

**13<sup>th</sup> MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE  
IHO-IRCC13  
VTC, 23-25 June 2021**

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

<b>Submitted by:</b>	Chair, Ron Furness
<b>Related Documents:</b>	<ul style="list-style-type: none"> <li>- IHO 3 Year Work Programme - 3YEARWP2021-2023_ENG.</li> <li>- Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (S-5A, S-5B, S-8A &amp; S-8B).</li> <li>- Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers.</li> <li>- Frequently Asked Questions document.</li> <li>- IHR-Nov-2017-Article Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers.</li> </ul>
<b>Related Projects:</b>	N/A

<b>Chair:</b>	Mr Ron Furness, Australia (ICA)
<b>Vice-Chair 1:</b>	Capt. Nickolás Roscher, Brasil (IHO)
<b>Vice-Chair 2:</b>	Mr Sobri Syawie, Indonesia (FIG)
<b>Secretary:</b>	Mr Leonel Manteigas, IHO Secretariat
<b>Member States:</b>	<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: Emeritus Prof. Dr. Lysandros Tsoulos (Greece).</p>
<b>Expert Contributors:</b>	N/A
<i>see Annex A for full details</i>	

## 1. Meetings Held During Reporting Period

IBSC44 meeting by VTC (19-30 Apr 2021).

## 2. Work Program

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

- Review the IBSC Standards and maintain IBSC Publications (Task 3.8.4, IHO 3 year Work Programme 2021-2023),
- Review of the IBSC43 Conditional Recognition submissions (IBSC Work Plan Q2 2020 to Q2 2021, approved IRCC12, Decision 11).

Following the IBSC Work Plan Q2 2020 to Q2 2021, approved at IRCC12, and having regard to clarifications required following the experiences gained from the reviews conducted during IBSC44, the following companion to the Standards document will be re-published in 2021, and its publication date will be announced in an IHO Circular Letter during 2021:

- Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (Ed 2.1.2, <Month> 2021).

Due to the COVID Pandemic it was impossible to carry out the planned important on-site visits and these are postponed accordingly.

**Review of the IBSC43 Conditional Recognition submissions** (IBSC Work Plan Q2 2020 to Q2 2021, approved IRCC12, Decision 11).

Fifteen (15) submissions were reviewed at the IBSC43 meeting against the Standards. The table below provides a summary of the submissions reviewed during calendar year 2020, with the finalized situation achieved by the end of that year. It should be noted that IBSC reported to IRCC12 only the results pertaining immediately after the IBSC43 Meeting, with an initial 9 non recognized submissions, but following the comprehensive intersessional revisions by the IBSC of the 10 submissions, only 4 submissions out of the 15 were finally not recognized. The table below presents the final accurate picture.

2020 Status	In the IBSC43 Meeting		Intersessional Revision	After Intersessional Revisions	
	N Total	Standards		N Total	Standards
<b>Recognized</b>	<b>1</b>	1 S-5B		<b>11</b>	2 S-5A 7 S-5B 2 S-8B
<b>Recognized with conditions</b>	<b>5</b>	2 S-5A 3 S-5B	2 3		
<b>Not Recognized</b>	<b>9</b>	4 S-5A 3 S-5B 2 S-8B	3 2	<b>4</b>	4 S-5A
<b>Total</b>	<b>15</b>		<b>10</b>		

**IBSC44** (IBSC Work Plan Q2 2020 to Q2 2021, approved IRCC12, Decision 11).

Fourteen (14) submissions were reviewed at the IBSC44 meeting against the Standards and the Guidelines. It is emphasized that 8 of the 14 were new submissions and in this there were 2 new Individual Certification Schemes. The table below provides a summary of submissions reviewed and the preliminary results since only by the end of the year will the final situation be defined.

2021 Status	In the IBSC44 Meeting		Intersessional Revision	After Intersessional Revisions	
	N Total	Standards		N Total	Standards
<b>Recognized</b>	<b>1</b>	1 S-5B			
<b>Recognized with conditions</b>	<b>3</b>	1 S-5A 1 S-5B 1 S-8B	1 1 1		
<b>Not Recognized</b>	<b>10</b>	4 S-5A 4 S-5B 2 Schemes	2 4		
<b>Total</b>	<b>14</b>		<b>9</b>		

Full details of all 14 programmes considered at IBSC44 are listed in Annex A.

The IBSC44 also reviewed those Annual Reports received from institutions holding recognized programmes as well as the recognized Schemes.

Due to the need arising from IBSC44 to conduct the intersessional revision of 10 submissions, as well as the current Standards, it was decided to conduct a Workshop in late 2021. The Workshop is expected to be held in a hybrid format (face-to-face and VTC), as conditions allow, in the first week of November (venue TBD).

During the IBSC44 meeting it was also necessary to discuss and approve other important working items such as the IBSC Work Programme (Annex B). In relation to the postponed on-site visits, the IBSC established and budgeted for a list of 6 priority institutions to be visited when the situation allows.

The 45th meeting of the IBSC is planned to be held in Cádiz, Spain, in March/April 2022.

### **3. Progress on IRCC Action Items**

N/A.

### **4. Problems Encountered**

The main problem encountered remains the general quality of submissions. Despite the investment in time of the IBSC to revise the Standards' companion documents, the Guidelines and most recently the FAQs with clear examples, most of the submitting organizations did not follow them completely, presenting some significant omissions of information and also without the required level of detail. The IBSC closely follows its own Guidelines when reviewing submissions. Deficiencies in submissions are unfortunately frequent and inconsistencies abound when close attention is not paid to the requirements explained in the Guidelines document. Close attention to the submission requirements by a submitting institution generally results in recognition with only minor requirements for modification.

The large number of deficient submissions and the fact that most of them have a significant number of shortcomings, is the primary and important reason for the increased annual workload of the IBSC. The increased number of continuing reviews means that, under normal conditions, a second annual meeting is justified to finalize the reviews and complete the annual IBSC programme.

In an offer to assist institutions clarify and interpret the Guidelines for submissions, the IBSC has offered the engagement of some members to communicate with institutions to help in the preparation of their revised submission.

The VTC format for the annual meetings presents significant constraints to the work of the IBSC. The members are dispersed over 15 time zones and this impacts on the time available for each daily meeting of each of the 10 days allocated. Instead of the normal period of more than 7 working hours per day, the daily duration of the meeting and the related discussions need to be reduced to about 4 hours. With this important limitation, the discussion of the IBSC needs to almost wholly focused on the submissions and even these need to be strictly limited in time. To try to better control the time available for IBSC44, the presentation of the submitting institutions was sent in a recorded format prior to the Meeting and then the Delegates only were present in the questions and answers sessions. The cooperation of the institutions in this regard was appreciated.

## 5. Any Other Items of Note

### *Annual workshop*

A number of factors in recent years have made it imperative for the IBSC to conduct a one-week Workshop late in the calendar year relative to the pending workload arising from the previous IBSC plenary meeting. The imperative is influenced by increased submissions, the need to review the Standards and the companion documents and additionally to complete the intersessional reviews. As institutions become more familiar with submissions against the current Standards it is anticipated that the need for intersessional reviews will decrease with consequently reduced pressure on the need for holding a Workshop. The IBSC is attuned to achieving this objective.

### *HSSC Decision HSSC13/57*

Following a proposal from the HSWG to act as focal group for user and industry experience of individual hydrographic accreditation/certification to collate feedback to IBSC, HSSC confirmed that this role was not in the approved HSWG TORs, and the HSWG Work Programme was already extensive. *If appropriate*, HSWG to report at the next HSSC meeting whether HSWG considers there is a need to amend its HSWG TORs to establish and support IBSC in the future as a permanent task.

The consensus view of the IBSC is that such a role being assigned to the HSWG is *inappropriate*.

The IBSC notes that the proposal did not appear in the HSWG Report to the HSSC13 but in its presentation.

The IBSC considers very strange this decision that only will depend on the HSWG consideration and without this WG ever having contacted the IBSC. The HSWG Chair knows the work of the IBSC since at IBSC44 he was part of the delegation that presented a submission for a Certification Scheme to be recognized. IBSC considers that is not necessary for HSWG to collate this information as the IBSC reporting process reviews annually by their reports to the IBSC the recognized programmes and Certification Schemes. If this action was to be approved, the IBSC would presumably be encouraged by the IHO to relinquish the role, since the HSWG will then have that attribution. In reality, the IBSC and other IHO WG, such as the MSDI or the CSB, already cannot engage with the surveys industry since HSWG ToR point 2.g. mentioned "Act as a focal point for hydrographic surveys industry engagement with the IHO." This means that all engagement with the hydrographic surveys industry should be through the HSWG with the limitations that this could bring also for the IHO Secretariat for instance. IHO Focal points should be defined within the scope of the group's mandate and not within a type of industry that normally has activities in other complementary or related areas.

The IBSC continues to be the appropriate body to receive and act on this kind of information. There is no need for an "IHO focal group for user and industry experience of individual hydrographic accreditation/experience". Each Scheme is different and caters for different nations/geographic regions and should have its own feedback system; the IBSC recognition process requires Schemes to have a process of review and report annually to the IBSC.

### *Succession plan*

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

## 5.1 Impact of the COVID-19 pandemic

In November of 2020, due to the large quantity of meetings by VTC that were postponed to the end of the year in the hope that was possible they could be conducted in a face-to-face mode, it was not possible to conduct the annual IBSC Workshop.

The annual Meeting, IBSC 44, scheduled to be held in Cádiz, Spain was conducted by VTC with several limitations and the need to adapt the agenda and the regular workflow of the annual meetings. Operating in this format, the Members did not have the advantage to be together in one place, with the advantage of being able to exchange opinions before and after the Meeting sessions. Also, the working hours of the meeting were significantly reduced, with some Members having to endure sessions extremely early in the morning and others, very late at night.

The presence of the delegations at an IBSC meeting is always of added value since the opportunity for clarifying discussions is achieved. Unfortunately, extended communication was impossible with the communication difficulties and the consequent impact.

The organization of the Meeting required an intense and time-demanding preparation of the sessions and a close contact with the institutions with the definition of a clear and strict guidance for the conduct of the meeting. However, it should be noted that the IBSC and the institutions demonstrated a remarkable capacity of adaptation that made it possible to achieve a positive result, with all expected objectives reached and a few even surpassed.

Ideally, it is expected that the IBSC internal workshop in November 2021 could be conducted in a face-to-face mode, with the important advantages of this format, but if it becomes necessary, it will be conducted by VTC.

In relation with the Annual Meeting of IBSC45, it is presently proposed to be conducted in March/April 2022 in Cadiz, Spain. If this is possible, then it is expected that the IBSC would return to the normal meeting format having also present the submitting delegations. If necessary, the meeting could be conducted by VTC since now the IBSC has already this experience, but the impact will be significantly negative as outlined above.

In relation with the institutions' conduct of their courses, as it was also reported last year, several reported the need to adapt their programmes due to the COVID. The practical items and field projects have been the most affected since they cannot be replaced by remote learning. The IBSC expects that with evolution of the situation the delivery of classes approaches normality, though the experience of the institutions arising from their teaching adaptations may lead some to seek changes.

## 6. Conclusions and Recommended Actions

The difficulties for the submissions and the programmes in adapting to the new standards has been clear in the years since their promulgation and is proven by the generally low number of submissions recognized in the first review.

To provide additional support, the IBSC improved the Guidelines, clarifying some points and giving better or more detailed examples and also issued the new Frequently Asked Questions document, expecting that with these two documents the situation would improve and that the Right First Time principle steadily became more a reality. However, it is clear, in most cases, that the institutions did not follow the Guidelines closely enough and frequently diverge from the Guideline requirements. Often, required information was omitted. Despite the IBSC providing a number of templates, some institutions change them and thereby do not provide the required level of detailed information.

The number of submissions and the fact that most of them have a significant number of shortcomings requires an important increase in work of the IBSC due to the increased number of reviews in the first

place, and then the number of necessary intersessional reviews, which means that, under normal conditions, a second annual meeting is required and justified.

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 IBSC requested the institutions to maintain the required level and for them to communicate any significant change, having received several communications.

Also, the ongoing pandemic significantly affected the work of the IBSC with the need to have the IBSC44 meeting by VTC, without the usual presence of members of the submitting Delegations and with a significantly reduction in the Meeting time which curtailed the discussion of some IBSC work items.

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

HSSC13 decision 57 and the HSWG TOR, if implemented, potentially creates an important limitation for the IBSC. The consensus view of the IBSC is that such a role being assigned to the HSWG is *inappropriate*.

## **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.

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 IBSC is always available to engage with the institutions to clarify any questions through correspondence and with essential on-site visits and it also seeks opportunities for stakeholder engagement at conferences, meetings and workshops when conditions permit (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 IBSC members despite the difficulties imposed by the VTC format of IBSC44, to review all 14 submissions received as well as offering intersessional revisions to 10.
- 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 2021 to Q2 2022 (Annex B).
- f) Ask HSSC to consider withdrawing decision HSSC13/57 and instructing HSWG to review their TOR and liaise with IBSC before proposing any actions relating to the IBSC's role.
- g) Take any other actions as appropriate.

DETAILS OF SUBMISSIONS CONSIDERED AT IBSC44

No	Standard	Programme	Institution	Country	Cat	Decision
<b>Hydro</b>						
1	S-5B	Specialization Course in Hydrography for Navy Officers	School of Marine Sciences	Argentina	B	Recognized with Conditions
2	S-5B	Course in hydrographic surveying	Centre interdisciplinaire de développement en cartographie des océans (CIDCO)	Canada	B	Not Recognized*
3	S-5A	Master of Applied Ocean Technology (Ocean Mapping)	Marine Institute of Memorial University of Newfoundland	Canada	A	Not Recognized
4	S-5B	Graduate Diploma in Applied Ocean Technology (Ocean Mapping)	Marine Institute of Memorial University of Newfoundland	Canada	B	Not Recognized*
5	S-5A	Geodesy and Geomatics Engineering – Hydrographic Surveying Option	University of New Brunswick	Canada	A	Not Recognized*
6	S-5A	Master in Marine Geomatics and Applied Technologies to Marine Environment	Italian Navy Hydrographic Institute	Italy	A	Not Recognized*
7	S-5B	Intermediate Course for Military and Civilian Attendees	Italian Navy Hydrographic Institute	Italy	B	Not Recognized*
8	S-5A	UTM Hydro II (Hydrographic Surveying II Course)	Universiti Teknologi Malaysia (UTM)	Malaysia	A	Recognized with Conditions
9	S-5A	Specialization Programme in Hydrography for Naval Officers	Peruvian Navy	Peru	A	Not Recognized
10	S-5B	CAT "B" - Hydrography Surveying	Faculty of Maritime Studies, King Abdulaziz University	Saudi Arabia	B	Recognized
11	S-5B	Bachelor of Science Honours in Surveying Sciences - Specialisation in Hydrographic Surveying	Sabaragamuwa University of Sri Lanka	Sri Lanka	B	Not Recognized*
<b>Carto</b>						
12	S-8B	Marine Cartography and Data Assessment (MCDA)	United Kingdom Hydrographic Office (UKHO)	UK	B	Recognized with Conditions

<b>Schemes</b>						
13		IFHS Hydrographic Professional Accreditation Scheme (HPAS)	International Federation of Hydrographic Societies (IFHS)	UK		Not Recognized
14		NSPS-THSOA U.S. Hydrographer Certification.	The Hydrographic Society of America (THSOA)	USA		Not Recognized

\*Note: To these programmes the IBSC offered the possibility to present a revised submission to be reviewed intersessionally and/or one-year extension.



1. **IBSC Proposed Work Plan – Q2 2021 to Q2 2022**

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 IBSC44 intersessional submissions	H		Q2-Q3 2021	Q4 2021	P	IBSC Members		Intersessional
2	Improve Guidelines document and FAQ <i>Right First Time</i> companion document	H		Q3 2021	Q1 2022	P	IBSC Members		Workshop to complete this task. Options: November 1-5/ VTC Lisbon, Monaco or Singapore
3	IBSC45	M		2021		P	IHO Secretariat		Cádiz - Spain, or Lisbon, Portugal March/April 2022
4	Succession Planning	H		2021		O	IBSC Members		Workshop / virtual WG
5	On-site visits to provide guidance and assistance to institutions	M		Q4 2021 & Q1/Q2 2022		P	IBSC Members		As travel opens according to priorities

**Abbreviations:**

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