was recognized in the table of point 2. had already been submitted to the previous IBSC42 meeting.

This difficulty in submitting programmes that comply with the standards implies an increased work for the institutions, but also for the Board that, for each program, has to carry out, normally, more than one review. IBSC expects that with the new Frequently Asked Questions document this situation will improve. This significant increase in work due to the increase in the number of intermediate reviews and the growing number of submissions means that, under normal conditions, a second annual meeting is justified by itself and essential to wrap up one IBSC meeting and prepare for the next.

5. Any Other Items of Note

Dr. Keith Miller from Trinidad and Tobago (FIG), resigned from the Board in March 2020.

Capt. Leonel Pereira Manteigas from Portugal (IHO), has been appointed as new Assistant Director of the IHO and in consequence Secretary of the IBSC. He resigned as a member in July 2020, replacing Capt. Alberto Costa Neves as Secretary of the IBSC.

To replace the members that had left the Board were appointed, to be effective from 15 August 2020, as announced in CL28/2020:

- Prof Dr Harald STERNBERG, Germany (FIG);
- Dr Arata SENGOKU, Japan (IHO).

As per the IBSC Rules of Procedure, Mr Ron Furness, Australia (ICA), become the new Chair on 30 September 2019.

The IBSC would like to acknowledge the high level of support provided to this Board, as Secretary, during the last nine years by Capt. Alberto Costa Neves from the IHO Secretariat.

The IBSC would also like to acknowledge the significant contribution made during his tenure by Dr. Miller.

The IBSC needs to develop a succession plan as some members approach retirement from service on the IBSC as members.

5.1 impact of the COVID-19 pandemic

The impact of COVID-19 on the work of the IBSC and the teaching delivery strategies of the recognized programmes on the conduct of IBSC43 and the subsequent work emanating from the meeting was immediate and disruptive from early 2020.

A typical year for the IBSC involves the following:

- Jan/Feb/March – receive submissions and perform preliminary reviews.
- March/April – conduct IBSC annual meeting of two weeks, bringing together IBSC Members, staff from submitting institutions, local support staff and local hydrographic surveyors and nautical cartographers in a workshopping discussion about the IBSC's work and programme. This potentially involves gatherings and interactions of around 50 or so people from many countries.
- Remainder of year taken to finalise all reviews intersessionally.
- November – conduct IBSC workshop to finalise IBSC work for the IBSC meeting and prepare for the next.

IBSC 43 was scheduled and held in Cartagena de Indias, Colombia from 9 – 20 March 2020. It became apparent late in February 2020 that it was going to be impossible for the IBSC to receive personal representatives from the submitting institutions as well as some being unable to travel under the direction of their institutions.

The IBSC43 Meeting was held in Colombia and for safety reasons and travel difficulties was conducted with the participation of two members by VTC. All presentations were conducted by VTC with mixed effectiveness. The IBSC attempted to minimize the impact of these measures with additional time allowed for clarifications, but the presence of the delegations is always an added value and this aspect was unfortunately missed.

During IBSC43, various national borders, including Colombia's border, started to close suddenly and with short notice, and some IBSC Members had to take urgent and immediate evacuation action. This had an immediate impact on the IBSC43 programme, and two postponed reviews had to be conducted subsequently by VTC when all IBSC Members were safely home and over their quarantine commitments. The intersessional reviews continue at the time of the IRCC meeting.

It should be acknowledged and recorded that the support from the staff of Colombia's Servicio Hidrográfico Nacional was thorough and impeccable throughout considering the stresses brought about by COVID-19. It was greatly appreciated by IBSC members.

Understanding that COVID-19 will have an impact in the running of programmes, the IBSC issued the following message in the IHO web page to be available in helping the institutions to adapt to the situation, but at the same time maintain as much as possible the required level of the learning outcomes.

The IBSC (The Board) acknowledges that these are challenging times due to the COVID-19 pandemic and encourages all institutions to prioritize the well-being of staff and students as they manage their particular circumstances to deal with disruptions to their normal teaching strategies for their recognized programme(s). The Board recognizes that teaching delivery strategies will likely need to be changed as institutions implement essential changes to comply with official directions from authorities. The Board requests that any modified teaching strategies seek to maintain the appropriate level of the applicable Standard and asks that significant changes be referred to the Board for its consideration of the need for guidance or assistance with continuing recognition. This acknowledgement should not be construed as the Board seeking to override national or local official directions.

The Board received letters from several institutions regarding their necessary modified teaching strategy to deal with the impact of the COVID-19. In summary, it is possible to mention that the institutions adapted very quickly and well, developing and implementing remote learning strategies for the theoretical classes and delayed the delivering of the practical classes for the end of the respective lockdowns with the necessary safety measures implemented.

The ongoing impacts from COVID-19 on the future programme of the IBSC are foreshadowed potentially to be:

- November 2020, IBSC internal workshop, as required, to be conducted by VTC.
- Potential impact on the conduct of IBSC44, presently proposed to be conducted in March/April 2021 in Cadiz, Spain. Travel restrictions may still impact both IBSC Members as well as submitting institutions and the advisability of conducting the normal presentations and gatherings may remain negative.
- In the event IBSC44 is severely impacted, the conduct of a virtual meeting would have serious consequences for the conduct of the Board's programme for the renewal of recognitions and the consideration of new programmes for recognition.

In summary, decisions by the IBSC on the conduct of its 2021 programme will need to be in place by the end of 2020 noting that submissions for consideration at IBSC44 will be received typically by 31 December 2020 or shortly after. The potential conduct of a virtual IBSC44 would have a seriously disruptive effect on the ongoing programme recognition process.

Some IBSC Members can be classified as being particularly vulnerable to COVID-19 infection and impact due to their age group and/or location and have expressed to the Chair informally their concern over their ability to travel safely during 2021. The ability of a host nation to accept the hosting of an IBSC meeting remains problematic.

6. Conclusions and Recommended Actions

The difficulties in adapt the submissions and the programmes to the new standards as been clear in the last years and is proven by the low quantity of submissions recognized in the first review.

To provide additional support, the IBSC improved the Guidelines, clarifying some points and giving better examples. The Board also issued the new Frequently Asked Questions document expecting that with these two documents the situation will improve and that the Right First Time principle became each time more a reality.

The large number of submissions and the fact that most of them have a significant number of shortcomings implies an important increase in work of the Board due to the increase number of reviews and then the number of necessary intermediate reviews, which means that, under normal conditions, a second annual meeting is justified only by the need to finalize the reviews.

The COVID-19 Pandemic affected the teaching delivery strategies of the recognized programmes, most of them adapted quickly and well their education delivery process. The Board requested the institutions to maintain the required level and for them to communicate any significant change, having received several communications.

Also, this pandemic affected the work of the Board with the need to have the IBSC43 meeting without presential members of the Delegations and also with two members participating by VTC. Some members had to depart Colombia urgently and suddenly and consequently the schedule was disrupted.

The IBSC will continue to assist institutions to improve the quality of the submissions in order that most of them be able to prepare programmes that could be recognized at the first review, i.e. the Right First Time principle.

7. Justification and Impacts

The goal behind the Right First Time principle is to make available to the institutions more information and better examples that allow them to prepare programme submissions with less issues in the first submission to the IBSC for its review. This will prevent the unnecessary waste of time and resources associated with detecting and correcting issues by the IBSC and submitting institutions. Non-value-add activities, such as second and third reviews, are eliminated as errors are reduced and fewer are returned for multiple review cycles. This has become more critical as the workload of the IBSC has increased with more new programmes and schemes being submitted within the 6 year recognition period. The IBSC aims to reduce the number of submissions that are either Recognized with Conditions or Not Recognized. Ultimately, the outcome the IBSC is seeking to achieve that all programmes are Recognized at the first review stage with only the most minor comments or corrections needed.

To achieve this objective, the Guidelines are being reviewed in each meeting to provide better examples and have clear requirements. Also, the Frequently Asked Questions document is expected to provide an important support to the institutions in the submission's preparation. The Board is always available to engage with the institutions to clarify any questions through correspondence and with essential on-site visits and also seeks opportunities for stakeholder engagement at conferences, meetings and workshops (see Tasks in Annex B).

8. Action Required of IRCC

The IRCC is invited to:

- a) Note this report.
- b) Acknowledge the work done by the Board in the delivery of the companion document Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers Ed. 2.1.1 (May 2020) and the new document Frequently Asked Questions, Ed. 1.0.0 (March 2020).
- c) Encourage Member States and submitting institutions to engage with the IHO Secretariat early in the process of them preparing submissions for programme recognition.
- d) Encourage Member States and submitting institutions to consult the Guidelines, the FAQs and the White Paper (IHR-Nov-2017 – Article: Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers) early in the process of preparing submissions for programme recognition.
- e) Agree with the IBSC Proposed Work Plan – Q2 2020 to Q2 2021 (Annex B).
- g) Take any other actions as appropriate.

IRCC12-06B
ANNEX A

*offered an intersessional review and/or one-year extension

No	Standard	Programme	Institution	Country	Cat	Decision
Hydro						
1	S-5B	Basic Hydrographic Course	Bangladesh Navy Hydrographic School	Bangladesh	B	Not Recognized*
2	S-5B	Postgraduate Programme Hydrography B	Antwerp Maritime Academy - Institute for Hydrography	Belgium	B	Recognized with Conditions
3	S-5A	Long Hydrographic Course	National Hydrographic Office	India	A	Recognized with Conditions
4	S-5B	Basic Hydrographic Course	National Hydrographic Office	India	B	Recognized
5	S-5B	Course in Hydrography for Naval Officers	Indonesian Navy (SEHIDRAL)	Indonesia	B	Not Recognized*
6	S-5A	Hydrographic Education / Hydrographic Surveyor Profession Education Program	Geodesy and Geomatics Engineering Study Program - Institut Teknologi Bandung (ITB)	Indonesia	A	Recognized with Conditions
7	S-5A	Master in Marine Geomatics and Applied Technologies to Marine Environment	Italian Navy Hydrographic Institute	Italy	A	Not Recognized
8	S-5B	Hydrography for Charting, Disaster Prevention and Environmental Protection	Japan International Co-operation Agency (JICA) and Japan Coast Guard Hydrographic and Oceanographic Department (JHOD)	Japan	B	Not Recognized*
9	S-5A	Advanced Course in Hydrography	Japanese Coast Guard Academy	Japan	A	Not Recognized*
10	S-5A	UTM Hydro II (Hydrographic Surveying II Course)	Universiti Teknologi Malaysia (UTM)	Malaysia	A	Not Recognized
11	S-5A	Specialization Programme in Hydrography for Naval Officers	Peruvian Navy	Peru	A	Not Recognized*
12	S-5B	Specialization Course in Hydrography and Oceanography for Naval Petty Officers	Spanish Hydrographic Institute	Spain	B	Recognized with Conditions
13	S-5B	Hydrographic Course (HM100/203)	Maritime Warfare School - Hydrography and Meteorology Training Unit (HMTU)	UK	B	Recognized with Conditions

Carto						
14	S-8B	Course in Cartography	Korea Hydrographic and Oceanographic Agency (KHOA)	Republic of Korea	B	Not Recognized*
15	S-8B	Marine Geospatial Information Programme (Portable Delivery)	IIC Technologies Academy	India	B	Not Recognized*
Granted one year extension						
	S-5B	Course in hydrographic surveying	Centre Interdisciplinaire de Développement en Cartographie des Océans (CIDCO)	Canada	B	
	S-8B	Marine Cartography and Data Assessment (MCDA)	United Kingdom Hydrographic Office (UKHO)	UK	B	

*Note: Recognized with Conditions: further requirements or changes are necessary in response to identified issues. The required information is to be submitted within a period specified by the Board (Guidelines 8.2).

1. **IBSC Proposed Work Plan – Q2 2020 to Q2 2021**

1. The IBSC will continue to assist institutions to improve the quality of submissions to achieve *Right First Time* i.e. to reduce the number of submissions that are either not recognised or conditional recognition

IBSC Tasks

Task	Work Item	Priority	Milestones	Start Date	End Date	Status	Contact Person	Affected Pubs/Standard	Remarks
1	Review of IBSC43 Conditional Recognition submissions	H		Q2-Q3 2020	Q4 2020	O	Board Members		Intersessional
2	Improve FAQ <i>Right First Time</i> companion document	H		Q3 2020	Q1 2021	O	Board Members	New	Workshop / virtual WG to complete this task
3	IBSC44	M		2020		P	IHO Secretariat		Cádiz - Spain, March/April 2020
4	Succession Planning	M		2020		O	Board Members		Workshop / virtual WG

Abbreviations:

- 1) **Priority:** H-high, M-medium and L-low
- 2) **Status:** P-planned, O-ongoing and C-Completed