

**IHB File No. TA-006**

**CIRCULAR LETTER 4/2001  
19 January 2001**

**COURSE ON "HARBOUR AND COASTAL HYDROGRAPHY"  
AT THE INTERNATIONAL MARITIME ACADEMY (IMA),  
TRIESTE, ITALY  
(14 May -10 November 2001)**

Dear Sir,

The International Maritime Academy (IMA) in Trieste has informed the IHB, on behalf of the Italian Authorities, that a course on "Harbour and Coastal Hydrography" has been scheduled in 2001. This course is the second edition of the previous course (1999) "Port and Coastal Hydrography" in which more time is devoted to Coastal Management.

The course has received recognition at Category B Level, option 2 as laid down in the 8<sup>th</sup> edition of the Standards by the FIG/IHO International Advisory Board.

The module "Hydrographic Data Management" (1 month) has been added to this standard course, and so the students will be trained in the modern management of hydrographic and cartographic data.

The course will start on 14 May 2001 and will end on 10 November 2001.

The course is designed for twelve students from all countries. Government authorities responsible for Hydrography are requested to forward their candidates' applications to the International Maritime Academy (IMA) via Eduardo Weiss 15 34127 Trieste, Italy (Telephone: +39 040 350820 Fax: +39 040 350322

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,

Rear Admiral Giuseppe ANGRISANO  
President

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 GUATEMALA)
  
- BANGLADESH
- BULGARIA
- COSTA RICA
- EL SALVADOR
- HONDURAS
- ISRAEL
- KENYA
- NAMIBIA
- NICARAGUA
- PALESTINIAN AUTHORITY
- PANAMA (Servicio Marítimo Nacional, Instituto Geográfico Nacional  
Tommy Guardia, Autoridad del Canal de Panamá)
- SAUDI ARABIA
- TANZANIA
- UGANDA
- YEMEN
  
- EC DGIB Meda Projects – Mr. Lauren,
- EC DGVII Maritime Transport – Head of Division Mr. W. De Ruiter.
  
- International Maritime Academy, Trieste, Italy.
  
- Italian Ministry of Foreign Affairs, Directorate General for Cooperation to  
Development, Rome, Italy.
  
- Italian Ministry of Foreign Affairs DGCS Ufficio XIII, viale Tiziano 80 – Rome, Italy
  
- Friuli-Venezia Giulia Region, Assessore Regionale ai Trasporti – Avv. W. Santarossa,  
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.

## DETAILS OF THE COURSE

### Background

#### ▪ Requirements for the Course

The course on Harbour and Coastal Hydrography is aimed at Harbour and Coastal Surveyors working for Services and Bodies responsible for coastal and port areas management, whose objectives are:

- the safeguard of the environment
- the promotion of the safety of coastal navigation and the prevention and monitoring of marine pollution
- the development of maritime transport through the knowledge and the modern management of the port basins and their access.

The above-mentioned activities are generally carried out by Government Technical Services and/or local authorities responsible for the management of the coastal areas and the Harbour Masters Offices or Ports. The Surveyors of the technical services do not always receive adequate training according to the International Standards, which can harm the efficiency of the Services.

Looking at the range of possibilities mentioned above, it is evident that such Harbour and Coastal Surveyors must be highly specialized in order to satisfy the different requirements for correct port functioning together with the capacity of assisting engineers, geologists, physicists, oceanographers, biologists etc, in the planning and execution of coastal operations.

Therefore, the course intends to train such personnel, in the application of the latest techniques and equipment and following the guidelines of the (FIG-IHO) International Standard of Competence for Surveyors.

#### **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 establishing 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

**Attendees (entry standards)**

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

Applicants must hold at least a Higher School Certificate and have a 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 held in the English language.

**Course Certificate, diploma**

The syllabus is based on the Standards of Competence for Surveyors Category B Level, as defined by the FIG/IHO Advisory Board.

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 6 months (26 weeks). Lessons will be, generally, 7 hours per day, from Monday to Friday, for a total number of 892 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 visits to Port Services (dredging works, buoyage pilotage, operative offices and VTS) and final tests.

<i>Modules</i>	<i>Hours</i>
<b>GENERAL INTRODUCTION .....</b>	<b>4</b>
<b>1. Basics .....</b>	<b>72</b>
1.1 Mathematics and Statistics .....	16
1.2. Physics and Applied Physics .....	26
1.2 Computers .....	30
<b>2. Surveying.....</b>	<b>260</b>
2.1 Geodesy.....	36
2.2 Horizontal and Vertical Control .....	48
2.3 Positioning .....	26
2.4 Cartography .....	24
2.5 Computer assisted Cartography.....	12
2.6 Photogrammetry and air Photogrammetry .	10
2.7 Preparation Surveys.....	20
2.8 Bathymetry .....	40
2.9 Tides and Water levels .....	12
2.10 Survey boats and equipments .....	12
2.11 Automated survey systems .....	20
<b>3. Field Practice .....</b>	<b>160</b>
3.1 Planning, execution, processing of harbour and coastal surveying practical project, comprehensive of land and sea surveying	
<b>4. Environmental Sciences.....</b>	<b>68</b>
4.3 Waves, beaches and maritime structures	16
4.4 Marine geology and sedimentology.....	18
<b>5. Nautical sciences.....</b>	<b>44</b>
5.1 Aids to navigation in coastal waters .....	16
5.2 VTS and VTMIS .....	10
5.3 Information to Mariners .....	8
5.4 Electronic Cartography .....	10
<b>6. Legal aspects.....</b>	<b>36</b>
6.1 Product liability .....	12
6.2 Contracts .....	8
6.3 Law of the Sea.....	8
6.4 delimitation zones .....	8
<b>7. Specialism Subjects .....</b>	<b>108</b>
7.1 Dredgers and dredging operations.....	24
7.2 Obsruction surveys .....	20
7.3 Buoyage and beaconing technology .....	12
7.4 Hydraulic surveys.....	12
7.5 Marine information systems .....	16
7.6 Pollution monitoring .....	12
7.7 Organization of a survey operative unit.....	12
<b>8. Hydrographic Data Management.....</b>	<b>140</b>
8.1 Hvdrographic Data Management.....	70

## 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**  
(from 14 May to 10 November 2001)

**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 .....



10. Person to notify in case of emergency:
- Name.....
- Address .....
- .....
- Telephone .....
- Fax .....
- E-Mail .....
11. Present position and description of duties .....
- .....
12. Educational background.....
- .....
- .....
13. Previous experience .....
- .....
- .....
- Nominee's signature .....

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

**ACCEPTANCE FORM**

I hereby accept the invitation of the International Maritime Academy (IMA) to participate in the Course on Harbour and Coastal Hydrography aimed at Harbour and Coastal Surveyors (14 May to 10 November 2001).

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 .....