



IHB File No. AB-4/S-5

CIRCULAR LETTER 50/2016
28 September 2016

**ADOPTION OF EDITION 1.0.0 OF IHO PUBLICATION S-5A -
STANDARDS OF COMPETENCE FOR CATEGORY "A" HYDROGRAPHIC SURVEYORS**

Reference: IHO CL 30/2016 dated 01 July – *Call for approval of edition 1.0.0 of IHO Publication S-5A – Standards of Competence for Category "A" Hydrographic Surveyors.*

Dear Hydrographer,

1. The Circular Letter in the Reference proposed the adoption of edition 1.0.0 of IHO Publication S-5A - *Standards of Competence for Category "A" Hydrographic Surveyors*. The Directing Committee would like to thank the following 62 Member States that replied to the Circular Letter: Algeria, Argentina, Australia, Bahrain, Bangladesh, Belgium, Brazil, Brunei Darussalam, Canada, Chile, Colombia, Croatia, Cuba, Cyprus, Ecuador, Estonia, Fiji, Finland, France, Georgia, Germany, Greece, Iceland, India, Ireland, Italy, Japan, Latvia, Malaysia, Mauritius, Mexico, Morocco, Mozambique, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Papua New Guinea, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Singapore, Slovenia, South Africa, Spain, Suriname, Sweden, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Kingdom, United States of America, Uruguay and Venezuela.

2. All Member States, except two, supported the adoption of the new edition of S-5A, one did not approve and the other abstained from voting. Eight Member States offered comments in addition to their vote. Their comments and the outcome of their review resulting in several minor consequential adjustments proposed by the FIG/IHO/ICA International Board on Standards of Competence for Hydrographic Surveyors and Nautical Cartographers (IBSC) are provided in Annex A to this letter.

3. There are currently 85 Member States of the IHO with three States suspended. Therefore, in accordance with paragraph 6 of Article VI of the Convention on the IHO, the majority required for adoption of the new edition is 42. As a result, the proposed edition 1.0.0 of IHO Publication S-5A has been adopted, by including the minor adjustments reported in Annex A. The IHO Publication S-5 is superseded and replaced by the two separate sets of Standards of Competence for Hydrographic Surveyors, Category "A" (S-5A) and Category "B" (S-5B).

4. The new Edition 1.0.0 (*English version only*) is available on the IHO website at: www.iho.int → Standards & Publications → Download → S-5A. In addition to Publications S-5A and S-5B (adopted in January 2016), the Download page also contains the companion document *Guidelines for the Implementation of the Standards of Competence for Hydrographic Surveyors* and supplementary documents to help institutions to submit their Category A and Category B programmes for recognition.

On behalf of the Directing Committee
Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Mustafa IPTES', is written over a light blue circular stamp.

Mustafa IPTES
Director

Annex A: Member States' responses to IHO CL 30/2016 and comments from the FIG/IHO/ICA IBSC.

Distribution:

- IHO Member States
- IBSC Chair
- CBSC Chair
- Hydrographic Training and Education Institutions recognised by the IBSC

**MEMBER STATES' RESPONSES TO IHO CL 30/2016 AND COMMENTS FROM
THE FIG/IHO/ICA INTERNATIONAL BOARD ON STANDARDS OF COMPETENCE FOR
HYDROGRAPHIC SURVEYORS AND NAUTICAL CARTOGRAPHERS (IBSC)**

**ADOPTION OF THE EDITION 1.0.0 OF IHO PUBLICATION S-5A
STANDARDS OF COMPETENCE FOR CATEGORY "A" HYDROGRAPHIC SURVEYORS**

AUSTRALIA

Vote = YES

Well done on this evolutionary version of the Cat "A" Syllabus.

IBSC comment: The Board thanks Australia for its support.

BRAZIL

Vote = YES

The DHN would like to congratulate IBSC for the excellent job, on the new edition of S-5A. Nevertheless, we would like to register the following suggestions:

- a) Each Element could show the "minimum workload" required (in lecture hours). This would facilitate the organization of the programme and its contents;
- b) The Element H4.1a "Hydrographic survey requirements": the contents concerning "seismic, gravity and geomagnetic surveys", "pipeline route, pipeline installation, inspection and cable laying surveys" are more applicable to industrial activities could be, therefore, presented as intermediate level; and
- c) The Element H6.1 "Real-time data acquisition and control" related to LiDAR data products: ROVs and AUVs could be presented as intermediate level, as well, because its operation is still very expensive and other cheaper hydrographic systems can obtain similar quality results, using stored data from Third Party projects.

IBSC comment:

- a) *The Board considered that the suggestions would be too prescriptive, particularly given that a course is not only defined in terms of lecture hours, but also includes practical tasks, and laboratory work. Institutions should be free to decide on how they can best deliver each component. As such the Board will review delivery within submissions.*
- b) *Recognition against the standards is sought by charting and industrial training establishments and as such the standards must consider the various types of organizations. Furthermore, hydrographic surveyors commencing a career in a charting establishment often move to commercial work later and as such require the necessary commercial skills.*
- c) *The use of ROVs and AUVs is advancing rapidly and becoming popular. While it is agreed that operations are expensive, there is need for coverage in depth even if equipment may not now be available.*

COLOMBIA

Vote = YES

We approve the present edition. However, we recommend to take into account the comments made by Colombia by means of the letter Ref. 29201602597 of 19th April 2016.

Spanish:

Se aprueba la presente edición, sin embargo, se recomienda tener en cuenta los comentarios realizados por Colombia mediante oficio No. 29201602597 del 19 de abril de 2016.

IBSC comment: The letter Ref. 29201602597 was received after the deadline such that the Board could not consider it in the context of the draft that was submitted to IRCC and subsequently for the approval of the Member States. However, the suggestions presented in the letter were taken into consideration in the final version of S-5A as follows:

Page 3: insert item C “Programme preparation and submission” and the list of acronyms.

Agreed

In the Hydrographic Science subjects (H8) include a topic on world-wide organizations related with hydrography and which depends on hydrographic data for their decisions. The learning outcome is: “Raise awareness of hydrographic surveyors that bathymetric data are not only for nautical charts but are also vital tools for other organizations”.

Not agreed

In addition, correct the following items:

Element B3.6 – Learning outcomes: “Model a light ray - path through medium with various reflective and refractive properties. Use the characteristics of a lens to calculate ~~geometrical~~ (geometric) properties of an image”.

Not agreed

Element B3.8 – Content: “(iv) Measurement of ~~elapsd~~ (elapsed) time”.

Agreed

Element B4.2 – Content: “(ii) ~~ERIRBs~~ (EPIRBs) and SARSAT”.

Agreed

Element H1.2d - Learning outcomes: “Specify, supervise and test the installation of GNSS hardware and software for both ~~inshore~~ (shore)”.

Not agreed

Element H3.2b: “Satellite altimetry and Bathymetry”.

Not agreed

ITALY

Vote = NO

We believe that the proposed system implies too many competencies for a single specialization. We are in favour of the current academic training, which includes several options. Furthermore, some aspects are not considered in the proposed version of S-5A, such as:

- Seafloor feature;
- Seabed nature and sediment sampling;
- Seabed characterization.

IBSC comment:

The competencies allow for a wide range of specialisations, more than could be listed. While certain core skills are essential, organizations are free to refine their programme in alignment with a specialization of their choosing by allocating additional hours. The Board does not view the competencies as providing a single specialization, but they offer greater flexibility than would be available through named specializations.

For sea floor feature see F3.1b. A sediment sampling item is indeed missing and was added in the final version. H2.4 includes seabed classification, and the learning outcome for H3.4a specifically states seafloor characterisation.

NETHERLANDS

Vote = ABSTENTION

As requested, NL considered proposed edition 1.0.0 of S-5A together with the Guidelines document. NL wishes to thank the IBSC for their update of the Guidelines following IRCC-8. However, NL votes "BLANK", because Section 3.2 of the Guidelines (edition July 2016) currently is still too ambiguous, in spite of the good efforts of IBSC. In our view, two actions are still necessary to resolve the ambiguity. With reference to the Conclusion in paragraph 6 of document IRCC8-07H5, submitted by IBSC, NL wishes that Section 3.2 explicitly mentions the recommendatory nature of this paragraph. Also, NL would like to see the text of the Conclusion in paragraph 7 of IRCC8-07H5 repeated in Section 3.2 of the Guidelines.

IBSC comment:

a) *Time frames for Category "B" and Category "A" Standards are part of the "Guidelines for the implementation of the Standards of Competence for Hydrographic Surveyors", as stated in subsection 3.2. As part of the guidelines, and not of the Standards S-5A and S-5B, these time frames are offered as recommendations.*

b) *"When Category "B" precedes a Category "A" programme, the submitting institution must demonstrate in their submission that in the total combined training, the student will receive all Category "A" education at the level specified in the S-5A Standards." This sentence will be added in subsection 3.2 of the Guidelines.*

NEW ZEALAND

Vote = YES

New Zealand acknowledges and appreciates the significant efforts of the IBSC and IHB in completing a new edition of S-5A - Standards of Competence for Category "A" Hydrographic Surveyors.

IBSC comment: The Board thanks New Zealand for its support.

SINGAPORE

Vote = YES

We approve the adoption and we note the submission of the proposal from Japan and the subsequent IBSC response to IRCC as below: In their response, IBSC stated that:

a) *"Time frames for Category "B" and Category "A" Standards are part of the "Guidelines for the implementation of the Standards of Competence for Hydrographic Surveyors", and are therefore given as recommendation."*

b) *"... in case where a Category "A" programme is preceded prior by a Category "B" programme, then the time frames for the Category "A" programme may take into account the time devoted to the Category "B" programme."*

c) *"When Category "B" precedes a Category "A" programme, the submitting institution must demonstrate in their submission that in the total combined training, the student will receive all Category "A" education at the level specified in the S-5A Standards."*

IBSC comments: The Board thanks Singapore for its support. Sentence c) will be added to subsection 3.2 of the guidelines (see comments to the response from the Netherlands)

SWEDEN

Vote = YES

Sweden would like to thank the members of the FIG/IHO/ICA International Board on Standards for Hydrographic Surveyors and Nautical Cartographers (IBSC) for their efforts in drafting this new edition. Sweden has reviewed the edition 1.0.0 and has no further comments to add and approves the standard.

IBSC comment: The Board thanks Sweden for its support.