



Report of the FIG/IHO/ICA IBSC to the IHO IRCC10

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The Board

10 Board members: 4 FIG, 4 IHO, 2 ICA
(+IHO Secretariat)



10 June 2018

The Role of the Board

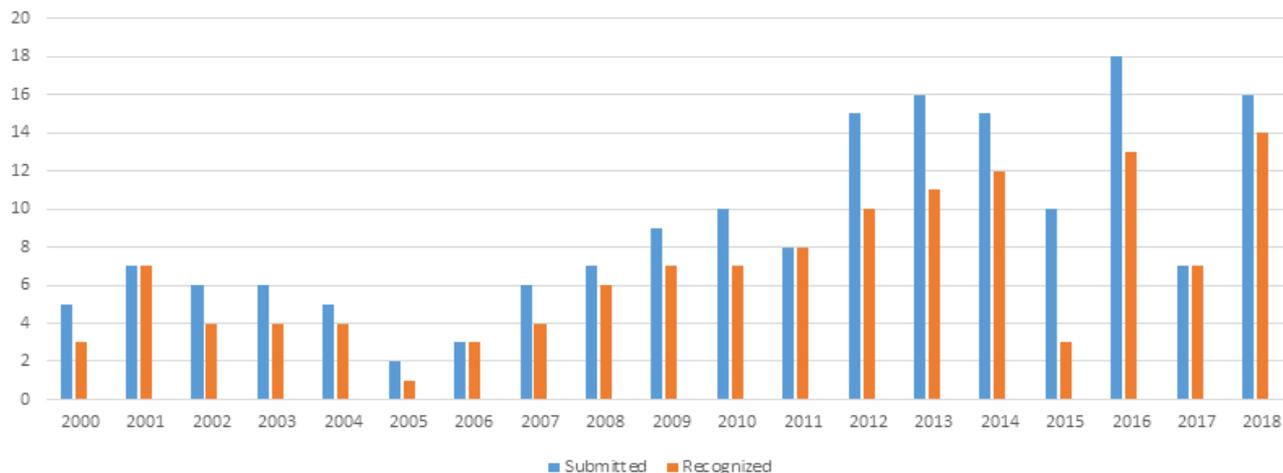


- **Review** syllabi of programmes and individual recognition schemes from education and training institutions
- **Maintain IBSC publications;**
- **Provide guidance** to education and training institutions;
- **Support the IHO** for the establishment of new hydrographic programmes where regional training capacity does not exist;
- **Review** the procedures of submission.

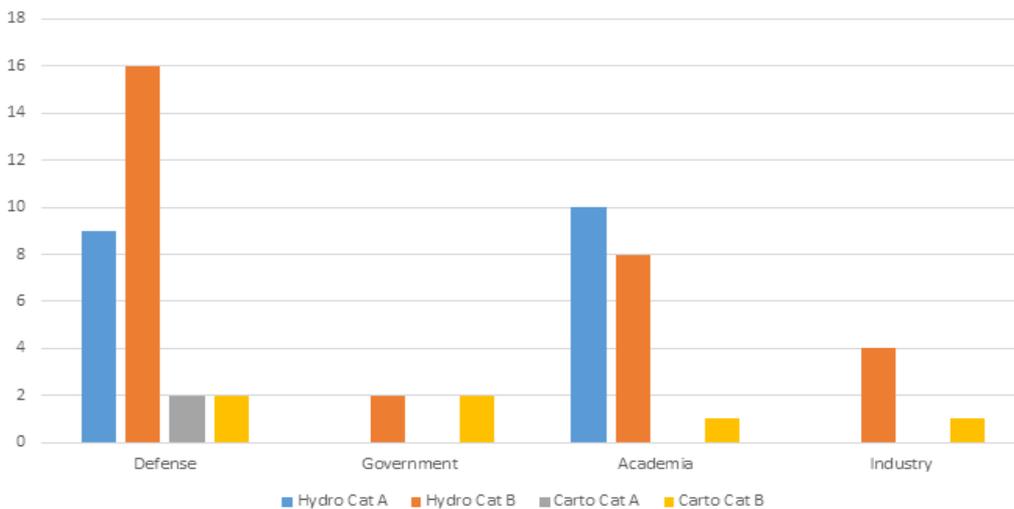


Recognised Programmes

Submitted Programmes to IBSC



Recognized Programmes



- **Total 57** recognized programmes & 2 recognized schemes
- 49 Hydro (19xCatA & 30xCatB)
- 8 Carto (2xCatA & 6xCatA)

Work Program 2017-2018



The IBSC has been working on the following tasks :

- New standards development - IBSC to develop a new Standards framework to separate competency requirements for Cat A and Cat B (Task 3.3.9.1, IHO Work Programme for 2017) and,
- Review the IBSC standards and maintain IBSC Publications (Task 3.8.4, IHO 3 year Work Programme 2018-2020)
- IBSC41 meeting April 2018
- Engagement with the SEPRHC13 meeting, from 21 to 25 August 2017, in Cartagena, Colombia and visits to both Colombian academies - Academy for Petty Officers in Barranquilla and Course for Officers (Academy in Cartagena).
- Article published in the IHR (November 2017) [Maintaining the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers: A Modern Approach](#)

New Standards Framework Published



Following decisions made at IRCC9 and IHO MS approval and adoption of S-8A and S-8B by CL45/17 and CL54-17 the following standards were published in 2017:

Standard	Ed
S-5A Standards of Competence for Category "A" Hydrographic Surveyors	Ed. 1.0.1, June 2017
S-5B Standards of Competence for Category "B" Hydrographic Surveyors	Ed. 1.0.1, June 2017
S-8A Standards of Competence for Category "A" Nautical Cartographers	Ed. 1.0.0, September 2017
S-8B Standards of Competence for Category "B" Nautical Cartographers	Ed. 1.0.0, September 2017

They are accompanied by the companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers* (Ed 2.0.0, March 2017)

IBSC41 Meeting 16-17 April 2018



IBSC41 BANDUNG
16-27.04.18

41st MEETING OF THE FIG/IHO/ICA
INTERNATIONAL BOARD ON
STANDARDS OF COMPETENCE FOR
HYDROGRAPHIC SURVEYORS AND
NAUTICAL CARTOGRAPHERS

17 INSTITUTIONS

17 NATIONS

4 CONTINENTS

**ONE PURPOSE:
HYDROGRAPHY**

- Annual meeting - 10 days
- Hosted by Institut Teknologi Bandung (ITB), Indonesia
- 16 Submissions from 10 countries (14 Hydro & 2 Carto)
 - 3xUSA, 2xUK, 2xArgentina, 2xChina, 2xColombia, Malaysia, Peru, Portugal, Sweden & Turkey
- 3 submissions per day, 10 delegations, 16 presentations

IBSC41 Submissions



Sixteen (16) submissions were reviewed against the new standards.

Status	N.	Standards of Competence
Recognized	3	2 x Hydro S-5B 1 x Hydro S-5A
Recognized with Conditions	11	4 x Hydro S-5A 6 x Hydro S-5B 1 x Carto S-8A
Not recognized	2	1 x Hydro S-5A 1 x Carto S-8A
Total	16	

- 5 new programmes submitted
- 14 programmes recognized

IBSC41 Stakeholder Meeting





Challenges:

- Prof. Nicolas SEUBE, Canada (IHO), past Chair 2014-2016, has resigned from the Board.
 - CL23 Vacancy for IHO representative
- Managing workload
 - Large number of submissions
 - Recognition period 6 yrs
 - New programmes and schemes
- Quality of submissions
 - Recognized with conditions / Not Recognized
 - *Right First Time* principle - all programmes are Recognized at the first review stage
- Stakeholder engagement & outreach
 - Promoting the work of the IBSC and Standards
 - Guidance and assistance to institutions

Proposed Work Plan



ANNEX B

Task	Work Item	Priority	Milestones	Start Date	End Date	Status	Contact Person	Affected Pubs/Standard	Remarks
1	Review of IBSC41 Conditional Recognition submissions	H		Q2-Q3 2018		O	Board Members		Intersessional
2	Develop FAQ Right First Time companion document	H		Q4 2018	Q1 2019	P	Chair	New	1 week workshop
3	Review submission process	M	July 2018 Invitation Letters	Q2-Q3 2018		O	Chair IHO Secretariat	Guidelines	Right First Time
4	On-site visits to provide guidance and assistance to institutions	M		Q3-Q4 2018		P	Board Members		China, Colombia, Canada, Indonesia-Navy, Malaysia
5	Stakeholder engagement – workshops, presentations	M		2018-19		P	Board Members		Hydro18, Shallow Survey 2018, ICC 2019 General Assembly
6	Review item 6. competency schemes	L		2019		P	Board Members	Guidelines	Intersessional
7	IBSC42	M		2019		P	IHO Secretariat		Venue and dates TBD

S-5A & S-8A Clarification/Amendments



ANNEX C - Standard: S-5A 1.0.1

Task: review Maritime Zones, Delimitations (H8.2a) following proposal from India on the UNCLOS.

<p>H8.2a Delimitations (B)</p>	<ul style="list-style-type: none"> (i) Historical development of 1982 UNCLOS. Baselines—normal (including closing lines); straight and archipelagic (ii) Base points (iii) Low tide elevations (iv) Baselines: normal (including bay closing lines); straight and archipelagic (v) Internal waters. (vi) Territorial seas. (vii) Contiguous zones. (viii) Exclusive Economic Zone (ix) Extended continental shelf. (x) High seas 	<p>Define the types of baselines under UNCLOS and how the territorial sea limit and other limits are projected from them, including the use of low tide elevations.</p> <p>Plan and specify hydrographic surveys to be utilized in the delimitation of baselines and maritime boundaries. Conduct and document surveys with appreciation for the type of baselines and the implication of the baselines.</p> <p>Describe the legal operational constraints that apply within maritime zones.</p>
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S-5A & S-8A Clarification/Amendments

ANNEX C - Standard: S-8A 1.0.0

Task: review comments provided by Chile in CL 54/2018 on Printing on Demand and two other clarifications

<p>F2.6 Depth measurement</p> <p>(I)</p>	<p>(i) Evolution of technology and methodologies for depth measurement</p> <p>(ii) Hydrographic vs. bathymetric data measurement</p> <p>(iii) Influence of the environmental factors on depth measurement</p> <p>(iv) Error sources in depth measurement.</p>	<p>Classify different methods and systems used for depth measurement with respect to their accuracy.</p> <p>Assess the suitability of different depth measurement methods to achieve specific surveying and charting objectives.</p> <p>Examine data for depth measurement uncertainty in relation to the measurement methods employed.</p>
<p>C1.5</p> <p>Cartographic data-s Scales of measurement of cartographic and geographical variables</p> <p>(I)</p>	<p>(i) Scales of measurement of cartographic and geographical variables Scales of cartographic data measurement:</p> <ul style="list-style-type: none"> • Nominal scale • Ordinal scale • Interval scale. 	<p>Differentiate cartographic and geographical variables data according to their scale of measurement.</p>
<p>C4.3g Mapping on demand</p> <p>(I)</p>	<p>(i) Customized mapping from existing databases.</p> <p>(ii) Printing up-to-date official nautical chart from an existing catalog</p>	<p>Identify and apply the processes required for mapping and printing on demand.</p>

The IRCC is invited to:



- a) Note this report;
- b) Acknowledge the work done by the Board in the delivery of the new framework for the Standards of Competence for Hydrographic Surveyors and Nautical Cartographers
- c) Approve the clarifications/minor amendments made in IHO Publications S-5A Ed 1.0.1 and S-8A Ed 1.0.0 (Annex C)
- d) Note the IBSC goal of *Right First Time*
- e) Agree the IBSC Proposed Work Plan – Q2 2018 to Q2 2019 (Annex B)
- f) Take any other actions as appropriate



Thank You

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