

**11th MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE
IHO-IRCC11
Genoa, Italy, 3-5 June 2019**

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

Submitted by:	Chair, Adam Greenland
Related Documents:	<ul style="list-style-type: none"> - IHO Work Programme 2017 - WP2017E_approved - 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 - IHR-Nov-2017-Article <i>Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers</i>
Related Projects:	N/A
Chair:	Mr Adam Greenland, New Zealand (FIG)
Vice-Chair1:	Mr Ron Furness, Australia (ICA)
Vice-Chair2:	Capt. Nickolás Roscher, Brazil (IHO)
Secretary:	Mr. Alberto Costa Neves, IHO Secretariat
Members:	<p>IHO: Capt. Andrew Armstrong (USA), Commodore Rod Nairn (Australia), Capt. Leonel Pereira Manteigas (Portugal);</p> <p>FIG: Mr. Gordon Johnston (UK), Prof. Keith Miller (Trinidad and Tobago), Mr. Sobri Syawie (Indonesia);</p> <p>ICA: Prof. Lysandros Tsoulos (Greece).</p>
Expert Contributors:	N/A
<i>see Annex C for full details</i>	

1. Meetings Held During Reporting Period

IBSC Intersessional Workshop was hosted by MPA, Singapore (5-9 Nov 2018)

IBSC42 meeting was hosted by University of Hawaii Marine Center, USA (25 Mar-5 Apr 2019)

[IBSC43 meeting will be hosted by Cartagena de Indias, Colombia (9-20 Mar 2020)]

2. Work Program

In addition to the annual meeting the IBSC has been working on the following tasks:

- Implementation of the *Right First Time* principle, i.e. assisting institutions improve the quality of submissions; (IBSC Work Plan Q2 2018 to Q2 2019, approved IRCC10, Decision 26) and,
- Review the IBSC standards and maintain IBSC Publications (Task 3.8.4, IHO 3 year Work Programme 2018-2020)

Following decisions made at IRCC10 the following standards were published in 2018:

- *S-5A Standards of Competence for Category "A" Hydrographic Surveyors* (Ed. 1.0.2, June 2018)

- S-8A *Standards of Competence for Category "A" Nautical Cartographers* (Ed. 1.0.1, June 2018)

They are accompanied by the companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers* (Ed 2.1.0, May 2019). This extensive update to the Guidelines includes:

- Section 6. Professional Certification or Recognition Schemes clarified
- Section 7.1 a single PDF digital submission only
- Section 7.1.3 Inserted an example of a Module Schedule Table
- Section 7.1.3 Requirement for a Timeline of the programme
- Section 7.2.3. Inserted an example of the Practical Exercises Table
- Section 8.1 & 8.2. Clarified IBSC review and Evaluation Process
- Section 9.3 & 9.4. Requirements for Annual Report modified
- Annex A. Checklist and flow diagrams modified

Sixteen (16) submissions were reviewed at the IBSC42 meeting against the new standards. The table below provides a summary of submissions reviewed.

Status	N.	Standards of Competence
Recognized	2	2 x Hydro S-5B
Recognized with Conditions	9	1 x Hydro S-5A 4 x Hydro S-5B 2 x Carto S-8A 1 x Carto S-8B 1 x Scheme S-5 (A&B)
Not recognized	5	2 x Hydro S-5A 3 x Hydro S-5B
Total	16	

Full details of all 16 programmes are listed in **Annex A**. Note there were four new programmes submitted for recognition at IBSC42.

At the Singapore workshop and the IBSC42, the Board reviewed the companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers*, 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, adopting a formal process for receipt and intersessional review of annual reports, and reviewing the Rules of Procedure and the development of a document with lessons learned and frequently asked questions to support submitting institutions (see Tasks in **Annex B**).

The Board amended the Rules of Procedure to make the finance information clearer for submitting institutions:

www.iho.int/ibsc → Terms of Reference and Rules of Procedure

3. Progress on IRCC Action Items

IRCC10 Action item 17 has been completed by the IHO Secretariat

4. Problems Encountered

The main problem encountered is 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. With the change of structure associated with those new Standards, existing programmes based on earlier standards do

not easily map into a new submission and all institutions planning a submission this year should begin the process now.

A white paper (IHR-Nov-2017 - Article Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers) was developed to assist and is available from the IHO website:

www.iho.int/ibsc → Article published in the IHR (November 2017)

5. Any Other Items of Note

Capt. Leonel Pereira Manteigas, Portugal (IHO), has been appointed to the Board effective 1st September 2018, as announced in CL42/2018.

As per the IBSC Rules of Procedure, the current Chair will complete the 3 year term of office in 2019. The first Vice-Chair Mr Ron Furness, Australia (ICA), will become the new Chair on 30 September 2019.

The IBSC acknowledges the high level of support from the IHO Secretariat in delivering the updated Guidelines and the ongoing work programme of the IBSC.

6. Conclusions and Recommended Actions

The new standards framework implementation is a major undertaking for submitting institutions and requires a step change by institutions in the preparation of programmes and submissions to match the improved standards.

A new updated companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers* has been published which now includes examples of the level of content required in the programme submission documentation.

www.iho.int/iho_pubs/IHO_Download.htm → Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (Ed 2.1.0, May 2019)

All submitting institutions are encouraged to consult the Guidelines and the white paper (IHR-Nov-2017 - Article Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers) early on in the process of preparing submissions for programme recognition.

The IBSC will continue to assist institutions improve the quality of submissions; to increase the likelihood a programme will be recognized at the first review stage, i.e. the *Right First Time* principle.

7. Justification and Impacts

The goal behind the *Right First Time* principle is to minimise the number of issues in programme submissions the first time they are submitted to the IBSC for 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 and 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 is that all programmes are Recognized at the first review stage.

This tasks to achieve this include, but are not limited to, development of FAQs to avoid past mistakes, early engagement with submitting institutions, assistance on interpreting the Standards and Guidelines, review the Guidelines for clarity and consistency, peer review, check each submission upon receipt for completeness to ensure it is eligible for Board Review, enforce Guidelines requirements, visits to training institutions and seek 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 new companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers Ed. 2.1.0 (May 2019)*
- c) Encourage Member States and submitting institutions to engage with the IHO Secretariat early on in the process of preparing submissions for programme recognition
- d) Encourage Member States and submitting institutions to consult the Guidelines and the white paper (IHR-Nov-2017 - *Article Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers*) early on in the process of preparing submissions for programme recognition
- e) Agree the IBSC Proposed Work Plan – Q2 2019 to Q2 2020 (Annex B)
- f) Note the amendments to the Rules of Procedure (RoP)
- g) Take any other actions as appropriate

List of Programmes and Decisions at IBSC42

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

No	Standard	Programme	Submitted by		Cat	Decision
HYDROGRAPHY						
1	S-5B	Hydrographic Surveying Programme	IIC Technologies Academy	India	B	Recognized
2	S-5A	Long Hydrography Course	National Institute of Hydrography	India	A	Not Recognized
3	S-5B	Basic Hydrography Course	National Institute of Hydrography	India	B	Not Recognized*
4	S-5B	Basic Course in Hydrography	Dalian Naval Academy (DNA)	China	B	Recognized with Conditions
5	S-5B	Ocean Science Course	Japanese Coast Guard School	Japan	B	Recognized with Conditions
6	S-5B	Course in Hydrography (HYDRO I)	Universiti Teknologi Malaysia (UTM)	Malaysia	B	Recognized with Conditions
7	S-5B	Hydrography Programme	Nigerian Navy Hydrographic Office	Nigeria	B	Not Recognized
8	S-5A	Hydrography Surveying	King Abdul-Aziz University	Saudi Arabia	A	Not Recognized*
9	S-5B	Hydrographic Surveying Course	ST Electronics (Training & Simulation Systems) Pte Ltd	Singapore	B	Recognized
10	S-5A	Specialization Course in Hydrography and Oceanography for Naval Officers	Spanish Hydrographic Institute	Spain	A	Recognized with Conditions
11	S-5B	HM(H100) Course	Royal Navy Flag Officer Sea Training	UK	B	Not Recognized*
12	S-5B	International Hydrographic Management and Engineering Program (IHMEP)	United States Naval Information Warfare Training Group Gulfport	USA	B	Recognized with Conditions

CARTOGRAPHY						
13	S-8A	University Degree in Cartography	School of Marine Sciences, Navy	Argentina	A	Recognized with Conditions
14	S-8A	Programme for Bachelor of Engineering Degree in Cartography	Dalian Naval Academy (DNA)	China	A	Recognized with Conditions
15	S-8B	Programme for Bachelor of Engineering Degree in Cartography	Dalian Naval Academy (DNA)	China	B	Recognized with Conditions
Schemes for Professional Certification of Individual Recognition						
16	S-5	Australasian Hydrographic Surveyors Certification Panel (AHSCP).	Surveying & Spatial Sciences Institute (SSSI) Competency Scheme	Australia	A B	Recognized with Conditions
Granted one year extension						
	S-5	Long Hydrography Course	National Institute of Hydrography	India	A	
	S-5	Postgraduate Programme Hydrography B	Antwerp Maritime Academy - Institute for Hydrography	Belgium	B	
	S-5	Course in Hydrography for Naval Officers	Indonesian Navy (SEHIDRAL)	Indonesia	B	
	S-5	Specialization Course in Hydrography and Oceanography for Naval Petty Officers	Spanish Navy Hydrographic Institute	Spain	B	
	S-8	Marine Cartography and Data Processing Course	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).

IBSC Proposed Work Plan – Q2 2019 to Q2 2020

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 IBSC42 Conditional Recognition submissions	H		Q2-Q3 2019		O	Board Members		Intersessional
2	Publish FAQ <i>Right First Time</i> companion document	H	IBSC43	Q3 2019	Q1 2020	P	Chair	New	Workshop / virtual WG to complete this task
3	On-site visits to provide guidance and assistance to institutions	M		Q3-Q4 2019		P	Board Members		China, Indonesia-Navy, Belgium
4	Stakeholder engagement – workshops, presentations	M		2019-20		P	Board Members		Oceans19, ICC 2019 General Assembly
5	IBSC43	M		2020		P	IHO Secretariat		Colombia, March 2020

Abbreviations:

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

LIST OF MEMBERS (19 February 2019)

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