### INTERNATIONAL HYDROGRAPHIC ORGANIZATION

### CAPACITY BUILDING SUB-COMMITTEE (CBSC)

CBSC14 Meeting Abu Dhabi, 24-26 May 2016

### 2017 Capacity Building Management Plan (Annex B to the CBSC14 Report)

This document is prepared with the compilation of the submissions received from the Regional Hydrographic Commissions (Procedures 1 and 4) and modified and adopted by the CBSC14.

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Alberto Costa Neves Assistant Director CBSC Secretary IHB, 1 July 2016

## INTERNATIONAL HYDROGRAPHIC ORGANIZATION CAPACITY BUILDING SUB-COMMITTEE 2017 CAPACITY BUILDING MANAGEMENT PLAN

### Approved Projects for 2017

CB Phase	Number of projects submitted	Amount (Euros)	%
0	7	161 600	15,9
1	4	55 460	5,5
2	12	457 265	45,1
3	8	323 520	31,9
4	1	16 120	1,6
Total	32	1 013 965,00	100

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### Notes:

1. Support provided to States with GDP < 20.000 USD

2. Support to non-MS limited to Visits and Phase 1 only

RHC	Number of projects submitted	Amount (Euros)	%
EAHC	3	50 280,00	5,0
EAtHC	4	52 600,00	5,2
MACHC	3	39 927,00	3,9
MBSHC	2	25 200,00	2,5
NIOHC	4	46 974,00	4,6
RSAHC	2	24 640,00	2,4
SAIHC	1	14 859,00	1,5
SEPRHC	2	51 385,00	5,1
SWAtHC	3	60 100,00	5,9
SWPHC	4	149 000,00	14,7
IHO/ROK	3	304 000,00	30,0
Japan	1	195 000,00	19,2
Total	32	1 013 965,00	100,0

Spangar	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
ЕАНС	2017	EAHC Members	1	TFT Hydro	up a pool of Trainers in each EAHC Member State office so that they can conduct training for their respective office. This	trainingprogramme in a cost effective way. Greater	CB Funds for course fees, accommodation costs and return flights.	60 000 €	Mr. Junghyun KIM  This is a earmarked project and will not be shown in the Procedure 4 tab
ЕАНС	2017	EAHC Members	2	Hydrographic Survey for Disaster Management and Relief	survey and nautical chart preparation techniques for planning disaster	For MS to understand the usage of geographical space information for planning disaster management and maritime environmental preservation	CB Funds for course fees, accommodation costs and return flights.	23 040 €	Mr. Junghyun KIM
ЕАНС	2017	EAHC Members	3	Use of GNSS for tide correction for survey	GNSS/WADGP data for tide	To understand the principles and useof GNSS/WADGPS data for tide reduction.	CB Funds for course fees, accommodation costs and return flights.	23 040 €	Mr. Junghyun KIM
ЕАНС	2017	EAHC Members	4	Lidar and Satellite Derived Bathymetry Workshop	To introduce and share the multispectrum LiDAR and SDB as one of methods of determining bathymetry.	Introduction and sharing the principles and techniques of LiDAR and SDB.	CB Funds for course fees, accommodation costs and return flights.	23 040 €	Mr. Junghyun KIM
EAtHC	2017	Gambia	1	Technical visit		Provide guidance to Gambia to build up national hydrographic capability to meet national and international obligations		5 000 €	Eric Langlois (SHOM)
EAtHC	2017	France	2	MSI E-learning guided sessions.	-	Better access to MSI educationnal material, cost- efficiency related to MSI courses	Financial support to tutoring fees, platform host and domain fees	2 600 €	Eric Langlois (SHOM)
EAtHC	2017	France	3	HydroMOWCA study follow-up	the EAtHC CB programme	Funding the EAtHC CB Programme set by the HydroMOWCA study	Fundings to perform on-site visits to funding bodies	15 000 €	Eric Langlois (SHOM)

Sponsor RHC	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
EAtHC	2017	Countries in the EAtHC region	4	Development of a survey specifications distance learning course	Develop Massive Open Online Course (MOOC) to provide distance learning on how to specify and contract surveys	A better provision of survey data nautical information to PCAs on contracting surveys	Funds for development, tutor training and tests	30 000 €	Eric Langlois (SHOM)
МАСНС	2017	Initially Bahamas, Belize, Costa Rica, Dominican Republic, El Salvador, Guyana, Haiti,	1	MSI Course	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	Improving maritime safety and compliance with SOLAS	Travel & Subsistence for 2 trainers and 9 students	16 027 €	Jeff Bryant (MACHC CB Coordinator)
MACHC	2017	Bahamas, El Salvador, Honduras, Montserrat, Nicaragua, Turks & Caicos (plus four other nations	2		To ensure that countries in the MACHC region are made aware that the provision of hydrographic services is an international obligation under treaty law affecting all Member States (MS) of the	Participants will gain a better understanding of the regulatory framework which supports hydrography and how this can benefit a coastal state (Blue Economy etc)	The contribution from the CBSC fund will cover travel and subsistence for one representative from each of the 11 countries involved. The representatives will be expected to stay on for the	15 500 €	Jeff Bryant (MACHC CB Coordinator)
MACHC	2017	Dominican Republic and El Salvador	3	Technical Implementation Visits to Dominican Republic and El Salvador	To assist and advise Dominican Republic and El Salvador to fully implement the recommendations in the IHO reports of the 2012 & 2010 technical and advisory visits.	Understanding of SOLAS obligations and ways in which to meet them. A robust MSI promulgation process. Improved charting of the region.	Travel & Subsistence for two experts	8 400 €	Jeff Bryant (MACHC CB Coordinator)
МАСНС	2017	Bahamas, Belize, Dominican Republic, El Salvador, Guyana, Honduras & Nicaragua	4	Basic Hydrographic Survey Course	To train survey operations personnel in accordance with Phase 2 of IHO's Capacity Building procedures	Improved understanding of survey requirements and the operation of basic equipment	Travel & Subsistence for 2 trainers and 8 students + (1 local)	26 507 €	Jeff Bryant (MACHC CB Coordinator)
MBSHC	2017	Algeria, Georgia, Montenegro, Romania and Tunisia	1	Workshop on ENC production and distribution	Improve the capacity of MBSHC countries to produce and distribute their ENCs.	Promote ENC production and distribution to meet national and international obligations		9 080 €	LCDR.Eşref GÜNSAY egunsay@shodb.gov.tr +90 216 322 25 80 (3610)

Sponsor RHC	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
MBSHC	2017	Algeria, Georgia, Greece, Montenegro, Romania, Russian Fed., Ukraine, Albania, Bulgaria, Lebanon, Malta, and Israel (non- MS in red)	2	Workshop on Technical Aspects of Maritime Boundaries	To each participants the basic technical principles to maritime boudary delimitation	Participant will have knowledge on the technical aspects of implementing the UNCLOS		16 120 €	LCDR.Eşref GÜNSAY egunsay@shodb.gov.tr +90 216 322 25 80 (3610)
NIOHC	2017	NIOHC, Members States	1	MSI (training on establishment of MSI structure and basic MSI procedures)	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	Improving maritime safety and compliance with SOLAS	Fund Travel & subsistence for up to 10 students, together with x2 MSI instructors		Jeff Bryant (NIOHC CB Coordinator)
NIOHC	2017	Seychelles	2		Raise the profile of hydrography at the highest level in the Seychelles	Greater understanding at the highest levels and continued funding	Fund Travel & subsistence for 2 persons (IHB + one other to undertake the visit)	8 000 €	Jeff Bryant (NIOHC CB Coordinator)
NIOHC	2017	Bangladesh	3	Advanced Chart Production	To train the whole cartographic production team in the use of the new systems as well as defining workflow from receipt of data from the survey vessel into the chart production workflow	Better and more efficient outputs from the production system which will mean better and safer charts	Fund Travel & subsistence for 1 trainer	8 500 €	Jeff Bryant (NIOHC CB Coordinator)
NIOHC	2017	Myanmar	4	Advanced Chart Production	To train the whole cartographic production team in the use of the new systems as well as defining workflow from receipt of data from the survey vessel into the chart production workflow	Better and more efficient outputs from the production system which will mean better and safer charts	Fund Travel & subsistence for 1 trainer	8 500 €	Jeff Bryant (NIOHC CB Coordinator)

Sponsor RHC	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
RSAHC	2017	Bahrain & Qatar	1	to maritime/port authorities) in Bahrain & Qatar	Technical Advisory and Assessment visit by IHB approved consultant & RSAHC CB Coordinator     Prepare a phased action plan to develop the necessary hydrographic infrastructure	Promote in-country hydrographic services and active national coordinator for MSI	Fund Travel & subsistence for IHB endorsed consultant and RSAHC CB Coordinator	9 700 €	Jeff Bryant (RSAHC CB Coordinator)
RSAHC	2017	RSAHC Member States	2	Basic ENC & ENC Production	To gain an understanding of the international standards relating to Electronic Charts, the IHO Standard S-57, and the regulations, role and purpose of Electronic Navigational Charts.	Improved knowledge of the production, distribution and use of ENCs	Fund Travel & subsistence for up to 8 students, together with x2 UKHO trainers	24 500 €	Jeff Bryant (RSAHC CB Coordinator)
SAIHC	2017	Angola, Comoros, Kenya, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles & Tanzania	1		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	Improving maritime safety and compliance with SOLAS	Travel & Subsistence for 2 trainers and 9 students (1 local)	14 859 €	Jeff Bryant (SAIHC CB Coordinator)
SEPRH C	2017	Colombia (2) Chile (2) Peru (2) Ecuador (2)	1		Improve knowledge of the specialists on this subject. The workshop will be aimed at acquiring basic knowledge of Bathymetric Data Base methodology, applied to bathymetric data administration.	Improve knowledge of the specialists on use of methodology for bathymetric data management.	CARIS Enterprise instructors	22 000 €	Lt Jorge TALAVERA
SEPRH C	2017	Colombia (2) Chile (2) Peru (2) Ecuador (2)	2	Workshop offshore surveys (geophysical analysis and identification of seamounts)	To acquire on methodology offshore surveys (geophysical analysis and identification of seamounts), applied to define submarine accidents and geophysical studies	To acquire basic knowledge about offshore surveys (geophysical analysis and identification of seamounts).	Enterprise instructors	29 385 €	Lt Jorge TALAVERA

Sponsor RHC	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
SWAtH C	2017	Argentina, Brazil, Uruguay, Paraguay, Bolivia, as well as SEPHC, and MACHC.	1	course using RTK technology	to perform bathemetry using RTK technology.	The main purpose is to achieve the IHO S-44 standards on bathymetric data, especially on positioning, improving the quality of nautical charts. This training will allow the Hydrographic Services to develop products INT/ENC with better accuracy.	21 000,00 € from CB Fund		Capt.Carvalho (DHN)
SWAtH C	2017	Argentina, Brazil, Uruguay, 4 MACHC MS and 4 SEPHC MS	2	<i>8</i> ··· · · · · <i>8</i> ··	Disseminate and increase the use of Digital Photogrammetry with satellite images in nautical chart production.	Improve nautical charts and ENCs production and updating methods allowing quality enhancement and cost reduction using the provided tools and knowledge.	31 200,00 € from CB Fund		Cmdr Gustavo ALMAZAN (SHN) ARGENTINA
SWAtH C	2017	Argentina, Brazil, Uruguay, Paraguay, Bolivia, as well as SEPHC, and MACHC. Obs.: Other four Latin American countries could be invited.	3		To increase the Latin American capability on Data Management in order to properly use geo-referenced Data bases (i.e. ENC database).	More qualified hydrographers to use Nautical Charts database products within the South American region. The more qualified hydrographers would benefit the final quality of ENC production. The main purpose is to discuss how Data Management can improve MS meeting of the IHO -S57 standards and future IHO-S100 and enhancing of their Nautical Charts quality.	21 500,00 € from CB Fund		Cdr. Jorge LEMOS (SOHMA)
SWPHC	2017	Fiji	1	_	This training will enhance the knowledge of Fiji Navy in MBES operations and data processing	Improved understanding and collaboration on MBES knowledge for Fiji Navy	Fund 2 instructors for travel & subsistence to deliver training		CDRE Brett BRACE, RAN (Hydrographer of Australia)
SWPHC	2017	Solomon Islands	2	Solomon Islands Nautical Cartographer Development	Develop cartographic skills	Increased capacity of Solomon Islands Hydrographic Unit	Funding for travel, accommodation and subsistence for 1 person	8 000 €	Clifford Olisukulu

Sponsor RHC	Year of Executi on	Countries involved	Priority	Project Name	Project Objective	Benefits	Assistance required	Cost (Euro)	Contact Person
SWPHC		Fiji, PNG, Solomon Is, Vanuatu & Tonga	3	Industry Survey Project	Assisting IHO MS in the region to build capacity to achieve CB Phase 2, i.e. creation of a survey capability to conduct coastal and offshore projects.	MS	Funding for third party expenses such as airfares, accommodation, meals and equipment freight costs		CDRE Brett BRACE, RAN (Hydrographer of Australia)
SWPHC	2017	PNG, AU, NZ		Risk Assessment	charting improvements and	Fulfill SOLAS obligations (To assist PNG to prioritise charting improvements and related maritime safety initiatives)	Fund a Hydrography Risk Assessment for PNG		CDRE Brett BRACE, RAN (Hydrographer of Australia)
							Total:	633 472 €	

RHC	Project Name	1	2	3	4	5	6	7	8	9	Total	Phase	Priority	Resources	Sum	Observation
EAtHC	MSI E-learning guided sessions.	3	10	5	0	10	3	5	0	5	41	1	1	2 600	2 600	
EAtHC	Technical visit to Gambia	3	10	1	0	10	5	5	0	5	39	0	2	5 000	7 600	
MACHC	MSI Course	3	10	5	3	7	5	4	-2	4	39	1	3	16 027	23 627	
NIOHC	MSI (training on establish of MSI structure, basic MSI procedures)	3	10	5	3	7	5	4	-2	4	39	1	4	21 974	45 601	
SAIHC	MSI Course (3 days)	3	10	5	3	7	5	3	-1	4	39	1	5	14 859	60 460	
SWPHC	SW Pacific Region Industry Survey Project	5	5	1	5	10	1	5	0	5	37	2	6	30 000	90 460	
SWPHC	MBES training for Fiji	3	5	1	5	8	5	5	0	5	37	2	7	11 000	101 460	
MACHC	Seminar on Raising Awareness of Hydrography	5	10	5	0	6	5	4	-3	3	35	0	8	15 500	116 960	
EAtHC	HydroMOWCA study follow-up	3	5	5	0	10	1	5	0	5	34	0	9	15 000	131 960	
MBSHC	Workshop on ENC production and distribution	3	1	3	0	7	5	5	5	5	34	3	10	9 080	141 040	
<b>EAtHC</b>	E-learning on specifications for hydrographic surveys	3	5	5	0	10	0	5	0	5	33	2	11	30 000	171 040	
NIOHC	Technical Visit to Government high authorities of Seychelles	5	10	1	4	6	3	4	-2	2	33	0	12	8 000	179 040	
EAHC	Hydrographic Survey for Disaster Management and Relief	3	5	5	0	6	3	5	0	5	32	2	13	16 760	195 800	
MACHC	Technical Implementation Visits to Dom. Republic and El Salvador	5	10	1	3	7	1	3	-2	4	32	0	14	8 400	204 200	Cut off
<b>SWAtHC</b>	Bathymetry training course using RTK technology	3	5	1	1	6	5	5	0	5	31	2	15	14 400	218 600	
RSAHC	Technical Visit to Bahrain and Qatar	5	10	1	2	0	5	4	-1	4	30	0	16	9 700	228 300	
SEPRHC	Workshop on Bathy Database	3	5	1	0	7	5	5	-1	5	30	2	17	22 000	250 300	
EAHC	Use of GNSS for tide correction for survey	3	5	5	0	6	1	5	0	4	29	2	18	16 760	267 060	
EAHC	Lidar and Satellite Derived Bathymetry Workshop	3	5	5	0	6	0	5	0	5	29	2	19	16 760	283 820	
NIOHC	Advanced Chart Production (Bangladesh)	3	1	1	4	10	1	5	0	4	29	3	20	8 500	292 320	
	Workshop offshore surveys (geophysical analysis and identification															
SEPRHC	of seamounts)	3	5	1	0	7	3	5	0	5	29	2	21	29 385	321 705	
<b>SWAtHC</b>	Digital Photogrammetry with satellite images	3	5	1	1	6	3	5	0	5	29	2	22	26 200	347 905	
MBSHC	Workshop on Technical Aspects of Maritime Boundaries	3	1	5	0	6	3	5	0	5	28	4	23	16 120	364 025	
NIOHC	Advanced Chart Production (Myannmar)	3	1	1	4	10	0	5	0	4	28	3	24	8 500	372 525	
SWPHC	Solomon Islands Nautical Cartographer Development	3	1	1	3	10	3	5	-2	4	28	3	25	8 000	380 525	
RSAHC	Basic ENC & ENC Production	3	1	3	4	1	3	4	0	4	23	3	26	14 940	395 465	
SWAtHC	Data management WORKSHOP	3	1	1	0	6	1	5	-2	5	20	3	27	19 500	414 965	
SWPHC	PNG Hydrographic Risk Assessment	5	10	1	5	10	0	5	0	-17	19	0	28	100 000	514 965	
MACHE	Basic Hydrographic Survey Course	3	<del>5</del>	5	θ	7	θ	4	4	<del>-5</del>	<del>18</del>	2	<del>29</del>	0	<del>514 965</del>	Ph 2 for non-MS

# INTERNATIONAL HYDROGRAPHIC ORGANIZATION CAPACITY BUILDING SUB-COMMITTEE CAPACITY BUILDING MANAGEMENT PLAN 2017

RHC	Project Name	1	2	3	4	5	6	7	8	9	Total	Phase	Priority	Resources	Sum	Observation
IHO/ROK	ROK Category A Programme											2		184 000	184 000	ROK earmarked
IHO/ROK	Trainer for Trainer - Basic Hydrography											2		60 000	244 000	ROK earmarked
IHO/ROK	ROK Category B Programme (third phase)											3		60 000	304 000	ROK earmarked
Japan	Nippon Chart Project											3		195 000	499 000	Nippon earmarked
EAtHC	MSI E-learning guided sessions.	3	10	5	0	10	3	5	0	5	41	1	1	2 600	2 600	Funded
EAtHC	Technical visit to Gambia	3	10	1	0	10	5	5	0	5	39	0	2	5 000	7 600	Funded
MACHC	MSI Course	3	10	5	3	7	5	4	-2	4	39	1	3	16 027	23 627	Funded
NIOHC	MSI (training on establish of MSI structure, basic MSI pro	3	10	5	3	7	5	4	-2	4	39	1	4	21 974	45 601	Funded
SAIHC	MSI Course (3 days)	3	10	5	3	7	5	3	-1	4	39	1	5	14 859	60 460	Funded
SWPHC	SW Pacific Region Industry Survey Project	5	5	1	5	10	1	5	0	5	37	2	6	30 000	90 460	Funded
SWPHC	MBES training for Fiji	3	5	1	5	8	5	5	0	5	37	2	7	11 000	101 460	Funded
MACHC	Seminar on Raising Awareness of Hydrography	5	10	5	0	6	5	4	-3	3	35	0	8	15 500	116 960	Funded
EAtHC	HydroMOWCA study follow-up	3	5	5	0	10	1	5	0	5	34	0	9	15 000	131 960	Funded
MBSHC	Workshop on ENC production and distribution	3	1	3	0	7	5	5	5	5	34	3	10	9 080	141 040	Funded
EAtHC	E-learning on specifications for hydrographic surveys	3	5	5	0	10	0	5	0	5	33	2	11	30 000	171 040	Funded
NIOHC	Technical Visit to Government high authorities of Seyche	5	10	1	4	6	3	4	-2	2	33	0	12	8 000	179 040	Funded
EAHC	Hydrographic Survey for Disaster Management and Relie	3	5	5	0	6	3	5	0	5	32	2	13	16 760	195 800	Funded
MACHC	Technical Implementation Visits to Dom. Republic and El	5	10	1	3	7	1	3	-2	4	32	0	14	8 400	204 200	Funded
SWAtHC	Bathymetry training course using RTK technology	3	5	1	1	6	5	5	0	5	31	2	15	14 400	218 600	Not funded yet
RSAHC	Technical Visit to Bahrain and Qatar	5	10	1	2	0	5	4	-1	4	30	0	16	9 700	228 300	Not funded yet
SEPRHC	Workshop on Bathy Database	თ	5	1	0	7	5	5	-1	5	30	2	17	22 000	250 300	Not funded yet
EAHC	Use of GNSS for tide correction for survey	3	5	5	0	6	1	5	0	4	29	2	18	16 760	267 060	Not funded yet
EAHC	Lidar and Satellite Derived Bathymetry Workshop	3	5	5	0	6	0	5	0	5	29	2	19	16 760	283 820	Not funded yet
NIOHC	Advanced Chart Production (Bangladesh)	3	1	1	4	10	1	5	0	4	29	3	20	8 500	292 320	Not funded yet
SEPRHC	Workshop offshore surveys (geophysical analysis and ide	3	5	1	0	7	3	5	0	5	29	2	21	29 385	321 705	Not funded yet
SWAtHC	Digital Photogrammetry with satellite images	3	5	1	1	6	3	5	0	5	29	2	22	26 200	347 905	Not funded yet
MBSHC	Workshop on Technical Aspects of Maritime Boundaries	3	1	5	0	6	3		0	5	28	4	23	16 120	364 025	Not funded yet
NIOHC	Advanced Chart Production (Myannmar)	3	1	1	4	10	0		0	4	28	3	24	8 500	372 525	Not funded yet
SWPHC	Solomon Islands Nautical Cartographer Development	3	1	1	3	10		5	-2	4	28	3	25	8 000	380 525	Not funded yet
RSAHC	Basic ENC & ENC Production	3	1	3	4	1	3	4	0	4	23	3	26	14 940	395 465	Not funded yet
SWAtHC	Data management WORKSHOP	3	1	1	0	6	1	5	-2	5	20	3	27	19 500		Not funded yet
SWPHC	PNG Hydrographic Risk Assessment	5	10	1	5	10	0	5	0	-17	19	0	28	100 000	514 965	Not funded yet
RHC	Project Name	1	2	3	4	5	6	7	8	9	Total	Phase	Priority	Resources	Sum	
	Procedure 4 maximum score	5	10	5	5	10	5	5	0	5	50				1 013 965	

# INTERNATIONAL HYDROGRAPHIC ORGANIZATION CAPACITY BUILDING SUB-COMMITTEE CAPACITY BUILDING MANAGEMENT PLAN 2017

In-kind

Regional Course in Basic Hydrography and Hydrographic

**IMO** Governance for Lusophone Africa

Regional Seminar on Safety of Navigation in the South

IMO West Pacific

Nippon GEBCO Training Project