

Dossier del BHI No. TA-006

<p><b>CIRCULAR No. 4/2001</b> <b>19 de Enero del 2001</b></p>
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**CURSO SOBRE "HIDROGRAFIA PORTUARIA Y COSTERA"  
EN LA ACADEMIA MARITIMA INTERNACIONAL (AMI),  
TRIESTE, ITALIA**

*(14 de Mayo - 10 de Noviembre del 2001)*

Muy Señor nuestro,

La Academia Marítima Internacional (AMI) de Trieste ha informado al BHI, en nombre de las Autoridades Italianas, que se ha previsto un curso sobre "Hidrografía Portuaria y Costera" en 2001. Este curso es la segunda edición del curso anterior (1999) "Hidrografía Portuaria y Costera", y en él se dedica más tiempo a la Administración Costera.

El curso ha obtenido reconocimiento en el Nivel de Categoría B, opción 2, según lo establecido en la 8ª edición de las Normas por el Comité Consultivo Internacional de la FIG/OHI.

El módulo "Administración de Datos Hidrográficos" (1 mes) ha sido añadido a este curso estándar, así pues los estudiantes serán formados en la moderna administración de datos hidrográficos y cartográficos.

El curso empezará el 14 de Mayo del 2001 y finalizará el 10 de Noviembre del 2001.

El curso ha sido creado para doce estudiantes de todos los países. Se solicita a las autoridades gubernamentales responsables de la Hidrografía que envíen las solicitudes de sus candidatos a la Academia Marítima Internacional (AMI), via Eduardo Weiss 15, 34127 Trieste, Italia (Teléfono: +39 040 350829, Fax: +39 040 350322 y E-mail: imoima@imoima.org) **a través de la EMBAJADA ITALIANA en su país**, con copia al Bureau Hidrográfico Internacional. **Los nombramientos que no se hayan enviado a través de las Embajadas Italianas no serán aceptados**, y así pues no serán tomados en consideración en la selección. **Los nombramientos deben recibirse en la AMI antes del 12 de Marzo del 2001 lo más tardar.**

El apoyo proporcionado por la AMI cubrirá los gastos de viaje, el transporte local en Trieste, el alojamiento y las comidas. El dinero para otros gastos personales deberá ser **proporcionado por la AUTORIDAD NACIONAL DE CADA ESTUDIANTE.** (Ver Anexo 2, página 4 - Logística).

El curso es de gran importancia a causa de sus objetivos, su duración y su contenido técnico. Se espera que los Servicios Hidrográficos de los Estados Miembros de la OHI y, en particular, los de aquellos situados en Europa, estén disponibles y que deseen dar su apoyo a la AMI en términos de conferenciantes, basándose en las solicitudes que la AMI dirigirá directamente a cada país.

Se facilita información sobre el programa del curso y la logística en el Anexo 2. Se adjunta también una copia del Impreso de Nombramiento (Anexo 3).

En nombre del Comité Directivo,  
Atentamente,

Contralmirante Giuseppe ANGRISANO  
Presidente

Anexo 1 -	Lista de Distribución	
Anexo 2 -	Detalles del Curso & Logística	<i>(en Inglés únicamente)</i>
Anexo 3 -	Impreso de Nombramiento para la participación & Impreso de Aceptación	<i>(en Inglés únicamente)</i>

**LISTA DE DISTRIBUCION**

- Todos los Estados Miembros de la OHI (incluyendo a GUATEMALA)
  
- ARABIA SAUDITA
- AUTORIDAD PALESTINA
- BANGLADESH
- BULGARIA
- COSTA RICA
- EL SALVADOR
- HONDURAS
- ISRAEL
- KENYA
- NAMIBIA
- NICARAGUA
- PANAMA (Servicio Marítimo Nacional, Instituto Geográfico Nacional  
Tommy Guardia, Autoridad del Canal de Panamá)
- TANZANIA
- UGANDA
- YEMEN
  
- Proyectos MEDA de la DGIB de la CE – Mr. LAUREN,  
Transporte Marítimo - DGVII de la CE – Jefe de la División, Mr. W. DE RUITER.
  
- Academia Marítima Internacional, Trieste, Italia.
  
- Ministerio Italiano de Asuntos Exteriores, Dirección General de la Cooperación para el  
Desarrollo, Roma, Italia.
  
- Ministerio Italiano de Asuntos Exteriores, DGCS Ufficio XIII, viale Tiziano 80 –  
Roma, Italia.
  
- Región Friuli-Venezia Giulia, Assessore Regionale ai Trasporti – Avv. W. Santarossa,  
via Giulia 75/1, 34125 Trieste, Italia.
  
- Presidente de la Provincia de Trieste, Piazza Vittorio Veneto 4, 34132 Trieste, Italia.
  
- Presidente de la Autoridad Portuaria de Trieste, Punto Franco Vecchio, 34135 Trieste,  
Italia.
  
- Universidad de Trieste – Magnifico Rettore, Piazzale Europa 1 (Rettorato),  
34100 Trieste, Italia.
  
- Presidente de la Cámara de Comercio de Trieste, Piazza della Borsa 14,  
34100 Trieste, Italia.

## 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
- control dredging operations
- control pollution monitoring
- conduct hydraulic surveys
- 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 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 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>
4.1 Meteorology .....	16
4.2 Coastal oceanography.....	18
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 Obstruction 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 Hydrographic Data Management .....	70
8.2 Cartographic 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.....
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 will not be 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 .....

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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 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 .....  
.....  
.....

Date .....