

Developing New Standards of Competence for Hydrographic Surveyors and Nautical Cartographers

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Towards New Standards of Competence

- Who sets the Standards?
- Membership of the Standards Board
- A future environment for Standards
- Conclusions



The FIG/IHO/ICA International Board

- There are 10 members of the International Board for the Standards of Competence of Hydrographic Surveyors and Nautical Cartographers "the Board"
- The Board represents the 3 sponsoring organisations, FIG, IHO and ICA of which 4 are each from IHO and FIG and 2 from ICA.
- Members are from civil, governmental, and educational sectors and have a wide spectrum of knowledge and experience in education, hydrography, and nautical cartography.
- The members are from different geographical areas.
- The Board meets annually.



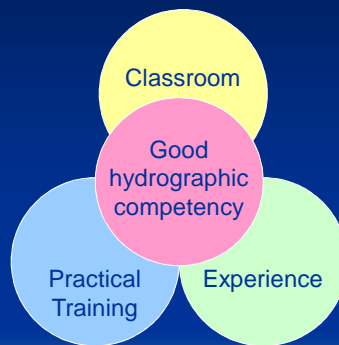
The Work of the Board

- Establish and maintain the minimum standards of competence described in S-5 and S-8.
- Maintain publications (S-5, S-8, S-6, S-47)
- Review syllabi and provide advice on syllabi at the Category A or B level
- Review procedures on submission of syllabi
- Review ongoing Competency Assessment Schemes
- Inform the sponsoring organisations of its work.



Recognised Courses are Balanced

The Standards need to reflect an up to date set of requirements as well offering a basis for a surveyor to make progress



The Standards must maintain the balance for students and their employers whilst allowing for the new digital learning experience

The Standards of Competence

- Establishes requirements for educational programs for hydrographers and nautical cartographers
- Describe competencies that students should master in terms of a learning outcome.

Uses Bloom's Taxonomy

- Considered by the Board as minimum Standards
- The syllabus content is described but NOT how to deliver, or what time should be spent or how to manage the training course.



The Standards of Competence

- The Standards S-5 & S-8 are aimed at ensuring academic or training courses produce suitably qualified individuals. It comprises of:
 - 3 Knowledge Levels: Fundamental, Practical & Detailed
 - 2 Groups of Subjects: Basic & Essential
- Educational and training programs levels are:
 - Category A
 - Category B

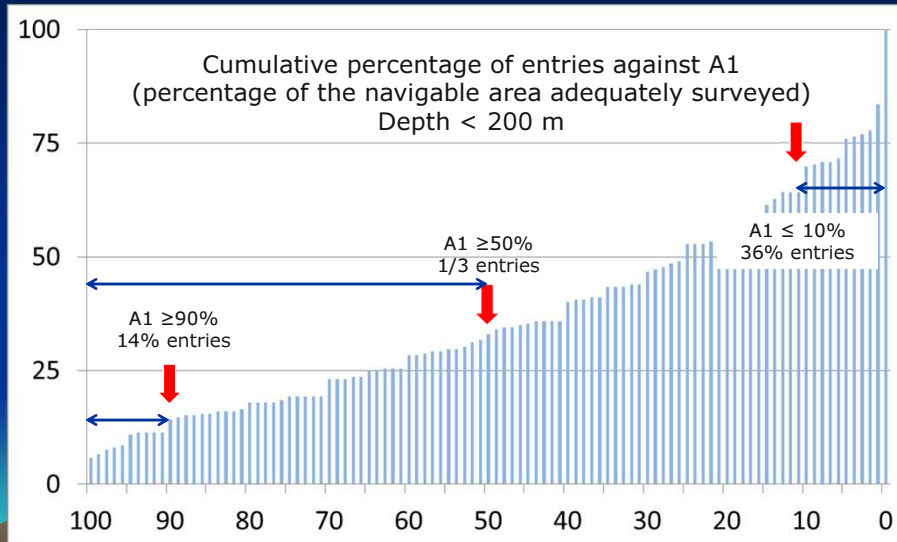


The Standards of Competence

- Updates and Maintains the Standards
 - S-5 Hydrography & S-8 Nautical Cartography
- http://www.iho-ohi.net/iho_pubs/IHO_Download.htm



Status of Survey Coverage: IHO C-55



The Training Landscape

- In the Arctic there is NO recognised course (except for 3 in USA).



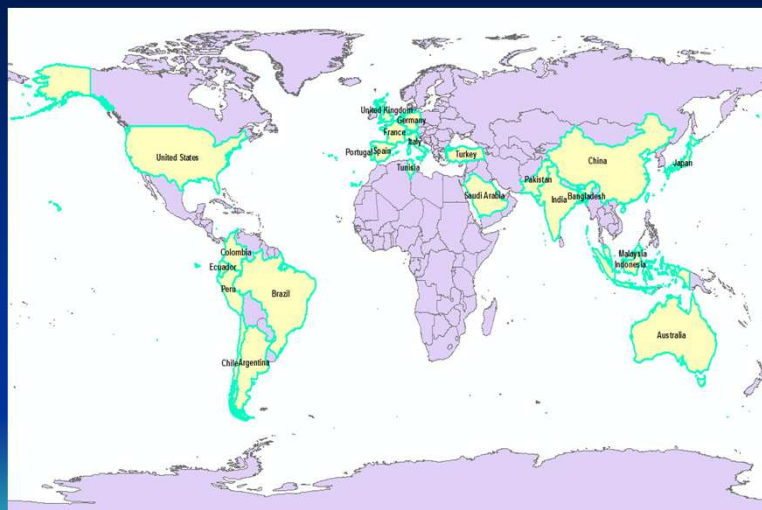
- The whole of Africa only has the Category B course in Tunisia.

What are the developments?

- The Board wishes to develop the Standards.....
- We have started a **significant update** of the S-5 and S-8 Standards with the **revision** aiming for major new editions in 2013-14.
 - The creation of a separate Category A and B syllabus
 - Modules rather than courses
 - Learning methods and techniques
 - Learning outcomes updated: “**Constructive alignment**”
- The work to develop new Standards will involve consultation with industry and our sponsor organisations to progress appropriate Standards.



Status of Recognised Training



Effective Education

- **Partnering with software & equipment providers as well as survey companies & organizations**
 - Important to bring hardware and software into the curriculum and access up to date knowledge and experience
 - Investment in a future *sustained* capacity through people



In Conclusion

- I wish to acknowledge the support of IHO, FIG & ICA.
- The Standards now include systems to recognise the programmes that assess the competency of Individuals. We need more of these.
- New Standards shall be developed in consultation
- You are invited to contribute especially with regard to new learning methods and the trend for modules.
- Many parts of the world still lack access to qualified surveyors so the work of the Board must continue.



