

IHB File No. TA-006

**CIRCULAR LETTER 9/2004
4 February 2004**

**COURSE ON «HARBOUR AND COASTAL HYDROGRAPHY»
AT THE INTERNATIONAL MARITIME ACADEMY (IMA),
TRIESTE, ITALY.
(16 June - 19 November 2004)**

Dear Hydrographer,

The International Maritime Academy (IMA) in Trieste has informed the IHB, on behalf of the Italian Authorities, that the fifth edition of the course on «Harbour and Coastal Hydrography» has been scheduled in 2004.

The course received recognition at Category B Level, option 2 against the 8th edition of the Standards of Competence approved by the FIG/IHO/ICA International Advisory Board.

A module on «Hydrographic Data Management» has been added to this standard course, thus the students will be trained in the modern management of hydrographic and cartographic data.

The course will start on 16 June 2004 and will end on 19 November 2004.

The course is intended for twelve students from all countries. Government authorities responsible for Hydrography in each country are requested to forward their candidates' applications to the :

International Maritime Academy (IMA)
via Eduardo Weiss 15
34127 Trieste, Italy
Telephone: +39 040 350829
Fax: +39 040 350322
E-mail imoima@imoima.org

through the ITALIAN EMBASSY in their country, with a copy to:

International Hydrographic Bureau
4 Quai Antoine 1er
B.P. 445 - MC 98011 Monaco CEDEX
Principality of Monaco
Telephone: (+377) 93108100
Fax: (+377) 93108140
E-mail: info@ihb.mc

Nominations not sent through the Italian Embassies, will not be accepted, and therefore will not be taken into consideration for the selection. **Nominations must reach the IMA by 15 April 2004 at the latest.**

The support provided by IMA will cover travel expenses, local transport in Trieste, accommodation and food. **Money for other personal expenses (pocket money) must be provided by each STUDENT'S NATIONAL AUTHORITY. (See Annex 2).**

The course is of great importance for its objectives, its duration and technical content.

It is hoped that the hydrographic community, and, in particular, the European Hydrographic Services are available and willing to give their support to IMA in terms of lecturers, on the basis of the requests which IMA will address directly to each country.

Information on the course programme and logistics are provided in Annex 2. A copy of the Nomination Form is also attached (Annex 3).

On behalf of the Directing Committee
Yours sincerely,

(original signed)

Captain Hugo GORZIGLIA
Director

Annex 1 -	Distribution List	
Annex 2 -	Course Details & Logistics	(in English only)
Annex 3 -	Nomination Form for Participation & Acceptance Form	(in English only)

DISTRIBUTION LIST

- All IHO Member States including suspended MS.
- Selected Non-IHO Member States (including IHO pending Member States*) :
Albania, Bolivia, Brunei Darussalam, Bulgaria*, Cameroon, Costa Rica, El Salvador, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Guyana, Honduras, Ireland, Israel, Jordan, Kenya, Latvia*, Lithuania, Madagascar, Malawi, Malta, Mauritania*, Mauritius*, Namibia, Nicaragua, Panama, Qatar*, Romania*, Saudi Arabia*, Samoa, Tanzania, Togo, Viet Nam.
- Mr. David Edwards, Technical Co-operation Division, International Maritime Organization, 4 Albert Embankment, London SE1 7SR, UK.
- Mr. W. De Ruyter, Head of Division, EC DG TEN, European Commission, 200, Rue de la Loi, Brussels, Belgium.
- Mr. Roberto Salvarani, Head of Unit for Information and Communication, European Commission Directorate General-Energy and Transport, 200, Rue de la Loi, Brussels, Belgium.
- International Maritime Academy, Trieste, Italy.
- Italian Ministry of Foreign Affairs, Directorate General for Cooperation to Development, Piazzale della Farnesina 1, Rome, Italy.
- Dr. Riccardo Illy, President of the Regional Council, Via Carducci 6, 34133 Trieste, Italy.
- Friuli-Venezia Giulia Region, Assessore Regionale ai Trasporti, via Giulia 75/1, 34125 Trieste, Italy.
- President of the Province of Trieste, Piazza Vittorio Veneto 4, 34132 Trieste, Italy.
- President of Trieste Port Authority, Punto Franco Vecchio, 34135 Trieste, Italy.
- University of Trieste – Magnifico Rettore, Piazzale Europa 1 (Rettorato), 34100 Trieste, Italy.
- President of Trieste Chamber of Commerce, Piazza della Borsa 14, 34100 Trieste, Italy.

DETAILS OF THE COURSE

Course Aim and prospective users

The course is designed to address the needs of the Authorities which require personnel specialized in harbour and coastal surveys, capable of performing the following:

- bathymetric surveying and underwater researches
- topographic and geodetic surveying in coastal areas
- tidal measurements and establish Tidal Datum
- follow the natural evolution of the coasts
- follow the coastal processes of siltation and erosion
- assist maritime works and marine geologists with the necessary bathymetric, oceanographic and topographic surveying
- assist oceanographers in the collection of oceanographic samples and measurements
- control dredging operations
- implement suitable maritime signals
- update nautical charts and publications pertaining to coastal and harbour areas and disseminate any amendment relevant to the safety of navigation
- organize a coastal hydrographic operative unit

Attendees (entry standards)

The course is open to personnel coming from Authorities responsible for the managing of coastal areas and for the functioning of the ports.

Applicants must hold at least a Higher School Certificate and have good knowledge of the English language, spoken and written.

Number of participants

In order to ensure the maximum efficacy, the course should not be attended by more than 12 trainees.

Language

The course will be conducted in the English language.

Course Certificate, diploma

The Certificate of Level B Hydrographic Surveyor will be awarded to the students who present documentation demonstrating completion of at least 24 months of supervised Hydrographic activity.

Upon successful completion of the course, a document will be issued by IMA certifying that the holder has successfully completed the course.

COURSE OUTLINE

The duration of the course will be 22 weeks. Lessons will be, generally, 7 hours per day, from Monday to Friday, for a total number of 772 hours.

The course has been subdivided into the following 8 modules.

Every module contains specific segments which are developed taking into consideration the requirement of the course and the time allocated.

The program includes complementary activities such as technical visits to Port Services and final tests.

<i>Modules</i>	<i>Hours</i>
GENERAL INTRODUCTION.....	4
1. Basics	76
1.1 Mathematics and Statistics.....	18
1.2. Physics and Applied Physics.....	31
1.2 Computers.....	27
2. Surveying.....	301
2.1 Geodesy	49
2.2 Horizontal and Vertical Control	35
2.3 Positioning	42
2.4 Cartography	35
2.5 Computer assisted Cartography	28
2.6 Photogrammetry and air Photogrammetry	10
2.7 Preparation Surveys.....	21
2.8 Bathymetry.....	42
2.9 Tides and Water levels	11
2.10 Survey boats and equipment.....	14
2.11 Automated survey systems	14
3. Field Practice	128
3.1 Planning, execution, processing of harbour and coastal surveying practical project, comprehensive of land and sea surveying	
4. Environmental Sciences.....	74
4.1 Meteorology.....	14
4.2 Coastal oceanography	28
4.3 Waves, beaches and maritime structures	14
4.4 Marine geology and sedimentology....	18
5. Nautical sciences	31
5.1 Aids to navigation in coastal waters	7
5.2 VTS and VTMS.....	7
5.3 Information to Mariners.....	17
5.4 Electronic Cartography	16
6. Legal aspects	21
6.1 Law of the Sea.....	7
6.2 Delimitation lines	14
7. Specialism Subjects.....	84
7.1 Dredgers and dredging operations	12
7.2 Obstruction surveys.....	21
7.3 Marine information systems.....	16
7.4 Port Hydrographic Unit Project	35
8. Hydrographic Data Management.....	35

LOGISTICS

Accommodation: Twin-bedded rooms (two students per room) for the entire period of the course.

Food arrangements: breakfast, lunch and dinner will be provided by IMA.

Health and accident insurance will be provided.

Pocket money and other personal expenses will be at the charge of the organization to which the student belongs.

Assistance in obtaining a visa may be provided by IMA, but should be the responsibility of the national organization.

Prepaid air tickets will be made available at a selected air company (will be communicated by IMA) in the country.

Note: The air ticket will have to be refunded in case of non-completion of the course.

**COURSE ON HARBOUR AND COASTAL HYDROGRAPHY
(16 June - 19 November 2004)**

NOMINATION FORM FOR PARTICIPATION

A completed nomination form should be submitted to the Director of the International Maritime Academy,* Trieste, Italy **THROUGH THE ITALIAN EMBASSY ****, with a copy to the IHB Monaco***. Nominations should be made as early as possible, using a separate form for each nomination, indicating clearly the Government's priority if more than one participant is nominated:

1. FAMILY NAME
- FIRST NAME
- OTHER NAME.....
2. Mailing address.....
-
-
- Telephone.....
- Fax.....
- E-Mail
3. Nearest airport where air travel will commence and terminate:
Name of airport.....
- Location.....
4. Date of birth.....
5. Sex: Male Female
6. Place of birth.....
7. Nationality
8. Passport No.
9. Date and Place of Issue

* International Maritime Academy, via Eduardo Weiss 15, 34127 Trieste, Italy.

(Fax: +39 040 350322. E-mail: <imoima@imoima.org>)

**** The nominations not transmitted through the Italian Embassy will not be accepted and taken into consideration.**

*** International Hydrographic Bureau, BP445, MC 98011 MONACO CEDEX, Principality of Monaco.

(Fax: +377 93 10 81 40; E-mail: <info@ihb.mc>)

10. Person to notify in case of emergency:

Name

Address

.....

Telephone.....

Fax.....

E-Mail

11. Present position and description of duties

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12. Educational background.....

.....

.....

13. Previous experience.....

.....

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Nominee's signature

The above-mentioned person is nominated as our first/second possible participant in the course.

Name and signature of **Government official** authenticating this nomination.....

Title

ACCEPTANCE FORM

I hereby accept the invitation of the International Maritime Academy (IMA) to participate in the Course on Harbour and Coastal Hydrography (16 June - 19 November 2004).

I confirm that:

1. I will refrain from engaging in political, commercial and any activities other than those governed by the course programme;
2. I will advise the Academy immediately if I am unable to attend the course; and
3. I will travel to Trieste, Italy and return to my home country at the end of the course, as appropriate, by the route designated by the Academy.

Signature of Participant

Name of Participant
(Printed)

Address

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Date.....