



**INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MESO AMERICAN & CARIBBEAN SEA HYDROGRAPHIC COMMISSION**



CAPACITY BUILDING PLAN
Programme document for the period 2010-2012

1. INTRODUCTION

1.1. Rationale

It is estimated that over 30% of the world's crude oil passes through the Caribbean which is home to over 50% of the world's cruise shipping. In addition, the Caribbean endures a hurricane season from June to November; the storms can and do leave a trail of devastation on the islands and their coasts. For these reasons, it is crucial that SOLAS Contracting Governments undertake hydrographic surveys as and when required, that they arrange for the compilation and publication of hydrographic data, the dissemination and keeping up to date of all nautical information necessary for safe navigation.

The 4th Extraordinary International Hydrographic Conference approved as the International Hydrographic Organization (IHO) Strategic Directions:

Facilitate global coverage and use of official hydrographic data, products and services

The IHO will strive to achieve global coverage and availability of high quality official hydrographic data, information, products and services necessary for safety of navigation at sea and for non-navigational uses, e.g. by means of the developing spatial data infrastructure, through:

- coordinating effectively Member State activities for the provision of coherent, standardized and well coordinated hydrographic services, in accordance with regulation 9, of Chapter V of the SOLAS Convention;
- enhancing and supporting cooperation on hydrographic activities among States on a regional basis under the aegis of the Regional Hydrographic Commissions;
- expanding membership of the IHO;
- encouraging and supporting the establishment of new Hydrographic Offices;
- encouraging and supporting the development and promotion of integrated navigation systems and geospatial data infrastructures;
- promoting the use of new technologies and the opportunities offered by globalization and international cooperation.

Raise global awareness of the importance of hydrography

The IHO will champion the awareness at national, regional and global levels of the importance and benefits of hydrography and the provision of hydrographic services for all marine activities, through:

- ensuring that the role and responsibilities of national Hydrographic Offices are clearly understood at all levels in the marine and public communities;
- supporting and promoting the benefits of national Hydrographic Offices and hydrographic programmes;
- bringing the importance of hydrography on issues affecting safety of navigation at sea, protection of the marine environment, maritime security and economic development to the attention of International Organizations, funding agencies, national governments, maritime stakeholders and others;
- preparing and promoting education and outreach programmes which involve fostering a well informed citizenry and creation of a public awareness of the importance of hydrography and its role in daily life.

The Strategic Paper of the IHO Capacity Building Sub-Committee classifies Hydrographic Services into three types:

- those which are in Phase 1: Collection and circulation of nautical information, necessary to maintain existing charts and publications up to date;
- those which are in Phase 2: Creation of a surveying capability to conduct coastal and offshore projects; and
- those which are in Phase 3: Produce charts and publications independently.

Nowadays, the rapidly evolving technology has replaced old navigation paradigms and demands continuous investments in education and training so that the Hydrographic Services can continue to provide high quality products and services which satisfy new demands of the maritime community.

MACHC is aware of its Member States' efforts to provide quality service to the international maritime community in order to contribute to the safety and security of navigation and human life at sea as well as the preservation of the environment in its Region and, as part of the IHO community, to contribute with the achievement of the objectives and directions of the Organization.

1.2. Long term aims and objectives

The aims of the Plan are:

- a) to train officers, at various levels, at least to ensure a much needed capability on hydrography and nautical cartography, particularly after natural disaster or other incidents which could affect water depths in harbors and approaches; and
- b) to comply with the IHO resolutions and guidelines regarding hydrographic and nautical cartography activities.

The long term objectives of this Plan are:

- a) to instruct officers in the region on the methods of carrying out hydrographic surveys, on the principles used to scheme nautical charts to improve safety of navigation on contemporary technologies;
- b) to promote the establishment of Hydrographic Services (HS) and the evolution of CB Phases of the established ones.

1.3. Priorities

Despite the gamma of need existed in the Region, for the period of 2010 to 2012, priorities should be set in the sequence of the following list, the first of which are the highest:

- activities which may promote the establishment of HS;
- activities which may improve the capacity of existing HS in Phase 1;
- activities which may concur with the IHO commitment with ENC "adequate coverage";
- activities which may improve the capacity of existing HS in Phase 2; and
- activities which may improve the capacity of existing HS in Phase 3.

The current hydrographic capacity status of Countries / Territories of the Region is in Annex **A**.

1.4. Methodology and Procedures

This Plan must be reviewed each year, and adjustments made as necessary.

Each year the Commission will decide responsibilities for the programmed events of the subsequent year.

The nominated events coordinators will send to the Chair, no later than January 31st of each year the detailed event project. The projects must be written in the standards established by the IHO CBSC (see Annex **B**).

Projects supported by IHO CB Fund must follow the IHO CBSC procedures published at the IHO website.

The Chair will check the proposed projects and, if requesting IHO CB Fund support, will send them to the IHO CBSC Chair and Secretary no later than MARCH 15th, otherwise, will take the appropriate action.

2. Activities

	Activity	Expected output	Objectives
2.1.	<u>Technical visits Type 1</u> Visit to government high authorities	To mobilise high governmental authorities to give importance to hydrographic activities.	To establish a Hydrographic Service in those countries where there was no responsible organ for hydrography activities.
2.2.	<u>Technical visits Type 2</u> Visit to maritime / port authorities	To mobilize 2 nd and 3 rd staff governmental authorities to develop hydrographic activities.	To establish a Phase 1 Hydrographic Service.
2.3.	<u>MSI Type 1</u> Training on establishment of MSI structure and basic MSI procedures.	To establish a core group of trained persons to deal with MSI.	To establish capacity in MSI so that Maritime Authorities can provide high quality services to comply with the basic requirements for safety of navigation in the area.
2.4.	<u>MSI Type 2</u> Training on update MSI procedures and organizational management.	To improve the skills of a group of professionals in MSI	To improve management capacity on MSI and to promote mutual assistance in the region.
2.5.	<u>Hydrography Type 1</u> Training on the establishment of a hydrography sector and basic hydrographic theory (single beam).	To train a group of professionals in the basics of hydrography theory and management for hiring hydrographic services.	To establish capacity in the mentioned fields so that Maritime authorities can provide the necessary quality products and services to comply with the basic requirements for safety of navigation in the area.
2.6.	<u>Hydrography Type 2</u> Training on basic hydrographic practice (single beam) and data processing.	To train a group of professionals in the basics of hydrography to be capable to produce basic hydrographic services.	To establish capacity in the mentioned fields so that Maritime authorities can provide high quality products and services to comply with the requirements for safety of navigation in the area.
2.7.	<u>Hydrography Type 3</u> Training on advanced hydrographic practice (multibeam, acquisition and processing) and management skills.	To train a group of professionals in advanced hydrography to be capable to produce advanced hydrographic services (multibeam).	To improve the capacity in the mentioned fields so that Maritime authorities can provide high quality products and services for safety of navigation in the area.

	Activity	Expected output	Objectives
2.8.	<u>Cartography Type 1</u> Training on basic nautical cartography (paper chart production).	To train a group of professionals in basic of nautical cartography to be capable to produce basic cartographic documents.	To provide the elements necessary to the progress in the provision of standardized products and services to comply with the request of safety of navigation and international conventions signed.
2.9.	<u>Cartography Type 2</u> Training on advanced nautical cartography (digital charts).	To train a group of professionals in basic techniques of electronic navigational charting.	To provide the elements necessary to the progress in the provision of standardized products and services to comply with the request of safety of navigation and international conventions signed.
2.10.	<u>Cartography Type 3</u> Training on nautical chart production using the Hydrographic Production Database (HPD)	To train a group of professionals in advanced techniques of electronic navigational charting.	To provide the elements necessary to the progress in the provision of standardized products and services to comply, in a high level, with the request of safety of navigation and international conventions signed.

3. Capacity Building Program

The program of capacity building activities for the period 2011 – 2012 is detailed in Annex C.

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Annex A to CB Plan

MACHC Counties / Territories Capacity Building Phase Stage

Reference: http://www.iho-ohi.net/mtg_docs/CB/CBA_TechnicalVisits.htm

	Country / Territory	CB Phase*	Last TV	Obs.
1	Antigua & Barbuda	0	2006	Phase 3 provided by UKHO
2	Bahamas	0	2006	Phase 3 provided by UKHO
3	Barbados	1	2006	Phase 3 provided by UKHO
4	Belize	0	2006	Phase 1 status unknown Phase 3 provided by UKHO
5	Brazil	3	2008	
6	Colombia	3		
7	Costa Rica	?		
8	Cuba	3		
9	Dominica	?	2006	Phase 3 provided by UKHO
10	Dominican Republic	?		Phase 2 provided by US/UKHO Phase 3 provided by US/UKHO
11	El Salvador	?	2005	Phase 2 provided by US/UKHO Phase 3 provided by US/UKHO
12	France - French Guyana	3		All Phases provided by SHOM
13	France - Guadelupe & Martinica	3		All Phases provided by SHOM
14	Grenada	0	2006	Phase 3 provided by US/UKHO
15	Guatemala	1	2006	Phase 1 status unknown Phase 2 provided by US Phase 3 provided by UKHO
16	Guyana	0		Phase 3 provided by UKHO
17	Haiti	0	2009	Phase 2 provided by US Phase 3 provided by UKHO
18	Honduras	1	2006	Phase 1 status unknown Phase 3 provided by UKHO
19	Jamaica	1	2006	Phase 3 provided by UKHO
20	Mexico	3		
21	Netherlands - Antilles & Aruba (Leeward)			All Phases provided by NHO
22	Netherlands - Antilles (Windward)			All Phases provided by NHO
23	Nicaragua	?	2005	Phase 3 provided by US/UKHO
24	Panama	?	2005	Phase 2 provided by US Phase 3 provided by UKHO
25	St. Kitts & Nevis	1	2006	Phase 3 provided by UKHO
26	St. Lucia	1	2006	Phase 3 provided by UKHO
27	St. Vincent & Grenadines	0	2006	Phase 3 provided by UKHO
28	Suriname	2	2007	Phase 3 provided by NHO
29	Trinidad & Tobago	1	2006	Phase 3 provided by UKHO
30	UK - Anguilla	3	2006	All Phases provided by UKHO
31	UK - British Virgin	?	2006	Phase 3 provided by UKHO

* Phase 0 indicates no capacity on hydrography

32	UK - Cayman	2	2006	Phase 1 status unknown Phase 3 provided by UKHO
33	UK - Monserrat	3	2006	All Phases provided by UKHO
34	UK - Turks & Caicos	?	2006	Phase 3 provided by UKHO
35	USA - Navassa	?		Phases 2 and 3 provided by US
36	USA - Puerto Rico & US Virgin	?		Phases 2 and 3 provided by US
37	United States of America	3		
38	Venezuela	3	-	



Annex B to CB Plan

PROJECT SUBMISSION MODEL

IDENTIFICATION

Project Number :

Project Name:	
Submitting RHC/Country:	
Date:	
Institution executing the project:	
Name of responsible:	
Address:	
Telephone:	
Fax:	
e-mail:	

GENERAL SPECIFICATIONS

(Please provide detailed information in Annex of no more than three pages)

Background information	
<i>Justification of the project</i>	

<i>Countries involved</i>	
Exposition of the problem	
General objective	
Specific objectives	
Outputs/Products	
Other deliverables	
Achievements and awaited benefits	

Schedule of activities	
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RESOURCES

Contribution by countries involved	
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Contribution by other parties	
Contribution expected from CBCFund	
Total Cost (euros)	
Breakdown of costs	

From CBC Fund (item and amount)	
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PROJECT SUMMARY

Sponsor RHC	Year of Execution	Country/ Countries involved	Priority/ Status	Project Name	Project Objective	Benefits	Assistance required	Cost	Allocation and Priority (to be filled by CBC)	Contact Person

Name and Signature of the RHC Chairman

Annex C to CB Plan

Capacity Building Program for the period 2011 – 2012

2011

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
Technical Visit Type 1	Costa Rica El Salvador Panama	TBD	TBD	
Technical Visit Type 2	Antigua & Barbuda Barbados Grenada St. Kitts & Nevis St. Lucia Trinidad & Tobago	TBD	TBD	All had visits in 2006 – no further action required
MSI Type 1	Antigua & Barbuda British Virgin Islands St Kitts & Nevis Grenada Honduras	MACHC CB Coordinator	16-20 May 2011	Training will take place at DHN Niteroi, Rio de Janeiro, Brazil
MSI Type 2	NAVAREA Coordinators, MSI providers, and British Virgin Islands, Colombia, Jamaica, Suriname	TBD	TBD	Project already submitted by the SWAtHC including participants of MACHC, SWAtHC, and SEPHC
Hydrography Type 1	Antigua Barbados British Virgin Islands Grenada St Kitts & Nevis	TBD	TBD	
Hydrography Type 2	Antigua Barbados British Virgin Islands Belize El Salvador Guatemala Grenada Honduras St Kitts & Nevis	TBD	TBD	
Hydrography Type 3	HS in Phase 3, Barbados British Virgin Islands Jamaica Suriname Venezuela	TBD	TBD	Project on “hydrographic database” already submitted by the SWAtHC including participants of MACHC, SWAtHC, and

				SEPHC
Cartography Type 1	Barbados British Virgin Islands Cuba El Salvador Honduras Mexico Suriname St Kitts & Nevis	TBD	TBD	
Cartography Type 2	Barbados British Virgin Islands Cuba El Salvador Jamaica Honduras Mexico Venezuela St Kitts & Nevis Suriname	TBD	TBD	
Cartography Type 3	Colombia Venezuela			

2012

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
Technical Visit Type 1	Guyana Antigua & Barbuda Bahamas	TBD	TBD	Antigua & Barbuda and Bahamas had visit in 2006
Technical Visit Type 2	Dominica Dominican Republic Grenada	TBD	TBD	Dominica and Grenada had visit in 2006
MSI Type 1	All HS in Phase 1	TBD	TBD	
Hydrography Type 1	Haiti Jamaica Panama	TBD	TBD	
Hydrography Type 2	3 HS in Phase 2	TBD	TBD	
Cartography Type 1	3 HS in Phase 2			
Cartography Type 2	3 HS in Phase 3	TBD	TBD	
Cartography Type 3	All HS in phase 3	TBD	TBD	
Hydrography (Inland Waters)	TBD	Brazil (Belem City)	2 weeks (1 st Semester 2012)	