



THE VALUE of HYDROGRAPHIC INFORMATION and its INFLUENCE

By
THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION

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IHO MISSION



- *“to facilitate the provision of adequate and timely hydrographic information for world-wide marine navigation and other purposes, through the co-ordination of the endeavours of national hydrographic offices”*

IHO OBJECTIVES



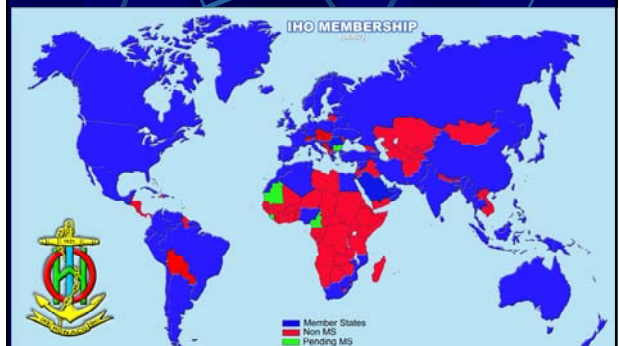
- The **co-ordination** of the activities of national hydrographic offices ;
- The greatest possible **uniformity** in nautical charts and documents;
- The adoption of reliable and efficient **methods** of carrying out and exploiting hydrographic surveys;
- The **development of the sciences** in the field of hydrography and the techniques employed in descriptive oceanography.

IHO STRUCTURE



- CONVENTION AND REGULATIONS
- INTERNATIONAL HYDROGRAPHIC CONFERENCE
- INTERNATIONAL HYDROGRAPHIC BUREAU
- REGIONAL HYDROGRAPHIC COMMISSIONS
- COMMITTEES, COMMISSIONS & WORKING GROUPS

IHO Member States – October 2007 80 countries



REGIONAL HYDROGRAPHIC COMMISSIONS



CAPACITY BUILDING



WITH RESPECT TO THE IHO, "CAPACITY BUILDING" IS DEFINED AS THE PROCESS BY WHICH THE ORGANIZATION ASSESSES AND ASSISTS IN SUSTAINABLE DEVELOPMENT AND IMPROVEMENT OF THE STATES, TO MEET THE OBJECTIVES OF THE IHO AND THE HYDROGRAPHY, CARTOGRAPHY AND MARITIME SAFETY OBLIGATIONS AND RECOMMENDATIONS DESCRIBED IN UNCLOS, SOLAS V AND OTHER INTERNATIONAL INSTRUMENTS.

Phases for Hydrographic Capacity Building Development



- Phase One**
Collection and circulation of nautical information needed to keep in force charts and publications updated.
- Phase Two**
Capacity building to conduct hydrographic surveys
- Phase Three**
Production of charts and publications.

ESTADOS MIEMBROS EN LA ZONA DE CENTROAMERICA Y CARIBE



DEFINITION OF HYDROGRAPHY



is that branch of applied sciences which deals with the measurement and description of the features of the seas and coastal areas for the primary purpose of navigation and all other marine purposes and activities, including – inter alia- offshore activities, research, protection of the environment, and prediction services. (Source: IHO)

DEFINITION OF NAUTICAL CHART OR NAUTICAL PUBLICATION



'Nautical chart or nautical publication is a special-purpose map or book, or a specially compiled database from which such a map or book is derived, that is issued officially by or on the authority of a Government, authorized Hydrographic Office or other relevant government institution and is designed to meet the requirements of marine navigation. (*)'
(Source: SOLAS)

From an Economic perspective Charts and Publications are:

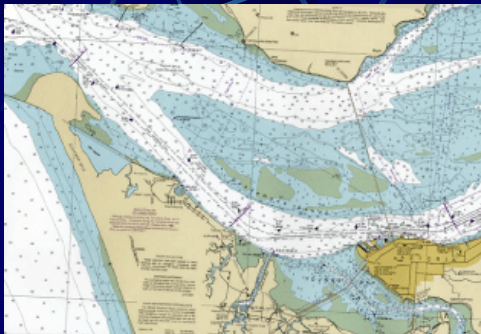


- AN INTERMEDIATE GOOD
- ALMOST ALWAYS A GOOD FROM THE PUBLIC SECTOR
- A PUBLIC GOOD OR A PUBLIC SERVICE
 - NO COMPETENCE IN CONSUMPTION
 - MUST EXIST
 - CANNOT BE REFUSED

HYDROGRAPHIC INFORMATION OF MAIN VALUE



Coastline	Coordinates
Currents	Depths
Geographic description	Limits
Nav aids	Sea bottom
Tides, Levels and datum	Wrecks



Paper
Nautical
Chart



Paper
Nautical
Chart



An
ECDIS
display

SOLAS V, REGULATION 9 (2002) « Hydrographic Services »



Contracting Governments undertake to arrange for the collection and compilation of hydrographic data and the **publication, dissemination and keeping up to date** of all nautical information necessary for safe navigation.

SOLAS V, REGULATION 9 (2002) « Hydrographic Services »



In particular,

Contracting Governments undertake to co-operate in carrying out, as far as possible, the following **nautical and hydrographic services**, in the manner most suitable for the purpose of aiding navigation:

SOLAS V, REGULATION 9 (2002) « Hydrographic Services »



- 2.1 To ensure that hydrographic surveying is carried out, as far as possible, adequate to the requirements of safe navigation;
- 2.2 To prepare and issue official nautical charts, sailing directions, lists of lights, tide tables and other official nautical publications, where applicable, satisfying the needs of safe navigation;
- 2.3 To promulgate notices to mariners in order to keep official nautical charts and publications, as far as possible, up to date;
- 2.4 To provide data management arrangements to support these services.

HYDRO INFORMATION	COAST LINE	COOR- DINATES	CUR- RENTS	DEPTH	GED- IME- CRIP- TION	LIMITS	NAVAID S	SEA PHOTO M	TIDES, LEVELS & FATHM	WRECK S
AQUICULTURE	X	X	X	X	X	X	X	X	X	X
CABLE/PIPE LAYING	X	X	X	X	X	X	X	X	X	X
COASTAL ZONE MANAGEMENT	X	X	X	X	X	X	X	X	X	X
DEFENSE	X	X	X	X	X	X	X	X	X	X
DUMPING	X	X	X	X	X	X	X	X	X	X
COASTAL ENGINEERING	X	X	X	X	X	X	X	X	X	X
ENVIRONMENT	X	X	X	X	X	X	X	X	X	X
FISHERIES, FISHING	X	X	X	X	X	X	X	X	X	X
HEALTH/RED TIDES	X	X	X	X	X	X	X	X	X	X
MARINE DELIMITATION	X	X	X	X	X	X	X	X	X	X
MARINE SCIENTIFIC	X	X	X	X	X	X	X	X	X	X
MARITIME TRANSPORT / NAVIGATION	X	X	X	X	X	X	X	X	X	X
NATURAL HAZARD	X	X	X	X	X	X	X	X	X	X
REPORTING	X	X	X	X	X	X	X	X	X	X
RESOURCES	X	X	X	X	X	X	X	X	X	X
SPORTS	X	X	X	X	X	X	X	X	X	X
REAL ESTATE	X	X	X	X	X	X	X	X	X	X
SAFETY OF LIFE AT SEA	X	X	X	X	X	X	X	X	X	X
SPRINTS	X	X	X	X	X	X	X	X	X	X
TOURISM	X	X	X	X	X	X	X	X	X	X

INFLUENCE IN THE DECISION MAKING PROCESS



AQUICULTURE
CZM
DUMPING
ENVIRONMENT
HEALTH/RED TIDES
TRANSPORT/ NAV
MNLRS
REAL ESTATE
SPORTS

CABLE/PIPE LAYING
DEFENSE
COASTAL ENGINEERING
FISHERIES,MLRS
MARINE DELIMITATION
NATURALHAZARD/MODEL.
PORTS
SAFETY OF LIFE AT SEA (SAR)
TOURISM

CONCLUSIONS (1/4)



The International Hydrographic Organization provides all maritime countries the opportunity to benefit from its experience in improving or establishing national hydrographic capabilities. Due to the incipient or lack of national hydrographic structure in several countries in Central America, countries as for example Costa Rica, might wish to consider approaching to the IHO bodies, to get advice on how the provision of Hydrographic Services as in SOLAS Regulation 9 could be achieved.

CONCLUSIONS (2/4)



Capacity building is a key issue to achieve development. IHO structure considers regional hydrographic commissions to address regional problems for which a collective solution could be explored, identified and put in place. Countries in Central America should strongly consider participating in the activities of the Meso American and Caribbean Sea Hydrographic Commission and apply for advice and technical support to develop its hydrographic capabilities.

CONCLUSIONS (3/4)



Hydrographic Information the traditional representation of which constitutes the nautical chart or nautical publication, has **an immense value**. The concept that hydrographic information only serves the purpose of producing these two products is wrong. Being the main purpose to contribute to safety to navigation and protection of the marine environment, **hydrographic information strongly contributes to many other initiatives of economic interest.**

CONCLUSIONS (4/4)



The lack of hydrographic information precludes national authorities to adopt the best possible technical and administrative regulations aiming at the development and welfare of their citizens in a sustainable manner. Establishing and funding a national hydrographic Agency, hydrographic surveys and related studies shall not be considered as expenditure but as **an investment, and a real national asset of strategic importance.**



**THANKS
FOR YOUR ATTENTION**

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