



# WORLD HYDROGRAPHY DAY 2013

## WORLD HYDROGRAPHY DAY 2013

### Hydrography - underpinning the Blue Economy

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#### CELEBRATION OF WORLD HYDROGRAPHY DAY BY THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION

Monaco, 20 June 2013



The theme for this year's celebration was "*Hydrography - supporting the blue economy*" - highlighting the significant economic value of hydrography to all human activities that take place in, on or under the sea.

Celebration of world Hydrography Day in Monaco received a significant boost from the Italian Navy whose surveying vessel *Galatea* (Commanding Officer Lieutenant Giorgio Mazzi) was berthed in Monaco's main harbour, Port Hercule and was open to visitors.



*The Commanding Officer of Surveying Ship Galatea  
presents a gift to the IHO President*

Guests from the government, local dignitaries, maritime industry, and current and retired IHO staff gathered on the rooftop terrace at IHO headquarters for an evening reception. The Prince of Monaco was represented by HE Jacques Boisson, Secretary of State.

World Hydrography Day celebrations in the Italian Hydrographic Institute in Genoa were held on 13 June which allowed the Hydrographer of Italy, Rear Admiral Andrea Liaci to attend the ceremony in Monaco.

In addition, the IHO was hosting a meeting of the Black and Azov Seas Working Group which enabled the Hydrographers of Georgia, Russian Federation, Turkey and Ukraine to be present.



*President Ward addresses guests at WHD celebration*

The speech delivered by IHO President Robert Ward followed the theme of this year's celebration. This was followed by the handing over of data from a recent survey conducted in the Antarctic Peninsula by Mr. Stephen Wilkins from his exploration yacht *Xplore*. This survey will be passed on to the hydrographic offices that are producing charts of the Antarctic Peninsula.

**World Hydrography Day was also celebrated around the world by IHO Member States** allowing the national hydrographic services an opportunity to highlight the importance of their activities. The following reports have been received from IHO Member States who observed this special day.

## WORLD HYDROGRAPHY DAY IN BANGLADESH

### SEMINAR ON THE OCCASION OF WORLD HYDROGRAPHIC DAY 2013 BANGLADESH

Bangladesh Navy continued her effort in celebrating the 'World Hydrographic Day' as like the previous years. This year the day was celebrated with proper gesture by calling a seminar which was outlined keeping the theme of the day "Hydrography-underpinning the Blue Economy". Different maritime stakeholders of country attended the seminar and spoke very high about the contribution of hydrographic services for the national economy.



Chief Guest, Director Hydrography and other Speakers

At the outset, the key note presentation was addressed by the Director Hydrography of Bangladesh Navy, Captain S Mahmudul Hassan, (H), aowc, psc. He covered many fundamental aspects like the importance of hydrography, role of IHO, potential of the blue economy and the hydrographic services of Bangladesh & its' importance for the country. He explained the economic benefit that the government, industry and public can obtain from hydrographic services. Other distinguished speakers from different maritime organizations also spoke on the occasion.



Chief Guest delivering lecture on World Hydrography Day

Chairman, National Hydrographic Committee R Adm Aurangzeb Chowdhury graced the occasion as Chief Guest. He also highlighted the importance of Hydrography for a maritime nation like Bangladesh. Both print and electronic media personnel were present in the seminar and gave wide coverage in various TV channels and national dailies.

A display was also arranged to acquaint the participants with different hydrographic products and equipment. Lot of ancient and modern hydrographic equipment was displayed. Participants went through the display with intense curiosity. They could imagine the hardship that the hydrographers go through to make the water safe for the navigators.



Nautical Charts and Hydrographic Instrument Display

We are very optimistic that a strong message has been delivered through this seminar among the maritime stakeholders regarding the benefit of hydrographic services in supporting the blue economy. We believe that different government organs, local shipping industries and other maritime stakeholders are now much more educated on hydrography.

**Hydrography - Underpinning the Blue Economy**

**SEMINAR ON  
WORLD HYDROGRAPHY DAY 2013  
21 JUNE 2013**

**HYDROGRAPHY  
UNDERPINNING THE BLUE ECONOMY**

**IHO Member States**

**Bangladesh Navy Hydrographic Department**

**WHQ** Naval Headquarters, Operations Branch  
Directorate of Hydrography, Banani Dhaka-1213  
Telephone: +(088) 02 8858620  
Fax: +(088) 02 8754270

**BNHOC** Bangladesh Navy Hydrographic & Oceanographic Centre  
New Mooring, Chittagong  
Telephone: +88 031 740391-9 Ext-4174  
Email: bnhoc.bd@gmail.com

**Organized By:  
Commodore Commanding Chittagong  
Overall Coordination:  
Directorate of Hydrography  
Venue:  
School of Maritime Warfare and Tactics**

Brochure which was prepared for the seminar

# Hydrography - Underpinning the Blue Economy

## IHO BACKGROUND



During 19th century, many maritime nations established hydrographic offices to provide means for improving the navigation of naval and merchant vessels. There were substantial differences in hydrographic procedures, charts and publications. For developing common hydrographic and nautical standards, International Hydrographic Organisation (IHO) was established in 1921 at Monaco, with the generous offer of Prince of Monaco Albert I, as International Hydrographic Bureau (IHB). The present name was adopted in 1970. Presently IHO has 80 member States. The principal role of the IHO, as the competent international authority for hydrography, nautical charting and associated matters, is to improve the provision of adequate and timely hydrographic data, products and services to all parts of the world. This directly supports the Blue Economy. The role includes the maintenance of international standards to help ensure that mariners and other users of hydrographic data can use and understand the data easily.

## Role of Hydrographers and Nautical Cartographers

Hydrographic surveyors are involved in surveying to improve nautical charts and provide qualified base data for maritime geospatial information systems. They also are often involved in specialized tasks including survey for undersea pipelines and cables, the installation of offshore structures including wind farms, oil and gas platforms and surveys for new port and harbours. Nautical cartographers take information from hydrographic surveys and from other sources and turn it into nautical charts and other marine geospatial products and services.

## Seminar Programme

Time	Events
0800- 0900	Registration
0900- 0905	Recitation from Holy Quran
0905- 0915	Opening Address by COMCHIT
0915- 0940	Keynote Presentation on "Importance of Hydrography for Blue Economy and the Role of IHO" by Director of Hydrography, Bangladesh Navy
0940- 0950	Address by Chief Guest
0950- 1030	Tea Break
1030- 1100	Presentation on BN Hydrographic Activities by OIC BNHOC
1100- 1115	Presentation by DG Shipping
1115- 1130	Presentation by CPA
1130- 1140	Presentation by MPA
1140- 1150	Presentation by BIWTA
1150- 1200	Vote of Thanks by CSO to COMCHIT

## Theme of World Hydrographic Day 2013

On 21st June each year the IHO celebrates World Hydrography Day. World Hydrography Day is an opportunity to increase public awareness of the vital role that hydrography plays in everyone's life.

The theme for this year's World Hydrography Day, which is also the 92 anniversary of the establishment of the IHO, is "Hydrography - Underpinning the Blue Economy". The term "blue economy" means ... the sum of all economic activity associated with the oceans, seas, harbours, ports and coastal zones.

Every human activity conducted in, on or under the sea depends on knowing the depth and the nature of the seafloor, the identification of any hazards that might exist and an understanding of the tides and the currents. Obtaining and disseminating this hydrographic knowledge is the role of the world's hydrographic surveyors and nautical cartographers. Their work is the most fundamental of all the enablers required to develop and sustain the *Blue Economy*.

The seas and oceans, including the seabed and the sub-seabed, represent a vast resource for food, mineral resources, energy, water, bio-medicines, and infrastructure that in turn creates wealth for individuals and for nations. The Blue Economy is more than the traditional core activities of fishing, maritime trade and passenger ships. It also includes aquaculture, biomedicine, boats and shipbuilding, cables and pipelines, coastal zone management, defence and security, desalination and water treatment, marine recreation, ocean energy and minerals, ocean science and observation, port operations, robotics and submarines, shoreline development, telecommunication, tourism, weather and climate science, etc.



Brochure which was prepared for the seminar



Key note speaker delivering lecture



Spectators of the seminar



Chart display during the seminar

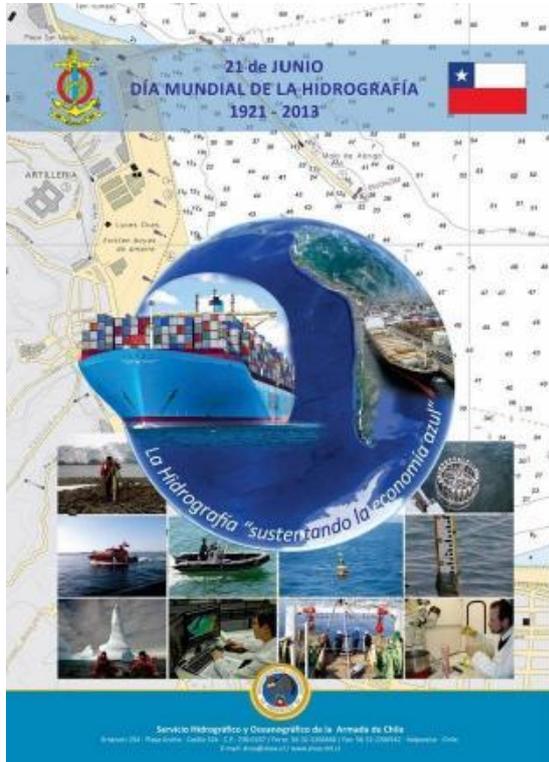


Instrument display during the seminar

# WORLD HYDROGRAPHY DAY IN CHILE

## NEWSLETTER

# WORLD HYDROGRAPHY DAY



On November 29, 2005, the General Assembly of the United Nations approved the Resolution A/60/30, adopting June 21 as the "World Hydrography Day".

The aim of this celebration is to make public the work of the International Hydrographic Organization (IHO), at all its levels, and raise awareness regarding the vital role represented by hydrography in the life of every person. The United Nations encourages every country to work with the IHO to promote a safe navigation, especially in the international navigation areas, ports and vulnerable or protected marine areas.

Since 2006, the IHO has been identifying a central topic for each Anniversary, since this was created. The topic for this year, which is the 92nd anniversary of the IHO, is "**Hydrography - supporting the Blue Economy**".

The term "Blue Economy" means ... the sum of all economic activities related to the oceans, the seas, the ports and coastal areas.(1)

All human activity carried out in, on or under the ocean depends on the knowledge of the depth and the nature of the seabed; on the identification of the dangers that may exist, and on an understanding of the tides and currents. Obtaining and disseminating this hydrographic knowledge is the role of the nautical hydrographers and cartographers around the world. Theirs is the most important job of all the required factors to develop and sustain the Blue Economy.

### The potential of the Blue Economy

The seas and the oceans are the main contributors to the world economy. The seas and oceans are the 71% of the world surface; and over 90% of the world maritime trade is carried out by sea.

The seas and oceans, which also includes the ocean floor and subsurface of the ocean floor, represent wide food resources, mineral resources, energy, water, biomedicines, and infrastructure, all of which are also sources of enrichment.

The Blue Economy means more than other traditional fishing activities, the maritime trade and the passenger ships. It also includes:

- Aquiculture.
- Biomedicine.
- Vessels and Shipbuilding.
- Cable-lying and underwater piping.

- Coastal stewardship.
- Defense and Security.
- Desalinization and water treatment.
- Recreational maritime activities.
- Science and observation of the oceans.
- Port operations.
- Robotics and submarines.
- Development of the coastal line.
- Telecommunications.
- Tourism.
- Large floating platforms.
- The energy generated by the ocean and minerals.

## **The role of the IHO**

The main role of the IHO as an international authority in terms of hydrography, nautical cartography and related topics, is to improve the provision of data, information, products and hydrographic services, and to establish international regulations that rule the activity. The IHO works with Hydrographic Services of the Member States and the Hydrographic Regional Committees that have been established.

The IHO has an active program to create capacities, which helps countries to develop and improve their hydrographic capacities. The capacity-building projects are carried out, very often, in cooperation with other international organizations and the growing involvement of the industry. All of these directly support the Blue Economy.

The role of the Hydrographic and Oceanographic Service of the Chilean Navy (SHOA)

The SHOA represents Chile before the IHO, and since its establishment in 1874 it has the mission to provide technical elements, as well as information and technical support meant to make sailing on river and lake routes, inland waterways, territorial sea, and high seas adjacent to the coasts of Chile safe.

The SHOA is the official, technical and permanent service of the country in terms of Hydrography, maritime hydrographic surveying, river and lake surveying, nautical cartography, making and publishing of domestic waters nautical charts, Oceanography, planning and coordination of all the national oceanographic activities linked to physiochemical researches, Tides, Tsunamis, Marine Geography, Sailing, Astronomy, Official Time Systems, and Aerial Surveying linked to the Nautical Chart.

SHOA is also responsible of contributing, through research, to the development and promotion of other related domestic and international activities, which are of interest for the country.

The hydrographers who work at the SHOA are part of the surveying carried out to improve nautical charts, using high definition Multibeam Systems on boats and vessels, and satellite imaging. They are also qualified on the field of accurate positioning, and measuring of currents and tides.

Nautical cartographers process the information of the hydrographic surveys and other sources, and they reflect it in nautical charts and other products and maritime services. Traditionally, charts are printed on paper, but now electronic nautical charts are more common. The charts use international regulations, established by IHO to ensure that they can be used and understood by all seamen around the world.

Contribution of the SHOA to the Blue Economy concept

Sphere of action: "Maritime Safety"

- SHOA, keeps and updates 329 Paper Nautical Charts, 26 Special Charts, 10 Continental Charts, and 179 Electronic nautical charts, and puts them at the disposal of the different maritime users, for the use of vessels entering or leaving ports or sails within the territorial Chilean sea.

- The SHOA publishes, updates and puts at disposal of the maritime community 22 important nautical publications, which allow safe navigation of vessels within the territorial Chilean sea, including: Derrotero de las Costas de Chile (Map of the Chilean Coasts) (6 volumes), Tide tables of the Chilean Coast, list of the Lighthouses, Navigation Manual, Nautical Almanac, Navigation Aids, Hydrographic Atlas of Chile and General Instructions for Navigation Near the Coast, and 26 other especial publications, among others.

- The SHOA annually carries out an average of 270 hydrographic commissions, developing bathymetries on deep shallower waters to look for dangers that might affect navigation safety.

- The SHOA provides important hydro-cartographic backgrounds and information for several State Agencies, in relation to the operational area and cartographic historical information and to the Continental Platform, respectively.

- The SHOA daily reports the information from the Warning System, with urgent messages to the vessels navigating within Chilean maritime territory, through Radio Based Maritime Stations using the NURNAV and NAVTEX system, in Spanish and English, respectively. (429 warnings during 2012).

- The SHOA daily reports the information from the Warning System that affects the ocean area, NAVAREA XV CHILE, through the SAFETYNET system, in English. (204 warnings during 2012).

- The SHOA monthly publishes the Newsletter for Seamen, with the updates that must be included in the nautical charts and publications of every vessel controlled by Chilean Maritime Authority. (184 warnings during 2012).

- The SHOA controls and disseminates the Official Time of Chile, and time systems for purposes of navigation, and citizen use.

Sphere of action: "Safeguarding of the Human Life at Sea"

- The SHOA is responsible of operating and monitoring the National Tsunami Warning system (SNAM), 24 hours a day, 365 days a year.

- The SHOA designs and provides 34 Tsunami Flood Charts (CITSU) for different ports, cities and areas of the country, giving them to the authorities in charge of the safety of the population. These charts are available on the SHOA website.

- The SHOA manages, keeps and operates the National Tide Station Network, which is part of SNAM, consisting of 40 stations, which record the sea level in the main cities and national ports, which contributes to population safety, as well as contributing with these records to national and international scientific projects, government organisms and maritime development projects, among others.

Sphere of Action: "Preservation of the Aquatic Environment and Battle against Pollution"

- The SHOA develops a monitoring plan of the main port areas of Chile, implementing 4 annual samples, with an analysis of 14 stations each, cooperating with the preservation of the marine environment.

Sphere of Action: “Development of Maritime Interests”

- The SHOA provides cartography and bathymetry for the decision making process in projects, such as building port facilities, management of the coast area, touristic development, and seabed exploitation and fishing activities.

- The SHOA annually releases on average of 30 Official Authorizations to perform bathymetric surveying; it conducts 40 Inspections of Precision Soundings; 50 revisions of Technical Reports and 30 approvals of Technical Reports for touristic and port development and aquaculture projects.

- The SHOA reviews 60 Technical Reports of Establishment of Shore Ranges, and 60 inspections in-situ throughout Chile.

- The SHOA annually develops 1 Maritime Scientific Cruise in Remote Areas (CIMAR), in the southern area or central insular area of Chile, implementing 16 research projects, developed by different Chilean universities.

- The SHOA distributes to the national scientific community the magazine “Ciencia y Tecnología del Mar” (Sea Science and Technology) every six months.

- The SHOA contributes to the National Scientific and Student Community with a complete technical Library, specialized in marine sciences with over 12.000 publications and technical reports, and over 16.000 copies of scientific magazines.

- The SHOA contributes with Officers and Seamen from the Chilean Navy, hydrography and oceanography experts, as well as training civilian personnel working for the SHOA with training courses, seminars and workshops, in Chile and other countries.

- The SHOA provides the national and international community with its extensive and validated Database, through the National Center of Hydrographic and Oceanographic Data of Chile (CENDHOC), in areas of national interest, for projects development and research.

- The SHOA keeps, guards and has historical and current records of 365 nautical and themed charts, which include original drawings, reports, process accountings and finished products; besides it has 70.000 frames and slides that cover the entire Continental, Insular and Antarctic territory of Chile.

In this new commemoration of the World Hydrography Day, The SHOA wants to emphasize on its service commitment and contribution to the support of the “Blue Economy” concept, selected this year as central topic by the IHO.

(1) As defined by the Maritime Alliance [www.themaritimealliance.org](http://www.themaritimealliance.org), and based on the National Report: State of the US Oceanic and Coastal Economies -2009.

## WORLD HYDROGRAPHY DAY IN GUATEMALA



El Vicealmirante Tyrone René Hidalgo Cáceres, Viceministro de Marina y la Dirección General de Asuntos Marítimos del Ministerio de la Defensa Nacional

Tienen el honor de invitarlo a usted, a la primera celebración nacional del

### **Día Mundial de la Hidrografía**

el tema propuesto por la Organización Hidrográfica Internacional para el presente año es

### **“LA HIDROGRAFÍA SUSTENTANDO LA ECONOMIA AZUL”**

Actividad académica que se llevará a cabo el día viernes 21 de junio del presente año a partir de las 1000 horas, en el auditorium de la Universidad Galileo.

(7 avenida final, Calle Doctor Eduardo Suger, Torre 1, 4to. nivel).

Esperando contar con su presencia

Militares: Uniforme 2C

Civiles: Traje Casual

Información:

Tel: 23344575

hidrografía@dgam.gob.gt

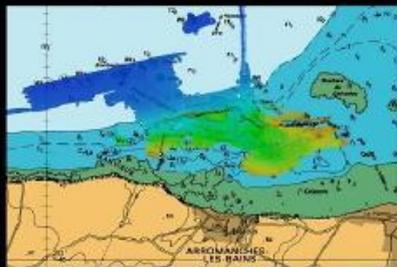


## “La Hidrografía Sustentando la Economía Azul”



El término “economía azul” significa...  
la suma de toda la actividad económica asociada a los océanos, los mares, los puertos y las zonas costeras. Toda actividad humana efectuada en, sobre o bajo el mar depende del conocimiento de la profundidad y la naturaleza del fondo marino, de la identificación de los peligros que puedan existir y de una comprensión de las mareas y las corrientes. Obtener y diseminar estos conocimientos hidrográficos es el rol de los hidrógrafos y los cartógrafos náuticos del mundo entero.

Su trabajo es el más fundamental de todos los factores requeridos para desarrollar y sostener la “Economía Azul”.



GUATEMALA, 2013



**GENERAL DIRECTORATE OF MARITIME AFFAIRS  
MINISTRY OF NATIONAL DEFENCE  
ARMY OF GUATEMALA**

GUATEMALA– REPUBLIC OF GUATEMALA, C.A.

**WORLD HYDROGRAPHY DAY  
92<sup>nd</sup> anniversary of the establishment of the IHO**  
Guatemala City, Guatemala

The First National Celebration of World Hydrography Day was held this year on 21<sup>st</sup> June at the “Galileo University”. The central theme was: **“Hydrography - Underpinning the Blue Economy”**, which had been previously proposed by the International Hydrographic Organization (IHO) in Circular Letter No. 13/2013. In that same Circular Letter Member States were encouraged to organize events at various levels, in order to highlight the importance and the utility of hydrography for safety of navigation and, in particular, to underline the economic benefits that can be gained by governments, industry and the public in general, supporting hydrographic programmes at a national level.

This event was presided by **Vice-Admiral Tyrone René HIDALGO CÁCERES**, Deputy Minister of the Navy at the National Defence Ministry, who opened the ceremony with a welcome address to all the participants, followed by a presentation by **Vice-Admiral (R) Julio Alberto YON RIVERA**, first national Hydrographer recognized by IHO, on the main theme of the event. V.A. YON RIVERA took over the responsibility for Hydrography at a national level, creating the basis for its development in Guatemala.





## **Blue Economy**

The term “blue economy” means all the economic activity related to oceans, seas, ports and coastal areas. (As defined by the Maritime Alliance - [www.themaritimealliance.org](http://www.themaritimealliance.org) -, based on the National Report: Status of the Oceanic and Coastal Economies of the USA, 2009.)

All human activity that takes place in, on or under the sea, relies on the knowledge of the depth and nature of the sea bottom, the identification of the dangers that might exist and an understanding of the tides and currents. The role of hydrographers and cartographers worldwide is to obtain and disseminate this hydrographic knowledge. Their work is the most fundamental of all the requirements for the development and support of the Blue Economy.

Guatemala has now reactivated the Inter-Institutional Commission of Hydro-Oceanographic Research (**CIHO**), which was created by Governmental Agreement 254-85, amended by Governmental Agreement 51-91, by which the National Defence Ministry (MDN) is responsible for chairing the Commission by the General Directorate of Maritime Affairs (DIGEMAR); the Ministry of Communications, Infrastructure and Housing (MCIV) is in charge of the Secretariat, and the members of the Commission are the International Waters and Limits Section of the Ministry of External Relations (MINEX), the Ministry of Agriculture, Livestock and Food (MAGA), the Ministry of Energy and Mines (MEM), the National Geographic Institute (IGN) and the National Institute of Seismology, Vulcanology, Meteorology and Hydrology (INSIVUMEH).

Guatemala has focused its efforts on carrying out hydrographic surveys on both coasts, under the CIHO, as well as approaching bodies such as the UKHO, the US Fleet Survey Team, amongst others, to get technical assistance in this domain. Likewise, within the CIHO, fieldwork has been carried out with different state institutions, non governmental organizations and with the private sector. Amongst the work carried out, we can mention the following:

Updating of survey points of importance to hydrography and oceanography, in the Pacific Ocean and Guatemalan Caribbean Sea (IGN-DIGEMAR);

Hydrographic survey in the Commercial Dock of Puerto Barrios, Izabal, (DIGEMAR - Empresa Portuaria Santo Tomás de Castilla EMPORNAC);

Installation of the continuous tide gauge station and levelling of tide pole on the Guatemalan Pacific coast, (DIGEMAR-Empresa Portuaria Quetzal EPQ-IGN);

Calibration of a radar tide gauge on the Pacific coast, (DIGEMAR-INSIVUMEH);

Support to the Regional Project concerning the fish population of Commercial and Biological Importance in the Wildlife Refuge of Punta de Manabique, in the Guatemalan Caribbean, as part of a regional survey of the Mesoamerican Coral.

Amongst the future projects, there will be an inter-institutional hydrography course a hydrographic survey in the Atitlan lake (of touristic and environmental importance) and a visit of an oceanographic ship to highlight the importance of sea research and a hydrographic survey in Puerto Quetzal (Guatemalan Pacific).

Following this first national celebration of World Hydrography Day we would like to thank all the participants, as well as the International Hydrographic Organization, for all the support given to hydrographic development in Guatemala.

The participant organizations were:

Vice Ministry of the Navy

Directorate of Maritime Affairs

Empresa Portuaria Quetzal- OBIMAR

Galileo University

Rafael Landívar University

University of San Carlos de Guatemala, Marine Studies and Aquaculture Centre

Limits? Boundaries?and International Waters of the External Relations Ministry

National Geographic Institute

National Institute of Seismology, Vulcanology, Meteorology and Hydrology



## WORLD HYDROGRAPHY DAY IN MONACO

*The Italian Ambassador in Monaco's press release*

### **Galatea, Italian Navy hydrographic vessel, is in Monaco for World Hydrography Day.**

Today, World Hydrography Day, the Italian Navy and the Italian Hydrographic Institute, member of the International Hydrographic Organization (IHO), are participating in the events organized in Monaco, where the IHO headquarters are located, with the hydro-oceanographic vessel Galatea, bearing witness to the work carried out by Italy in promoting IHO principles and goals.



To emphasize the crucial role of hydrography in the world and its impact on blue economy, as well as its role in ensuring safety of navigation and international cooperation, is of paramount importance for the IHO.

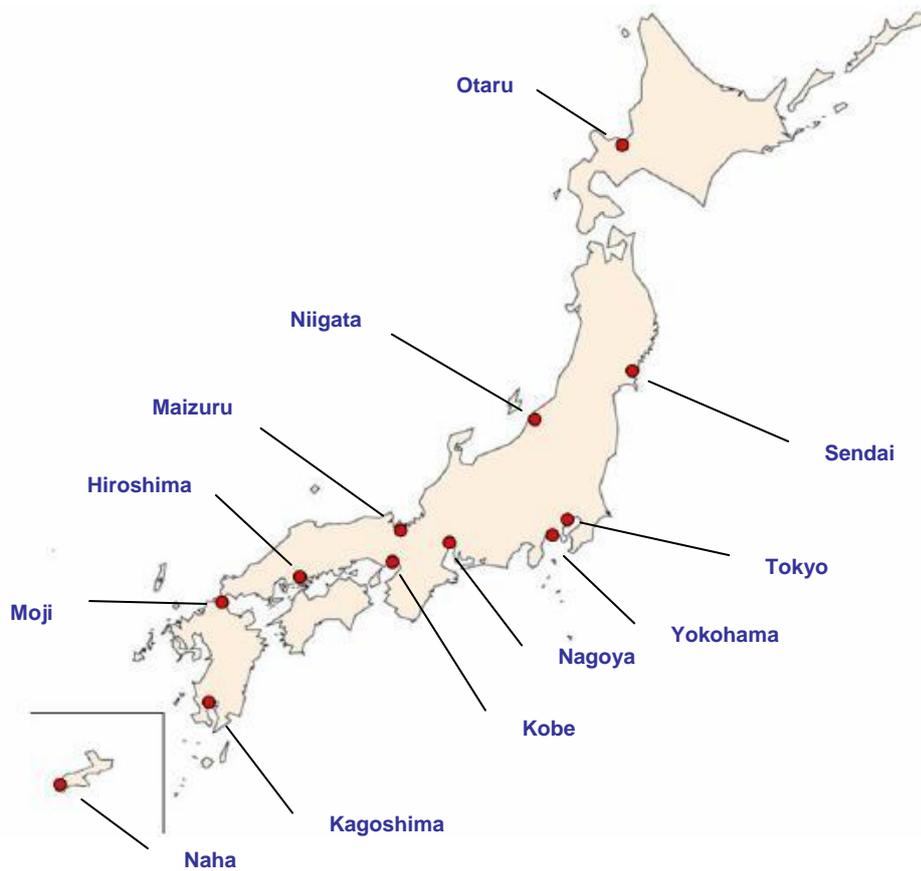
Italy has been carrying out a lot of work under the IHO, mainly in the Mediterranean Sea, thanks to the Italian Navy and the Italian Hydrographic Institute, based in Genoa.

Many important personalities present at the events organized for World Hydrography Day visited the ship. Talking with Mr Robert Ward, President of the IHB, and Mr Antonio Morabito, Italian Ambassador in Monaco, the Commanding Officer of Galatea, Giorgio Mazzi, declared: "Galatea and Aretusa, from the Italian hydrographic fleet, represent the Italian Navy's efforts to promote marine development through the constant updating of charts in order to guarantee safety of navigation according to the International Hydrographic Organization's principles".

## WORLD HYDROGRAPHY DAY IN JAPAN

### Celebration of World Hydrography Day 2013 in Japan

Japan celebrated World Hydrography Day in Tokyo and many places where Regional Head Quarters of Japan Coast Guard are located by media release and exhibiting charts.



TV reporter explaining a survey vessel  
**Nagoya**



Lecture to Newspaper reporter about hydrographic survey  
**Sendai**

## Posters introducing WHD put at the entrance of Headquarter and Regional Headquarters of JCG



**World Hydrography Day**  
 ~世界水路の日~

「世界水路の日」は、船舶交通の安全と海洋環境の保全に不可欠な水路業務の重要性を、国際水路機関とその加盟国が一般の人々に広く啓蒙することを目的として、2005年11月の国連総会において採択されたものです。国際水路機関の設立日である6月21日が、「世界水路の日」として定められました。

**■ 国際水路機関**  
 1921年6月21日、各国水路機関の協力促進を目的として「国際水路局」が設立されました。その後1979年に「国際水路機関条約」が締結し国際水路機関となりました。自国と他国間の外洋航路の統一により航路をより容易かつ安全にすることです。

**■ 国際水路機関加盟国**  
 2018年4月現在の加盟国は31ヶ国です。主な加盟国には、中国、韓国、フランス、中国、韓国があります。

**■ 国際水路会議**  
 5年に一度、国際水路機関加盟国が参加する「国際水路会議」が開催されます。

**■ 地域水路委員会**  
 IHOには19の地域水路委員会があり、日本は東アジアに設立された水路委員会に加盟70から加盟し業務事務局として活動しています。



Headquarter  
Tokyo



1st Regional Headquarter  
Otaru



10th Headquarter  
Kagoshima

## Chart Exhibitions at various places in Japan



At the Museum of Maritime Science

**Tokyo**



Explanation of symbols placed on the chart



At the Museum of Maritime Science



Boys having paper crafts of survey vessel

**Kobe**

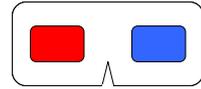


With JCG mascot "Umimaru"  
At the Japan Coast Guard Museum  
**Yokohama**



At the Maritime Affairs Exhibition Hall  
**Moji**

Anaglyph 3D images of the seafloor gained popularity at every place.  
You can see the seafloor three-dimensionally using red cyan glasses.



Boys & girls on the “Seafloor around Japan”  
Anaglyph 3D image is 3m x 7m in size  
**Hiroshima**



At the Event park “Niigata Furusato Mura”  
**Niigata**



At the library  
**Maizuru**



At the office building  
**Okinawa**

# WORLD HYDROGRAPHY DAY IN MEXICO



## BIENVENIDOS

### PRIMERA CONVENCION MEXICANA DE HIDROGRAFIA

"LA HIDROGRAFÍA SUSTENTANDO  
LA ECONOMÍA AZUL"

19, 20 Y 21 DE JUNIO DE 2013



- PARTICIPACIÓN: INDUSTRIA NACIONAL E INTERNACIONAL, EL SECTOR GUBERNAMENTAL Y PRIVADO QUE EFECTUA HIDROGRAFÍA EN MÉXICO Y EL SECTOR ACADÉMICO CON INTERESES AFINES AL TEMA.
- CONFERENCIAS: DE LOS PARTICIPANTES SOBRE SUS ÁREAS DE ESPECIALIDAD.
- EXPOSICIONES: DE SERVICIOS Y PRODUCTOS DE LA INDUSTRIA HIDROGRÁFICA E INTERCAMBIO DE EXPERIENCIAS.
- DIFUSIÓN: IMPULSO DE ESTÁNDARES HIDROGRÁFICOS INTERNACIONALES POR LA SECRETARÍA DE MARINA.



CAP. FRAG. C.G. EHC.  
MANUEL RICARDO  
LÓPEZ CRUZ

"ESTIMADOS PARTICIPANTES DE LA PRIMERA CONVENCION DE HIDROGRAFIA HONESTAMENTE, ESTOY GRATAMENTE SORPRENDIDO POR LA CANTIDAD DE PERSONAS QUE ACEPTARON NUESTRA INVITACION.

CUANDO CONCEBIMOS ESTE PROYECTO, VISUALIZAMOS UN INICIO CON MENOR CONVOCATORIA, EN UN PROYECTO MULTIANUAL PARA LOGRAR LO QUE HOY HEMOS HECHO, CONVENIR EN REUNIRNOS.

ESTA CONVOCATORIA SUPERA LA SINERGIA MUNDIAL DE COMUNIDADES HIDROGRAFICAS NACIONALES Y REGIONALES, AL CONVOCAR CON LA MISMA PROPORCION, CON LAS MISMAS OPORTUNIDADES, A LOS SECTORES DE GOBIERNO, PRIVADO Y EDUCATIVO.

LA PARTICIPACION, LA EXPOSICION TECNOLOGICA DE PRODUCTOS Y SERVICIOS, EL COMPARTIR EXPERIENCIAS TECNICAS EN LA MATERIA, NOS ENRIQUECERA Y NOS INTEGRARA EN UNA COMUNIDAD HIDROGRAFICA MEXICANA MAS SOLIDA.

BIENVENIDOS..."

**CONVENCIÓN MEXICANA DE HIDROGRAFÍA  
PARA CONMEMORAR EL DÍA MUNDIAL DE LA HIDROGRAFÍA, A REALIZARSE EN LAS  
INSTALACIONES DEL CLUB NAVAL DE LA TERCERA ZONA NAVAL MILITAR  
19 AL 21 DE JUNIO DE 2013  
VERACRUZ, VER.**

AGENDA DE ACTIVIDADES

FECHA	HORARIO	TALLERES	PONENTE	EMPRESA /COMPANÍA.	SALÓN
19 JUNIO	10:00-11:30	CREACIÓN DE UNA BASE DE DATOS BATIMÉTRICA PARA MÚLTIPLES APLICACIONES.	RAFAEL PONCE URBINA, LINDSAY GEE	ESRI, QPS	EL SUBMARINO
	11:30-13:00	SOFTWARE DE SISTEMA DE INFORMACIÓN DEL FONDO MARINO (SIS).	ALEXIS CÁRDENAS.	KONGSBERG UNDERWATER TECHNOLOGY, INC.	EL SUBMARINO
	15:00-16:00	INSTALACIONES DE LOS SISTEMAS MULTIHAZ A BORDO DE LAS PLATAFORMAS HIDROGRÁFICAS.	ALEXIS CÁRDENAS.	KONGSBERG UNDERWATER TECHNOLOGY, INC.	EL SUBMARINO
	16:00-17:00	PROCESAMIENTO Y ANALISIS DE DATOS BATIMÉTRICOS.	JUAN CARBALLINI	CARIS	EL SUBMARINO
FECHA	HORARIO	CONFERENCIAS	PONENTE	EMPRESA /COMPANÍA.	SALÓN
19 JUNIO	09:30-09:45	LISTA DE PRESENTES.			LOBBY
	09:45-10:00	<b>DESCRIPCIÓN DEL EVENTO, BIENVENIDA E INICIO DE CONFERENCIAS.</b>	CAP. DE FRAG. CG. EHC. MANUEL R. LÓPEZ CRUZ	SEMAR	EL NAVÍO
	10:00-10:30	LA ORGANIZACIÓN HIDROGRÁFICA INTERNACIONAL.	CAP. DE FRAG. CG. EHC. MANUEL R. LÓPEZ CRUZ	SEMAR	LA FRAGATA
	10:30-11:00	ECONOMÍA E HIDROGRAFÍA.	LIC. RAFAEL VILLAR.	DOCKSTAVARVET MEXICO S.A. DE C.V.	LA FRAGATA
	11:00-11:30	IMÁGENES DE FONDO MARINO CON APOYO DE MS 1000.	RABINDRANATH CANTU FUGUEMANN FIELD SERVICES & HYDROGRAPHIC SUPPORT	KONGSBERG MARITIME MEXICO	LA FRAGATA
	11:30-12:00	ALGUNOS EFECTOS OCEÁNICOS PRODUCIDOS POR LA BATIMETRÍA DEL LUGAR.	VICEALMIRANTE SIO. RET. ALBERTO M. VÁZQUEZ DE LA CERDA		LA FRAGATA
	12:00-12:30	IMÁGENES DE SATÉLITE Y DATOS LIDAR PARA EL MODELADO EN ZONAS DE COSTA Y DE OBJETOS HIDROGRÁFICOS.	ING. JAVIER DURÓN DÍAZ	INEGI	LA FRAGATA
	12:30-13:00	REGISTROS DE PARÁMETROS FÍSICO-BIOLÓGICOS.	DRA. MARIA ADELA MONREAL GOMEZ	UNAM INSTITUTO DE CIENCIAS DEL MAR Y LIMNOLOGIA	LA FRAGATA
	13:00-13:30	PRESENTACIÓN DEL BARCO HIDROGRÁFICO 25M.	LIC. RAFAEL VILLAR.	DOCKSTAVARVET MEXICO S.A. DE C.V.	LA FRAGATA
	13:30-14:00	<b>BRINDIS DE BIENVENIDA.</b>			EL NAVÍO
	14:00-15:00	<b>HORARIO DE ALIMENTOS Y ACTIVIDADES CULTURALES.</b>			EL NAVÍO
	15:00-15:30	RED GEODÉSICA NACIONAL.	LIC. JAVIER ARELLANO SÁNCHEZ	INEGI	LA FRAGATA
	15:30-16:00	ELABORACIÓN DE MODELOS HIDRODINÁMICOS DE INUNDACIÓN PARA LA PREVENCIÓN DE DAÑOS.	ING. MIGUEL ÁNGEL TREJO ROMÁN.	SIGSA	LA FRAGATA
	16:00-16:30	EL TRABAJO HIDROGRÁFICO EN LA MODELACIÓN MATEMÁTICA DE DINÁMICA COSTERA.	ERNESTO GRAY	TECNOCEANO	LA FRAGATA
	16:30-17:00	EL GEOIDE COMO REFERENCIA PARA MEDIR ELEVACIONES Y SU RELACIÓN CON EL NIVEL DEL MAR.	LMA DAVID AVALOS NARANJO	INEGI	LA FRAGATA
			<b>FIN DE ACTIVIDADES DEL DÍA.</b>		

20 JUNIO	09:30-10:30	DESCUBRIENDO LOS DATOS DE LA COLUMNA DE AGUA DE ECOSONDAS MULTHAZ Y SUS USOS.	ALEXIS CÁRDENAS.	KONGSBERG UNDERWATER TECHNOLOGY, INC.	LA FRAGATA
	10:30-11:00	EL ROL DE LOS SONARES MONTADOS EN AUV EN LA INDUSTRIA DEL PETRÓLEO Y OTROS PROYECTOS DE LEVANTAMIENTOS HIDROGRÁFICOS.	JUAN CARBALLINI	CARIS	LA FRAGATA
	11:00-11:30	MODELADO DEL FONDO MARINO UTILIZANDO DATOS MULTHAZ. MODELING OF THE SEABED USING MULTIBEAM DATA.	ING. PATRICK NISSEN.	RESON	LA FRAGATA
	11:30-12:00	MANEJO DE DATOS DE MAREA Y VELOCIDAD DEL SONIDO EN EL AGUA CON LAB VIEW.	M.C. ARTURO RONQUILLO ARVIZU	UNAM	LA FRAGATA
	12:00-12:30	EXPERIENCIAS DE LEVANTAMIENTOS HIDROGRÁFICOS CONDUCTOS PARA PROPOSITOS DIFERENTES A CARTOGRAFIA NAUTICA. EXPERIENCIES OF HYDROGRAPHIC SURVEYS CONDUCTED FOR PURPOSES OTHER THAN NAUTICAL CHARTING.	CARLOS TEJADA.	HYPACK	LA FRAGATA
	12:30-13:00	IMÁGENES DE SATÉLITE Y DATOS LIDAR PARA LA ELABORACIÓN DE CARTOGRAFIA COSTERA.	ING. HÉCTOR BETANCOURT VALDEZ.	BITS, S.A. DE C.V.	LA FRAGATA
	13:00-13:30	EL NUEVO PAPEL DE LA HIDROGRAFIA EN EL SIGLO 21: DE LA PRODUCCIÓN CARTOGRÁFICA AL MANEJO DE DATOS GEO-ESPACIALES.	RAFAEL PONCE URBINA	ESRI	LA FRAGATA
	13:30-14:00	NORMATIVIDAD TÉCNICA PARA LEVANTAMIENTOS GEODÉSICOS.	LIC. JAVIER ARELLANO SÁNCHEZ	INEGI	LA FRAGATA
	14:00-15:00	<b>HORARIO DE ALIMENTOS Y ACTIVIDADES CULTURALES.</b>			EL NAVÍO
	15:00-15:30	VALE LA PENA EL ESPACIO EN DISCO DE LOS DATOS DE COLUMNA DE AGUA PROVENIENTES DE MULTHAZ?	LINDSAY GEE	QPS	LA FRAGATA
	15:30-16:00	PROCESO DE PRODUCCIÓN DE LA CARTA BATIMÉTRICA EN INEGI.	LIC. FÉLIX FRÍAS IBARRA	INEGI	LA FRAGATA
	16:00-16:30	APLICACIONES METEOROLÓGICAS GPS/GNSS – EN LA RED DE ESTACIONES "SIERVO".	ING. OSCAR TOVAR CERÓN.	SIGSA	LA FRAGATA
	16:30-17:00	TENDENCIAS TECNOLÓGICAS EN LA TOMA DE DATOS EN CAMPO; EQUIPOS DE MEDICIÓN.	ING. LEONCIO OLVERA ESCORCIA Y LIC. JOVANY CRUZ GONZALEZ.	SYSTOP	LA FRAGATA
	<b>FIN DE ACTIVIDADES DEL DÍA.</b>				
21 JUNIO	09:30-10:30	CALIBRACIÓN DE LOS SISTEMAS MULTHAZ.	ALEXIS CÁRDENAS.	KONGSBERG UNDERWATER TECHNOLOGY, INC.	LA FRAGATA
	10:30-11:00	MODELOS DE DATOS HIDROGRÁFICOS Y SOLUCIONES EN APOYO DE LA INFRAESTRUCTURA DE DATOS ESPACIALES MARINOS.	JUAN CARBALLINI	CARIS	LA FRAGATA
	11:00-11:30	CARACTERIZACIÓN ACÚSTICA DEL RELIEVE BATIMÉTRICO DE LOS DIAPIROS SALINOS PROFUNDOS.	ING. FRANCISCO PONCE NÚÑEZ	UNAM	LA FRAGATA
	11:30-12:00	DETECCIÓN DE DERRAMES DE HIDROCARBUROS, MIROS.	ARTURO HERNÁNDEZ INURRETA	TELPRO TI	LA FRAGATA
	12:00-12:30	IMÁGENES DE ZONAS COSTERAS Y VALIDACIÓN DE MAPEO LIDAR.	GEOG. GIANNI XAVIER CRUZ VALDÉS	SIGSA	LA FRAGATA
	12:30-13:00	ENSEÑANZA DE LA NAVEGACIÓN CON CARTAS ELECTRÓNICAS, DE ACUERDO AL CONVENIO STCW2010.	CAP. ALTURA HÉCTOR HDEZ. SÁNCHEZ.	FIDENA, SUBDIRECTOR DE LA ESCUELA NAUTICA MERCANTE DE VERACRUZ, VER.	LA FRAGATA
	13:00	<b>CLAUSURA DE LA CONVENCION.</b>			



## PRIMERA CONVENCION MEXICANA DE HIDROGRAFIA

"LA HIDROGRAFIA SUSTENTANDO  
LA ECONOMIA AZUL"

19, 20 Y 21 DE JUNIO DE 2013

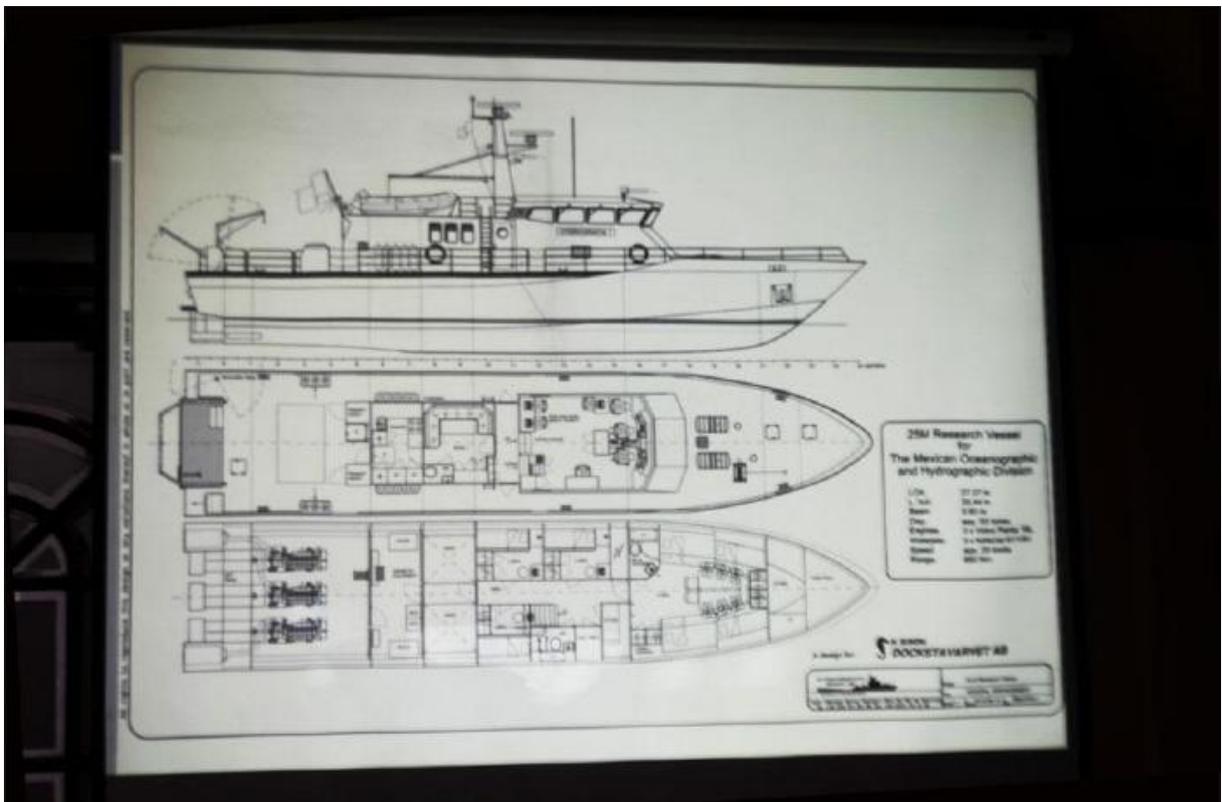
### GALERIA FOTOGRAFICA CORRESPONDIENTE AL

PRIMER DIA (19-06-2013) DE CONFERENCIAS, TALLERES Y EXPOSICIONES

































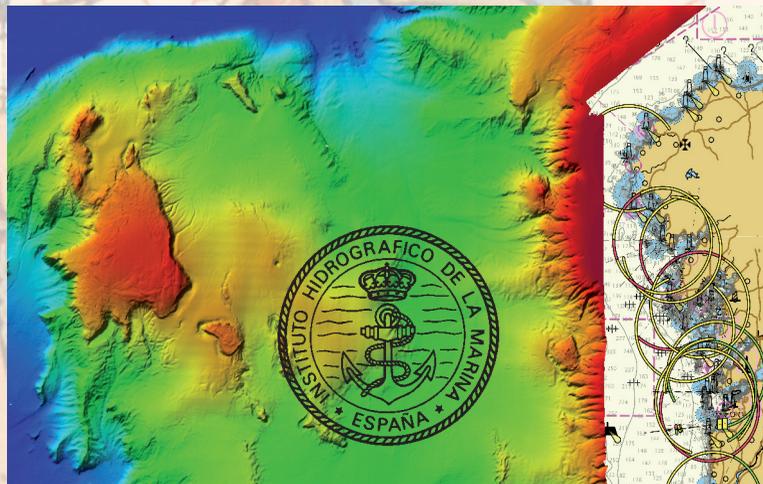
**WORLD HYDROGRAPHY DAY IN SPAIN**



**DÍA  
MUNDIAL  
DE LA  
HIDROGRAFÍA  
21 JUNIO 2013**



INSTITUTO HIDROGRÁFICO DE LA MARINA  
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11007 CÁDIZ  
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## PROGRAMA DE ACTOS

*El 29 de noviembre de 2005 la Asamblea General de las Naciones Unidas reconoció el acuerdo por parte de la OHI de instituir, siguiendo el ejemplo de la OMI y de la OMM, la celebración del Día Mundial de la Hidrografía, el 21 de junio de cada año, ya que ese mismo día, en 1921, entró en vigor la Convención de la Organización Hidrográfica Internacional.*

*El objetivo de esta celebración es proporcionar la oportunidad de dar publicidad a la labor desarrollada por la Hidrografía a todos los niveles y aumentar la cobertura de la información hidrográfica globalmente. Asimismo, a través de ésta, se insta a todos los estados a trabajar con la organización para promover la seguridad en la navegación, especialmente en áreas de navegación internacional, puertos y donde haya áreas marinas protegidas que sean vulnerables.*

*Cada año se destaca un aspecto particular de esta actividad. Este año el tema elegido es LA HIDROGRAFÍA-SUSTENTANDO LA ECONOMÍA AZUL, refiriéndose a la suma de todas las actividades económicas asociadas a los océanos, los mares, los puertos y las zonas costeras.*

*El desarrollo seguro y eficaz de esta economía depende del conocimiento profundo del medio marino. El trabajo del colectivo hidrográfico es fundamental para la difusión de este conocimiento.*

*El Instituto Hidrográfico de la Marina, como miembro de la OHI y en el marco de la celebración del Día Mundial de la Hidrografía, ha elaborado un programa de conferencias y actividades para conmemorar este día.*

A lo largo del día tendrán lugar distintas conferencias y visitas en la Sala de conferencias de la Escuela de Hidrografía (aforo 40 personas) y en la Sala de Exposiciones del Archivo Histórico (grupos máx. 40 personas) respectivamente, con el siguiente horario:

- 09:00 h** Primer turno de visita a la Sala de Exposiciones del Archivo Histórico.
- 09:45 h** Estudios de la marea en el litoral español.  
**CF. Juan A. Rengel Ortega.**
- 10:30 h** Segundo turno de visita a la Sala de Exposiciones del Archivo Histórico.
- 11:15 h** La carta náutica: herramienta fundamental para la seguridad marítima.  
**CF. Álvaro Guitart del Prado.**
- 12:15 h** Campañas para los levantamientos hidrográficos del Instituto Hidrográfico de la Marina.  
**CF. José Daniel González-Aller Lacalle.**
- 13:00 h** Tercer turno de visita a la Sala de Exposiciones del Archivo Histórico.
- 14:00 h** Clausura: Reunión conmemorativa del CCXV Aniversario de la Hidrografía Española para todo el personal hidrógrafo.

# "La hidrografía es sustento de la economía asociada al mar"

El director del Instituto Hidrográfico destaca el papel de este organismo en la cartografía mundial

J.M. SÁNCHEZ REYES CÁDIZ | ACTUALIZADO 20.06.2013 - 10:14

Del papel a las cartas digitales. El Instituto Hidrográfico de la Marina, próximo a cumplir 70 años de historia, mantiene la responsabilidad a nivel de Estado de la elaboración de la cartografía náutica. ¿Tradición o progreso? El director del Instituto, el capitán de navío Juan Ramón Fernández de Mesa Temboury, tiene claro que el papel "no desaparecerá", porque así se establece "por normativa nacional", y que la



*El director del Instituto Hidrográfico, José Ramón Fernández de Mesa, ante un gran mapa mundi.*

institución que dirige seguirá evolucionando en el aspecto digital. Es decir; la convivencia de ambos formatos tendrá vigencia en el tiempo. El Instituto, que depende, dentro de la Armada Española, de la Fuerza de Acción Marítima y de la Flota, celebrará mañana el Día Mundial de la Hidrografía abriendo sus puertas a la ciudadanía. Allí se respira historia con mayúsculas. El Archivo Histórico, por ejemplo, es una joya en materia cartográfica. No en vano, el Instituto tiene su origen en la Casa de Contratación, fundada en 1503 por los Reyes Católicos, donde se dieron los primeros pasos de la cartografía. Y fue en 1942 cuando se independizó del Observatorio de Marina de San Fernando y se estableció en la capital gaditana.

Explica Fernández de Mesa que el objetivo principal de la celebración de mañana es destacar "la importancia de la hidrografía como sustento de la llamada 'economía azul', refiriéndose a la suma de todas las actividades económicas asociadas a los océanos, mares, puertos y zonas costeras". El 71 por ciento de la superficie del planeta son océanos y mares y más del 90 por ciento del comercio mundial se realiza a través del mar. Un ejemplo de la importancia de la hidrografía en lo económico es la presencia del Instituto en el Plan Oceanográfico e Hidrográfico de Investigación de la Zona Económica Exclusiva junto al Observatorio de Marina de San Fernando. "Un mes al año, el buque Hespérides se encarga de obtener un conjunto de datos geofísicos, además de elaborar la cartografía oceanográfica, geofísica e hidrográfica de toda la Zona Económica Exclusiva Española", apunta. Es una forma de sustanciar los derechos soberanos del Estado Español sobre la exploración y explotación de sus recursos. Las jornadas servirán para que la ciudadanía tome conciencia del papel tan importante que el Instituto Hidrográfico, en nombre de España, juega a nivel internacional. Así, representa al país en la Convención de la Organización Hidrográfica Internacional, creada en 1921. Se trata de la autoridad mundial competente en Hidrografía y cartas náuticas, y España es uno de los países fundadores. "También pertenecemos a la Comisión

Hidrográfica de la Antártida, que precisamente se reunirá en la provincia de Cádiz en el mes de diciembre para celebrar su XIII Reunión", añade el director del Hidrográfico. No queda aquí la presencia del Instituto fuera de España, pues forma parte de la Comisión Hidrográfica del Atlántico Oriental y de la Comisión de Historia del Mar Mediterráneo y el Mar Negro. "Ahí somos responsables de la emisión de radioavisos náuticos en estos mares", destaca.

A nivel nacional, el Instituto colabora con otras instituciones en la Campaña de Ampliación de la Plataforma Continental Española, en las costas cantábrica y gallega, y ahora en el proceso de adquisición de datos de la misma Plataforma a poniente de las Islas Canarias. "La Plataforma es una continuación del continente, pero sumergida, que otorga determinados derechos sobre la zona. Es la superficie de un fondo submarino próximo a la costa y situado entre esta y profundidades inferiores a 200 metros", apunta. Tras los muros del Instituto se elaboran también libros de faros, anuarios de mareas y derroteros, que son descripciones de la costa y de los puertos útiles para los navegantes. La institución, desconocida para el gran público, atesora unas responsabilidades que merecen la pena conocerse.



## WORLD HYDROGRAPHY DAY IN THE USA

### Contact:

Dawn Forsythe, Office of Coast Survey  
[dawn.forsythe@noaa.gov](mailto:dawn.forsythe@noaa.gov)  
301-713-2780 x144  
cell: 240-429-6125

## NOAA observes World Hydrography Day

*Day has special significance as employees, officers, and ship crews honor lost crew members from the USCS Robert J. Walker*

Today, June 21, is World Hydrography Day. Hydrographic offices in over 80 maritime nations observe this day every year, since 2005. It is our special day to tell the public what hydrography is, and how it is employed to make navigation safer. Simply, hydrography is the science we use to obtain the data needed to create nautical charts. NOAA's 200-year history is proof positive that those charts - and therefore hydrography - are a national investment that pays off daily with navigation safety, efficiency, and coastal protection from accidents at sea.

*But today's observation of World Hydrography Day is more profound. It is personal to every person who works in or supports hydrography in the United States.*



It was 153 years ago, to the day, that the U.S. Coast Survey experienced the largest single loss of life in our history. In the early morning hours of June 21, 1860, on stormy seas, the U.S. Coast Survey Steamer *Robert J. Walker* was hit by a commercial schooner when she was transiting from Norfolk to New York, on a hydrographic mission. The ship sank quickly, and twenty crew members died.

NOAA honored those lost crew members today, in a memorial at sea and at a gathering at NOAA's Silver Spring, Maryland, complex. We'd like to share our photo essay from today: [NOAA observes World Hydrography Day by honoring lost crew members from our history.](#)



*In 1852, W.A.K. Martin painted this picture (presented here in black & white) of the Robert J. Walker*

NOAA Office of Coast Survey is the nation's nautical chartmaker. Originally formed by President Thomas Jefferson in 1807, Coast Survey updates charts, surveys the coastal seafloor, responds to maritime emergencies, and searches for underwater obstructions that pose a danger to navigation.