

**INTERNATIONAL HYDROGRAPHIC ORGANIZATION
MEDITERRANEAN AND BLACK SEAS HYDROGRAPHIC
COMMISSION (MBSHC)**



**CAPACITY BUILDING PLAN FOR 2018-2020
(Updated version as of May 2018)**

1. INTRODUCTION

1.1. Rationale

The Mediterranean and Black Seas Hydrographic Commission (MBSHC) region is not a large sea area but it is the biggest HC by number of members with 27 coastal states.

Mediterranean Sea is among the world's busiest waterways, accounting for 15% of global shipping activity by number of calls and 10% by vessel deadweight tonnes. Almost two-thirds of the traffic was internal, one-quarter was semi-transit voyages of ships mainly of small size, while the remainder was transit voyages, mainly by large vessels travelling between non-Mediterranean ports through the Mediterranean's various straits: The Straits of Gibraltar, the Straits of İstanbul and Çanakkale and the Suez Canal (data provided by REMPEC).

Capacity Building activities raise the awareness and support the establishment of hydrographic activities for the coastal states which has no hydrographic services and enhance the quality of existing hydrographic activities and collaboration in the region.

The IHO Capacity Building Strategy classifies the development of hydrographic services in coastal States into three phases:

- a) Phase 1: collection and circulation of nautical information, necessary to maintain existing charts and publications up to date;
- b) Phase 2: creation of a surveying capability to conduct coastal and offshore projects; and
- c) Phase 3: produce paper charts, ENC and publications independently.

Coastal States have treaty obligations under the IMO Convention on Safety of Life at Sea (SOLAS) and the IHO/MBSHC Capacity Building Plan aims at directing the efforts to assist States in meeting these obligations. To achieve this a national understanding and coordination effort is required noting that:

- i) resources (human, time, finance etc.) are limited, consequently prioritization is a fundamental issue;
- ii) planning must be realistic; and
- iii) commitment from coastal States in working with the IHO/MBSHC is a key element to develop quality hydrographic service to the international maritime community.

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.

1.2. Aims and objectives

The aims of this Plan are:

- a) to ensure a basic level of MSI is established in all coastal States to produce Local/Coastal/NAVAREA Warnings, communicate effectively with the charting authority and implement the MSI elements of GMDSS;
- b) to promote the establishment of Hydrographic Services (HS) and the evolution of CB Phases of the established ones;
- c) to train staff, at various levels, to ensure a much needed capability on hydrography and nautical cartography, including after natural disaster or other incidents which could affect water depths in harbors and approaches;
- d) to instruct staff in the region on the methods of carrying out hydrographic surveys, to improve safety of navigation through enhanced navigational products;
- e) to comply with the IHO resolutions and guidelines regarding hydrographic and nautical cartographic activities; and
- f) to ensure that hydrographic data and information are available to support the sustainable use of marine resources.

1.3. Priorities

Despite the breadth of need existing in the region, for the period of 2018 to 2020, priorities should be set in the sequence of the following list, the first of which are the highest:

- 0 - activities which may promote awareness of national hydrographic obligations;
- 1 - activities which may improve the capacity of existing HS in Phase 1;
- 2 - activities which may improve the capacity of existing HS in Phase 2;
- 3 - activities which may improve the capability of existing HS in Phase 3; and
- 4 - activities which go beyond Phase 3.

Item 2(Activities)below lists the activities to be supported and are linked to the Phases 0 to 3 listed above.

The current hydrographic capacity status of coastal States in the region is in **Annex A** and the assessment is made in accordance with the draft CB Procedure 11.

1.4. Methodology and Procedures

This Plan sets the goals for the period 2018 to 2020 and will be reviewed each year, and adjustments made as necessary. Each year the MBSHC will decide responsibilities for the programmed events of the subsequent year and will consider the plans and proposals from other RHCs to identify synergies that could benefit developing countries in the region.

The MBSHC Capacity Building Coordinator (Turkey) will send to the Chair, no later than 31 January of each year details of all planned projects. The projects to be supported by the IHO CB Fund must be written in accordance with the CB Procedures 1 and 4.

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 15 April of that year, otherwise, will take the appropriate action.

2. ACTIVITIES

2.1. Assessment and Awareness

Phase	Activity	Project Objective	Target Audience
0.1	<u>High-level visits</u> High level visit to governmental authorities	To raise government awareness of their SOLAS treaty obligations	Related Ministries and Heads of national agencies, particularly governmental decision makers
0.2	<u>Technical visits</u> Technical assessment and advice visit	Provide advice to identify how coastal states meet their hydrographic and MSI responsibilities	Maritime sector, national agencies, stakeholders and decision makers
0.3	<u>Technical implementation visits</u> A follow up visit to the types 0.1 and 0.2 listed above	To audit the state of recommendations made as a result of previous technical visits and support further development	Maritime sector, national agencies, stakeholders and decision makers
0.4	<u>Seminar on Raising Awareness of Hydrography</u>	Seminars to promote and raise awareness on the importance of Hydrography as part of the national economic infrastructure and key element for social development.	Maritime sector, national agencies, stakeholders and decision makers

2.2. Short courses

Phase	Activity	Project Objective	Target Audience
1.1	<u>MSI Course (3 days)</u> Training on establishment of MSI structure and basic MSI procedures	To establish a core group of trained persons to deal with MSI	MSI Practitioners
1.2	<u>Phase 1 Skills (5 days)</u> An introduction to the assessment and promulgation of navigationally significant data	To provide a core group with the skills and knowledge to assess and promulgate navigationally significant information to the wider maritime community (this course supports the MSI course)	MSI Practitioners
1.3	<u>MSI Workshop (3 days)</u> Assessment and implementation of effective measures to establish MSI infrastructure.	To provide a core group with the skills and knowledge to assess and implement effective measures to establish MSI infrastructures, following formal MSI Courses.	MSI Practitioners

Phase	Activity	Project Objective	Target Audience
2.1	<u>Basic Hydrographic Survey Course (10 days)</u>	To provide awareness of national hydrography, hydrographic surveying and nautical cartography, and skills to specify contract support.	Maritime Sector Decision Makers
2.2	<u>Port and Shallow Water Survey Course (5 days)</u>	A workshop to aid exchange of information and ideas about the challenges faced by port and shallow water surveyors in the region	Port Surveyors
2.3	<u>MBES Processing (5 days)</u>	To train a group of hydrographic surveyors the techniques required to post-process MBES data	Hydrographic Practitioners
2.4	<u>MSDI and Data Management (5 days)</u>	To give participants an understanding of spatial data infrastructures (SDI) for the provision of basic geospatial data	Government Planners
2.5	<u>Tides and Water Level Workshop (5 days)</u>	To provide fundamental knowledge and understanding of tides and water level, and their applications for hydrographic surveying and mapping activities	Hydrographic Practitioners
2.6	<u>Seabed Classification Workshop (5 days)</u>	To provide a group of professionals with the skill and knowledge to use acoustic techniques to map extensive seabed surfaces and to determine the products of seabed mapping	Hydrographic Practitioners
3.1	<u>Basic ENC and ENC Production course (10 days)</u>	To train a group of professionals with a practical introduction to S-57 data	Cartographic Practitioners
3.2	<u>ENC Production and QA (5 days)</u>	To train a group of professionals to verify and validate S-57 data	Cartographic Practitioners
3.3	<u>MSDI and Data Assessment (5 days)</u>	To give participants an understanding of spatial data infrastructures (SDI) for data assessment and cartographic production	Government Planners
4.1	<u>Law of the Sea Workshop (5 days)</u>	To teach participants the basic technical principles applicable to maritime boundary delimitation. The delegates should be from technical hydrographic or cartographic backgrounds	Maritime Sector Decision Makers
4.2	<u>Tsunami inundation mapping workshop (5 days)</u>	To improve the modelling and presentation of regional tsunami inundation maps	Maritime Sector and emergency planning

2.3. Long courses

Long courses at Category "A" and Category "B" levels for both Hydrographic Surveying and Nautical Cartography are provided by the IHO and by other agencies. Coastal States will be notified by the MBSHC CB Coordinator about opportunities. Developing countries in need of long courses are also indicated in the CB Programme as follows:

Id.	Activity	Countries in need
HA	<u>Category "A" Hydrographic Programme</u>	5 (Georgia, Romania, Turkey, Algeria, Tunisia)
HB	<u>Category "B" Hydrographic Programme</u>	7 (Georgia, Romania, Malta, Algeria, Ukraine, Tunisia, Lebanon)
CA	<u>Category "A" Nautical Cartography Programme</u>	5 (Georgia, Romania, Algeria, Tunisia, Lebanon)
CB	<u>Category "B" Nautical Cartography Programme</u>	10 (Georgia, Romania, Malta, Italy, Turkey, Slovenia, Algeria, Tunisia, Lebanon, Montenegro)

2.4. On-the-job and onboard trainings

Opportunities for on-the-job and onboard trainings will be sought by the CB Coordinators in liaison with coastal States. States that have ships transiting in the region are invited to consider offering onboard training for developing countries in the region. Developing countries in need of on-the-job and onboard trainings are also indicated in the CB Programme as follows:

Id.	Activity	Countries in need
OJ	<u>On-the-job training</u>	Malta is requested on-the-job/onboard training on acquisition and post processing for the new multi-beam system.
OB	<u>Onboard training</u>	Lebanon needs on the job and onboard training.

2.5. Other trainings

No other training and development needs maybe identified which cannot be matched to the courses listed. These needs can be identified in textual form under "Other" in the CB Programme (item 3). "Other Trainings" are as follows.

Id.	Activity
Other	Workshop on Cartographic Data Management
Other	Workshop on S-100, S-1XX Products & Product Specifications and E- Navigation Workshop
Other	ENC Validation Course

3. Capacity Building Program

The program of capacity building activities for the period 2018 - 2020 is detailed in **Annex B**. The countries in need of training and education listed under items 2.3 and 2.4 are included in the programme.

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Annex A to MBSHC CB Plan

MBSHC Counties/Territories Capacity Building Phase Stage

International Hydrographic Organization						
Assessment of Capacity Building Phase Stage of Coastal States						
(Updated according to the responses as of 22 March 2018)						
N.	Coastal State/Territory	NHC/NHCC	Phase 1	Phase 2	Phase 3	Last TV
1	Albania	0	1	1	2	2016
2	Algeria (*)	-1	1 (**)	4	2/3	-
3	Bulgaria	0	4	4	4	N/A
4	Croatia	0	4	4	4	N/A
5	Cyprus	2	4	3	3	N/A
6	Egypt (*)	-1	4	4	2/3	-
7	France	2	4	4	4	N/A
8	Georgia	2	2	2	2	2014
9	Greece	0	4	4	4	N/A
10	Israel	1	4	2	2	2014
11	Italy	0	4	4	4	N/A
12	Lebanon	1	2	1	1/3	2014
13	Libya	-1	-1	-1	-1	-
14	Malta	0	4	2	3	2008
15	Monaco (*)	-1	3	3	3	N/A
16	Montenegro	0	2	1	2	2016
17	Morocco (*)	-1	-1	4	3	-
18	Palestinian Authority	-1	-1	-1	-1	-
19	Romania	1	2	2	2	2006
20	Russian Federation (*)	2	4	4	4	N/A
21	Serbia	-1	4	-1	-1	-
22	Slovenia	0	4	4	4	N/A
23	Spain (*)	-1	4	4	4	N/A
24	Syrian Arab Republic (*)	-1	-1	1/3	1/3	-
25	Tunisia	0	2/3	4	4	N/A
26	Turkey	2	4	4	4	N/A
27	Ukraine	0	4	4	4	N/A
(*)	The information in IHO Yearbook-5 (P-5), IHO ENC Coverage Catalogue and Status of Hydrographic surveying and Charting-IHO Online Publication (C-55) are used for the assessment.					
(**)	Only NAV Warnings through NAVAREA-III Coordinator. No coastal warnings.					

Annex B to MBSHC CB Plan

MBSHC Capacity Building Program for the period 2018 – 2020

2018				
	Activity	Beneficiary countries	Responsible	Observations
Phase	Technical and Advisory Visits			
0.3	Technical Implementation Visit	Georgia	MBSHC CB Coordinator	Team will comprise of Turkey and Ukraine, October 2018
0.3	Technical Implementation Visit	Albania	MBSHC CB Coordinator	Subject to the approval of CBSC. September/October 2018
	Technical Workshops, Seminars, Short Courses			
1.3	MSI Workshop (3 days)	Romania, Ukraine, Bulgaria, Lebanon, Georgia, Albania, Algeria (reserve Tunisia, Italy, Cyprus, Turkey)	MBSHC CB Coordinator	Planned to be held in Istanbul-Turkey, September 2018
2.2	Port and Shallow Water Survey Course (5 days)	Romania, Malta, Ukraine, Georgia, Cyprus, Tunisia (reserve Slovenia)	MBSHC CB Coordinator and Italy	Planned to be held in Genoa-Italy, September 2018

2019				
	Activity	Beneficiary countries	Responsible	Observations
Phase	Technical and Advisory Visits			
0.3	Technical Implementation Visit High-Level Visit is considered.	Lebanon	MBSHC CB Coordinator	Team and dates to be decided in MBSHC21 The level of the visit will be decided.
0.4	Seminar on Raising Awareness of Hydrography	Albania, Bulgaria, Lebanon, Libya, Azerbaijan, Turkmenistan, Kazakhstan	MBSHC CB Coordinator	Postponed.
	Technical Workshops, Seminars, Short Courses			
4.1	Law of the Sea Workshop (5 days) (CARIS LOTS based)	Morocco, Slovenia, Egypt, Turkey, Croatia, Tunisia, Romania, Montenegro, Malta, Georgia	MBSHC CB Coordinator	Planned participant list updated. The participants of the Workshop on Technical Aspects of Maritime Boundaries (2017) set as default. The rest of the participants set according to the regional requirements (ref. MBSHC Letter 03/18). Planned to be held in Istanbul-Turkey.
Other	ENC Validation Workshop (5 days) (advanced level)	Morocco, Cyprus, Slovenia, Egypt, Turkey, Ukraine, Tunisia, Romania, Montenegro, Malta, Georgia	MBSHC CB Coordinator	Planned according to the regional requirements (ref. MBSHC Letter 03/18). The participants of the Workshop on ENC Production and Distribution (2017) set as default. The rest of the participants set according to the regional requirements (ref. MBSHC Letter 03/18). Planned to be held in Istanbul-Turkey.

2020				
Phase	Activity	Beneficiary countries	Responsible	Observations
Technical and Advisory Visits				
0.2	Technical assessment and advice visit	Syrian Arab Republic	Turkey	Team and dates to be decided in MBSHC
Technical Workshops, Seminars, Short Courses				
3.2	ENC Production and QA (5 days)	Romania, Malta, Ukraine, Georgia	MBSHC CB Coordinator	Most probably be cancelled due to similar trainings (Workshop on ENC Production and Distribution (2017), Workshop on ENC Validation (2018, subject to the approve by CBSC)).
Other	Cartographic Data Management Workshop (based on CARIS HPD)	Lebanon (Membership expected), Tunisia, Georgia, Malta, Romania, Morocco, Montenegro, Egypt, Turkey, Azerbaijan (Membership expected)	MBSHC CB Coordinator	Planned to be held in Turkey.
Other (Considered as Phase-1)	Workshop on S-100, S-1XX Products & Product Specifications and E-Navigation Workshop	Tunisia, Georgia, Malta, Romania, Italy, Morocco, Cyprus, Montenegro, Egypt, Turkey, and (Considered as Phase-1) Albania, Bulgaria, Lebanon, Libya, Azerbaijan, Turkmenistan, Kazakhstan	MBSHC CB Coordinator	Planned to be held in Turkey.