

**REPORT OF THE 33rd MEETING OF THE FIG/IHO/ICA
INTERNATIONAL BOARD ON STANDARDS OF COMPETENCE
FOR HYDROGRAPHIC SURVEYORS AND NAUTICAL CARTOGRAPHERS**

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**REPORT OF THE 33rd MEETING OF THE FIG/IHO/ICA
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1. Venue and attendance

The 33rd meeting of the FIG/IHO/ICA International Board was held from 1st to 5 March 2010 at the Hotel Normandie, Port of Spain, Trinidad, hosted by Mr. David Neale (FIG).

The following were present:

Mr. Johnston (Chairman) (FIG)
Dr. Tsoulos (Vice-Chairman) (ICA)
Dr. Surace (Vice-Chairman) (IHO)

FIG Members	IHO Members	ICA Members
Dr. Mahmud	Capt. Armstrong	Mr. Furness
Mr. Neale	Cdre. Nair	
Mr Greenland	Dr. Egge	

Cdre. Nair (IHO) and Capt. Bermejo apologised for not being able to attend the meeting.

2. Opening of the meeting Agenda and Administrative Arrangements

The Chairman opened the meeting and welcomed the Board members to Trinidad and invited Mr. David Neal (Trinidad & Tobago, FIG), the host, to outline the plans for the visitors, Board members and partners over the duration of the meeting.

The Chair expressed the sympathy of the Board to the representatives from Chile with regard to the recent tragedy caused by the earthquake in Chile.

The Agenda was adopted, including some new topics for discussion

The minutes of the 32nd meeting were reviewed and agreed.

The actions from the 32nd meeting were reviewed and agreed including the letters to the successful and re-submitting institutions.

3. Reception for VIPs at the Hotel Normandie

The Board was received, at the Hotel Normandie, by the meeting host, Mr. Neale who welcomed the Board and introduced the guests including

The Chairman thanked Mr. Neale, Professor Opadeyi, head of the Dept. of Geomatics , University of West Indies, Cmdr Franklin, CEO , Institute of Marine Affairs, Trinidad & Tobago and Dr. Sutherland, FIG Commission 4 chair-elect for their words of encouragement and welcome. In addition Mr Raymond, President of the Institute of Surveyors, Mr. Bowles, Director of Surveys and Ms Balkaransing, Manager at BPTT, were in attendance and a social lunch followed.

4. Chairman's Report

The Chairman tabled a report of the main activities carried out after the 32nd meeting, addressing the following main subjects:

Since the last Board meeting the update to M-8 is completed and essentially ready for issue. The update & review to M-5 – including the Individual Recognition Competency Schemes has been difficult but is now nearing completion, expected at this meeting.

The Chair attended the 2009 IHO Extraordinary Conference & reported to the first IRCC meeting, tabling several proposals regarding the Board's name change, inclusion of Individual Recognition into the Standards and greater collaboration between the parent bodies. Members fortunate to attend the FIG Israel Working Week meeting were able to attend the FIG Commission 4 Annual Meeting where a written report was submitted by the Chair regarding the work of the Board.

The Chair visited ENSIETA during September 2009 and took part in the M.Sc. viva Panel review of student submissions.

A steady flow of clarification questions with regards to re-submissions & notifications of new course submissions have been dealt with. Courses proposing to submit in the next 2011 or 2012 include – Singapore, France Cat B for Cartography, Canada, Turkey and possibly Vietnam.

During the year a key presentation was made by Captain Armstrong at Hydro'09 Cape Town. The Chair presented to the FIG regional conference in Hanoi.

Looking forward the next few months, the next major event is the FIG Congress in Sydney Australia during April 2010 at which it is hoped the FIG publication entitled "The Economic benefits of Hydrography" will be confirmed as a web publication for later in the year.

5. Inter-sessional activities

The Chair informed the members about the following items:

5.1. The lack of response from the Hong Kong recognized course was disappointing but some correspondence had been received, indicating that a re-organisation of the resources had required the Hong Kong Polytechnic to delay submission for a year.

5.2. The continued delay of the Argentinean Hydrographic School for the submission of its Course in Hydrography, due to a major re-organization of the Service, has now exceeded the additional time the Board had granted for recognition.

These matters would require to be discussed in the meeting

In a more positive sense there were a number of new candidates for courses from institutions. Encouragement to these organizations it is hoped, will prove positive in their subsequent submissions.

6. Pending actions

Following the information provided about the courses delaying their submissions, the Board reviewed each of the cases. Argentina had requested a further extension however the Board decided this was not possible and to notify Argentina of the cancellation of the recognition awarded to the Argentinean Course in Hydrography. A letter will be sent to confirm this. A letter from Hong Kong requested an extension and the Board decided to grant a one year extension to enable the Polytechnic to organize its resources. A letter confirming this decision will be sent to the Hong Kong Polytechnic.

During the inter-sessional period it was established that the course previously submitted by the Port of Bordeaux and due for re-submission is no longer offered. It will be removed from the Course list.

A letter outlining the Board's plan to source funding for its work has been generated and is in the process of being issued to institutions. Further discussion on the funding of the Board would take place at this meeting.

7. Review of courses

The Board was grateful to Dr. Schenke (TECHAWI, Germany), (First Lieutenants ZUNIGA and DIAZ, Chile), Dr. Iliffe and Mr. Pender (University College London & Port of London Authority, UK) and Captains

Cavalheiro and Sanderson, Brasil), who attended the meeting, gave presentations of their institutions and helped the Board to clarify some aspects of their programmes, responding to the questions of the Board members about different topics.

COURSE	DECISION
Specialization Course in Hydrography of the Chilean Hydrographic and Oceanographic Service.	RECOGNISED
MSC in Hydrographic Surveying of the University College of London/ Port of London Authority	RECOGNISED
LSGI Hydrographic post-graduated Diploma of the Polytechnic University of Hong-Kong	DELAYED
L'Ecole Nationale Supérieure des Ingénieurs des Etudes et Techniques d'Armement (ENSIETA) of the "SHOM" France.	RECOGNISED
Port Hydrography Course of Bordeaux University, France.	REMOVED
Course in Hydrography for Naval Officers of the Argentine Navy	REMOVED
Course Programme in Hydrography at TECHAWI	RECOGNISED
Course Programme in Geomatics and Hydrography of the HafenCity University of Applied Sciences	RE-RECOGNISED
Course in Hydrography for Naval Officers of Brazilian Navy, Brazil.	RE-RECOGNISED at Cat. A.
Course in Hydrography of Brazilian Navy. Brazil. Cat B.	RECOGNISED

8. Future recognitions and re-recognitions

The Chairman reminded the Board that the several courses and new submissions were expected in 2011. The following re-submissions must be received, in accordance with the schedule approved:

COURSE	Last recognition	Years recognized
LSGI Hydrographic post-graduated Diploma of the Polytechnic University of Hong-Kong	2001	9
International Hydrographic Management and Engineering Program of the Naval Oceanographic Office (USA)	1999	12
Joint International Hydro-graphic Applied Science Program of the University of Southern Mississippi-NAVOCEANO (USA)	2000	11
Graduate Programme in Ocean Mapping of the Joint Hydrographic Center/ University of New Hampshire (UNH) and National Oceanic and Atmospheric Administration (NOAA), USA	2001	10
Hydrographic Surveyors Programme of the Naval Academy of Colombia	2001	10
Advanced Training Course On Hydrography For Officers - Epsom (France)	2003	8
Specialization Course in Hydrography of the Portuguese Naval Hydrographic Institute	2003	8

9. Review of S-5 “Standards of Competence for Hydrographic Surveyors”

The recommendations and findings of Prof. Surace were further considered and it was decided to issue an 11th

revision with amendments to various sections of the Standards together with new elements concerning Individual Recognition. However, it was agreed that a major revision and update would be undertaken at the 34th meeting in the USA in 2011 to create a major update, a 12th edition in 2011.

10. Review of S-8 “Standards of Competence for Nautical Cartographers”

The Board approved a revision of the Standards with the inclusion of the Individual Recognition and other elements, creating a 3rd edition in line with the S-5 Standards.

11. Guidelines for Individual Recognition.

The Board considered text for inclusion in the Standards relating to Guidelines concerning Individuals. After some refinement by the members of the Board, the section was approved with some minor amendments and the text finalised.

12. Funding of the Board. Courses fee.

This important topic was aging on the Board’s agenda to continue the development of a plan to source funds to support, at least in part, the work of the Board. The Board discussed the possible mechanisms of funding via a fee structure and concluded that a way forward was to apply a fee to submissions when they are received. The use of the fees would be restricted to activities directly related to the Board and are in 3 categories:

- 1) Funding Course inspection & site visits
- 2) Supporting some of the Annual Board meeting
- 3) Special travel and expenses on IBSC business.

The Board decided any requests for funds must be submitted 6 months prior to their use and agreed by the funding group which would comprise the Chair, a vice-chair (accounts) and a representative from the 3rd parent organisation as well as the secretary of the Board.

13. Election of Chairman and Vice-Chairs

As in accordance with the terms of the Board, the position of Chair and vice chair is rotated every three years. Accordingly Dr. Tsoulos (ICA) was unanimously elected chair and the first ICA representative to hold the post. Dr. Surace (IHO) senior Vice Chair and Dr. Mohd Razali Mahmud (FIG) vice chair were also approved. It was agreed that the current officers would continue until the end of the calendar year in order to facilitate a hand over of work items and to complete a number of ongoing actions.

14. Any other business

The Chair thanks the host, Mr. Neale for the kindness and hospitality shown to the Board members whilst in Trinidad.

15. Date/Venue of the next meeting

Following an invitation from the University of Southern Mississippi, the 34th IBSC meeting will take place in New Orleans, USA, probably during the last week in May 2011. Confirmation will be sought by the Chairman and secretary at a later date.

16. Close of the meeting

The Chairman closed the meeting at 17:00 on 5 March.

ANNEX I

LIST OF MEMBERS

NAME	Country	ADDRESS	PHONE	FAX/ e-mail
Mr. Gordon JOHNSTON (FIG) – Chairman	U.K.	67 Devon Road Cheam Surrey England, SM2 7PE	(44)(0) 208 661 1650 (44) (0) 7966 937369	gordon.johnston1@orange.net
Dr. Lysandros TSOULOS (ICA) – Vice- Chairman 1	Greece	Professor NTUA Cartography Laboratory National Technical University of Athens 9 H. Polytechniou Zographou 15780 Athens	30 210 7722730 306944472177 (mobile)	30 210 7722734 lysandro@central.ntua.gr
Dr. Luciano SURACE (IHO) – Vice- Chairman 2	Italy	Istituto Idrografico ella Marina Passo Osservatorio 4 16100 Genova	39 010 2443363 328 5470194	39 010 2443364 luciano.surace@libero.it
Capt. Federico BERMEJO (IHB) Secretary	Spain	International Hydrographic Bureau 4 Quai Antoine 1 ^{er} BP 445 MC 98011 Monaco	(377)-93-108107	(377)-93-108140 fbermejo@ihb.mc
Capt. Andy ARMSTRONG (IHO)	USA	University of New Hampshire Joint Hydrographic Center Océan Engineering Lab 24 Colovos Road Durham, NH 03824	1-(603) 862 4559 12406766090 (mobile)	603 862 0839 andy.armstrong@unh.edu andy.armstrong@noaa.gov
Dr. Delf EGGE (IHO)	Germany	Department Geomatik HafenCity Universitaet Hamburg Hebebrandstr. 1 D-22297 Hamburg	(49) (40) 42827 5366	(49) (40) 42827 5399 delf.egge@hcu-hamburg.de
Mr Ron FURNESS (ICA)	Australia	93 Ashworth Avenue Belrose 2085.	61 2 9451-9003 61 405 576 196 (mobile)	61 2 9975-3169 rfurness@ozemail.com.au
Mr. Adam GREENLAND (FIG)	New Zealand		DD +64 4 460 0136 Fax +64 4 460 0575 Mob 027 279 8243	agreenland@linz.govt.nz
Dr. Mohd Razali MAHMUD (FIG)	Malaysia	Faculty of Geoinformation Science & Engineering University Teknologi Malaysia 81310 UTM Skudai Johor Darul Takzim	6075530827 60197291109	607 5530827 razalimahmud@utm.my razali.mahmud@gmail.com
Cdre. K.M. NAIR (IHO)	India	National Hydrographic Office 107-17 Rajpur Road Post Box 75 Dehra Dun	+918322582800	+918322585293 km.nair.km@gmail.com
Mr. David NEALE	Trinidad	LANE Associates Unit G	8686284302	8686285017

(FIG)	& Tobago	Humphrey's Street The Film Centre St. James Trinidad West Indies		david.neale@caneassociates.com
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ANNEX II

COURSES TO REVIEW IN 2011

COURSE	Last recognition	Years recognized
International Hydrographic Management and Engineering Program of the Naval Oceanographic Office (USA)	1999	12
Joint International Hydro-graphic Applied Science Program of the University of Southern Mississippi-NAVOCEANO (USA)	2000	11
Graduate Programme in Ocean Mapping of the Joint Hydrographic Center/ University of New Hampshire (UNH) and National Oceanic and Atmospheric Administration (NOAA), USA	2001	10
Hydrographic Surveyors Programme of the Naval Academy of Colombia	2001	10
Advanced Training Course On Hydrography F-r Officers - Epshom (France)	2003	8
Specialization Course in Hydrography of the Portuguese Naval Hydrographic Institute	2003	8

COURSES TO REVIEW IN 2012

COURSE	Last recognition	Years recognized
Programme for Bachelor of Engineering Degree in Hydrography of the Dalian Naval Academy (DNA) of China.	2003	9
UK Royal Navy HM2 Course.	2003	9
Programme For National Diploma In Hydrography of The Dalian Naval Academy (DNA) of China	2003	9
Intermediate Hydrography and Oceanography Course of the Hydrographic Institute of Portugal.	2004	8
Course in Hydrography for Naval Officers of Peruvian Navy	2004	8
Specialization Course of the Spanish Hydrographic Institute.	2005	7
Basic Hydrographic Course of the Bangladesh Navy	2005	7

COURSES TO REVIEW IN 2013

COURSE	Last recognition	Years recognized
Course in Hydrography for Naval Officers of Indonesian Navy (SEHIDRAL)	2006	7
Cat A Hydrographic Specialist Course of the Indian National Hydrographic School, Goa, India	2006	7
Cat B (Free) Course In Hydrography. Goa, India	2006	7

Course in Hydrography (HYDRO I) of the University Teknologi Malaysia.	2007	6
Programme in Hydrography of Maritien Instituut Willem Barentsz Amsterdam.	2007	6
Ocean Science Course of the Japanese Coast Guard School	2007	6
Course in Hydrography for Petty Officers of the Spanish Hydrographic Institute	2007	6
“Patent Superior Technician in Hydrography” of the Tunisian H.O.	2007	6

ANNEX III

LIST OF RECOGNIZED COURSES HYDROGRAPHY – MAY 2010

Year Last recogn./ Edition	COURSE	Cat	Options	Language	Next Rec.
1999 - 8th	International Hydrographic Management and Engineering Program of the Naval Oceanographic Office (USA)	B	Op. 1	English	2011
2000 - 8th	Joint International Hydro-graphic Applied Science Program of the University of Southern Mississippi-NAVOCEANO (USA)	A	Op. 1, 5	English	2011
2010 - 10th	Specialization Course in Hydrography of the Chilean Hydrographic and Oceanographic Service.	A	Op. 1,2	Spanish	2016
2001 - 8 th	Hydrographic Surveyors Programme of the Naval Academy of Colombia	A	Op. 1	Spanish	2011
2010 - 10 th	MSC in Hydrographic Surveying of the University College of London/ Port of London Authority	A	Op. 1,2	English	2016
2001 - 8 th	Graduate Programme in Ocean Mapping of the Joint Hydrographic Center/ University of New Hampshire (UNH) and National Oceanic and Atmospheric Administration (NOAA), USA	A	-	English	2011
2001 - 8 th	LSGI Hydrographic post-graduated Diploma of the Polytechnic University of Hong-Kong	A	-	English	2010
2010 - 10th	Course Programme in Geomatics and Hydrography of the HafenCity Universitat	A	Op. 1	German (Dipl-Ing.), English Master)	2016
2010- 10th	L'Ecole Nationale Supérieure des Ingénieurs des Etudes et Techniques d'Armement (ENSIETA) of the "SHOM" France.	A	Op. 1, 5	French	2016
2003 - 9 th	Specialization Course in Hydrography of the Portuguese Naval Hydrographic Institute	A	Op. 1, 2	Portuguese	2011
2003 - 9th	Advanced Training Course On Hydrography For Officers – EPSHOM (France)	B	-	French	2011
2003 - 9th	Programme for Bachelor of Engineering Degree in Hydrography of the Dalian Naval Academy (DNA) of China.	B	Op 1, 2, 3, 4, 5, 6 7	Chinese/ English	2012
2003 - 9th	UK Royal Navy HM2 Course.	B	Op. 6	English	2012
2003 - 9th	Programme For National Diploma In Hydrography of The Dalian Naval Academy (DNA) of China	B	Op 1, 2, 3, 4, 5, 6	Chinese/ English	2012
2004 - 9th	Intermediate Hydrography and Oceanography Course of the Hydrographic Institute of Portugal.	B	Op. 1, 2	Portuguese	2012
2004 - 9th	Course in Hydrography for Naval Officers of Peruvian Navy	B	Op. 1, 2, 5, 7	Spanish	2012
2005 - 9th	Specialization Course of the Spanish Hydrographic Institute.	A	Op. 1, 6	Spanish	2013
2005 - 9th	Basic Hydrographic Course of the Bangladesh Navy	B		English	2012
2006 - 9th	Course in Hydrography for Naval Officers of Indonesian Navy (SEHIDRAL)	B	Op. 1, 2	Bahasa Indonesia	2013

2006 - 9th	Hydrographic Specialist Course of the Indian National Hydrographic School, Goa	A	Op. 1, 2, 3, 4	English	2013
2006 -9 th	“Free” Course in Hydrography of the National Hydrographic School, Goa, India	B	Op. 1, 2, 3, 5	English	2013
2007– 9th	Course in Hydrography (HYDRO I) of the University Teknologi Malaysia.	B	Op. 2, 7	English	2013
2007– 9th	Programme in Hydrography of Maritien Instituut Willem Barentsz Amsterdam.	A	Op 2,4,7.	Dutch	2013
2007– 9th	Ocean Science Course of the Japanese Coast Guard School.	B	Op. 1	Japanese	2013
2007– 9th	Course in Hydrography for Petty Officers of the Spanish Hydrographic Institute	B	Op. 1, 6.	Spanish	2013
2007– 9th	“Patent Superior Technician in Hydrography” of the Tunisian H.O.	B	Op. 1	French	2013
2008 - 9th	Specialization Course of the Italian Hydrographic Institute.	A	Sp. 1	Italian	2014
2008 - 7 th	Group Training Course in Information Management for Maritime Activity and Disaster Prevention (JCG and JICA, Japan)	B		English	2014
2008– 9th	Course in Hydrography from the University of Technology of Malaysia (UTM)	A	Op. 2, 7	English	2014
2008 - 9 th	Advanced Course in Hydrography of the Japanese Coast Guard Academy, Japan.	A	Op. 1	Japanese	2014
2008– 9th	Course Programme in Hydrography from Skilltrade – STC (Netherlands)	B		English	2014
2008 - 9th	Hydrographic Education Programme of the University of Otago (New Zealand)	A		English	2014
2009 - 9th	Royal Australian Navy H2 Hydrographic Surveying Course	B	Op. 1,6	English	2015
2009 - 9 th	Course in Hydrography for Navy Officers. INOCAR, Ecuador.	B	Op. 1	Spanish	2015
2009 - 9 th	Intermediate Course for Navy Officers and Civilians. Italian H.O, Italy	B		Italian	2015
2009 - 9 th	Hydrographic Survey for production of nautical charts. H.O. Pakistan.	B		English	2015
2009– 9th	Hydrographic Course at the Royal Naval (UK) Hydrographic School, HMS Drake.	A	Op. 1,6	English	2015
2009 - 9th	Applied Hydrographic Education Certificate Programme. Middle East Technical University (METU), Turkey.	B	Op. 1,2,7		2015
2009 - 9th	Course in Hydrography for Naval Officers of Brazilian Navy.	A	Op. 1,2,3,5,6 & 7	Portuguese	2016
2009 - 9th	Msc Course in Hydrographic Surveying of the University of Plymouth , U.K.	A	Op. 1	English	2015
2009 – 9th	Bsc (Honours) Ocean Exploration. University of Plymouth, UK.	A			2015
2010 – 10th	Course in Hydrography of Brazilian Navy Category B.	B			2016
2010 – 10th	Course Programme in Hydrography at TECHAWI	B		English	2016

LIST OF COURSES HAVING LOST RECOGNITION

Year recognized				
1994 - 6th	Course in Hydrography. International Maritime Academy of Trieste, Italy. CANCELLED	B	Sp. 1	English
1996 - 7th	Course in Hydrographic surveying of the Department of Geometrics & Geomatics of the University of Melbourne (Australia)	A	Sp. 1	English
1997 - 7th	Course in Hydrography of the “Academy Admiral Makarov, Russia”.	A	Sp. 1, 2 ,3	Russian
1999 - 7 th	Course in Hydrography of the St. Petersburg Naval Academy (Russia).	A	Sp. 1	Russian
2000 - 8th	Harbour and Coastal Management addressed to Harbour and Coastal Surveyors of the International Maritime Academy (IMA), Trieste.	B	Op. 2	English
2005 - 1st	Model Course in Nautical Cartography of the International Maritime Academy, Trieste (Italy)	A		English
1996 – 7th	Course in Hydrography for Naval Officers of the Argentine Navy.	B	Op. 1	Spanish

LIST OF RECOGNIZED COURSES CARTOGRAPHY – MAY 2010

Year Last recogn./ Edition	<u>COURSE</u>	Cat	Options	Language	Next Rec.
2004 - 1st	1. Programme for Bachelor of Engineering Degree in Nautical Cartography from the Dalian Naval Academy (DNA) of China	A		Chinese/ English	2014
2005 – 1st	2. UKHO Hydrographic Data Processing and Marine Cartography Programme	B		English	2015