

INTERNATIONAL HYDROGRAPHIC ORGANIZATION
CAPACITY BUILDING SUB-COMMITTEE
DRAFT MANAGEMENT PLAN 2016

RHC	Project Name	1	2	3	4	5	6	7	8	9	Total	Phase	Priority	Resources	Sum
SWPHC	Technical Workshop for PICTs in Formulating and Implementing	5	10	5	4	7	5	5	-1	5	45	1		36,000	36,000
SWPHC	Technical Assessment & Advice – Tuvalu	5	10	5	4	7	5	5	-1	5	45	1		3,326	39,326
EAHC	E-learning experimentation (Hydrography)	3	5	5	5	10	5	5	0	5	43	2		15,000	54,326
EAHC	E-learning experimentation (MSI)	3	10	5	0	10	5	5	0	5	43	1		20,000	74,326
SAIHC	High-level Visit to Tanzania	5	10	1	4	10	5	4	-2	5	42	1		8,000	82,326
EAHC	ROK Category A Programme	3	5	3	5	10	5	5	0	5	41	2		184,000	266,326
MACHC	MSI and Hydro Governance Workshop	5	10	5	3	6	1	5	0	5	40	1		19,952	286,278
SWPHC	MSI Regional Workshop	3	10	5	3	7	5	5	-3	5	40	1		25,000	311,278
MACHC	Seminar on Raising Awareness of Hydrography	5	10	5	0	6	5	4	-2	5	38	1		15,500	326,778
EAHC	Technical Visit to Timor Leste	5	10	1	0	6	3	5	0	5	35	1		7,800	334,578
SWAtHC	Multi-beam Training Course	3	5	5	0.2	6	5	5	0	5	34.2	2		25,000	359,578
SWAtHC	Tide Training Course	3	5	5	0.2	6	5	5	0	5	34.2	2		16,400	375,978
SWAtHC	Data Management Workshop	3	5	5	0.2	6	5	5	0	5	34.2	2		16,400	392,378
EAHC	Trainer for Trainer - Basic Hydrography	3	5	5	0	6	5	5	0	5	34	2		50,000	442,378
NIOHC	MBES Processing (5 days)	3	5	1	4	10	1	5	0	5	34	2		8,500	450,878
SWPHC	Cat B Nautical Cartography Training Course	3	5	3	2	6	5	5	0	5	34	3		124,000	574,878
EAHC	ROK Category B Programme (second phase)	3	1	3	5	6	5	5	0	5	33	3		84,700	659,578
EAHC	Nippon Chart Project	3	1	3	5	6	5	5	0	5	33	3		195,000	854,578
MACHC	Multi Beam Collection and Processing Training in Spanish	3	5	5	5	6	0	4	0	5	33	2		29,500	884,078
MBSHC	Technical Visit to Lybia	5	10	1	0	8	3	4	-3	5	33	1		3,400	887,478
SAIHC	MBES equipment configuration/interfacing and setting to work	3	5	1	3	10	2	4	0	5	33	2		9,604	897,082
MACHC	MSDI Workshop for Spanish speakers	3	1	5	3	6	5	4	0	5	32	3		23,658	920,740
MBSHC	Workshop on ENC Production and Distribution	3	1	6	0	6	5	5	0	5	31	3		17,586	938,326
MBSHC	Implementation Visit to Israel and Lebanon	5	10	1	0	5	3	4	-2	5	31	1		3,400	941,726
NIOHC	Chart Scheming (3 days)	3	1	3	3	7	5	4	0	5	31	3		16,627	958,353
NIOHC	Introduction to MSDI and Data Management	3	1	5	3	7	3	4	0	5	31	3		14,344	972,697
RSAHC	Technical Visit in Bahrain & Qatar	5	10	1	2	0	5	4	-1	5	31	1		9,700	982,397
SEPHC	Workshop on technics, methodology of MBES data processing	3	5	1	0	7	5	5	0	5	31	2		26,911	1,009,308
EAHC	Satellite Derived Bathymetry	3	5	5	0	6	0	5	0	5	29	2		20,450	1,029,758

INTERNATIONAL HYDROGRAPHIC ORGANIZATION
CAPACITY BUILDING SUB-COMMITTEE
DRAFT MANAGEMENT PLAN 2016

MACHC	Satellite Derived Bathymetry Workshop	3	5	3	3	4	1	5	0	5	29	2		21,734	1,051,492
MACHC	Module 1 of the IIC Category B Programme	3	1	5	5	6	0	4	0	5	29	3		74,100	1,125,592
NIOHC	Advanced ENC Production (5 days)	3	1	1	4	8	1	5	0	5	28	3		8,500	1,134,092
SEPHC	Workshop on LIDAR technology for shallow waters	3	5	1	0	7	3	4	0	5	28	2		26,540	1,160,632
EAHC	Cartographic Production Database System Workshop	3	1	5	0	6	1	5	0	5	26	3		19,150	1,179,782
EAHC	Multi-beam Survey and Seabed Classification	3	5	5	0	6	0	5	-3	5	26	2		20,500	1,200,282
RSAHC	Basic ENC & ENC Production	3	1	3	4	1	3	4	0	5	24	3		24,500	1,224,782
RSAHC	ENC Production and QA	3	1	3	4	1	1	4	0	5	22	3		25,110	1,249,892

PROJECT SUMMARY FOR THE 2016 SUBMISSIONS – CBSC13

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 CBSC)	Contact Person
EAHC	2015/2016	EAHC (including the impending IHO MSs)	1	Training for Trainer-Basic Hydrography	To train up a pool of Trainers in each EAHC Member State office so that they can conduct training for their respective office. This would be especially useful in States where English is not their mother tongue	To build up new survey officers through a structured training programme in a cost effective way. Greater benefits will be achieved from the non-English speaking offices.	CB Funds for course fees, accommodation costs and return flights	50,000		Commodore Jacinto M. Cablayan, EAHC Chair
EAHC	2016	EAHC (including the impending IHO MSs)	2	Technical Visit for Timor	For Timor Leste to be independent in provision of its hydrographic and cartographic services and products.	To encourage Timor Leste to join the IHO and to be part of the hydrographic community in its quest for hydrographic development.	CB Funds for visit, accommodation costs and return flights	7,800		Commodore Jacinto M. Cablayan, EAHC Chair
EAHC	2016	EAHC (including the impending	3	Cartographic Production Database	To prepare for a shift towards establishing chart	Through the sharing of information on	CB Funds for course fees, accommodation	19,150		Commodore Jacinto M. Cablayan,

		IHO MSs)		System Workshop	publication DB and publication system using latest IT technologies	chart publication system and establishing DB among the Member States, construct chart DB of international standards	costs and return flights			EAHC Chair
EAHC	2016	EAHC (including the impending IHO MSs)	4	Multi-beam Survey and Seabed Classification	It will allow MSs to better appreciate the principles of MBS acoustic theory and its application for seabed classification	To understand the principles and use of the MBS technology for seabed classification	CB Funds for course fees, accommodation costs and return flights	20,500		Commodore Jacinto M. Cablayan, EAHC Chair
EAHC	2016	EAHC (including the impending IHO MSs)	5	Satellite Derived Bathymetry Charting	To introduce and share the multi-spectrum satellite imagery as one of methods of determining bathymetry	Introduction and sharing the principles and techniques of satellite multi-spectral image for SDB for charting	CB Funds for course fees, accommodation costs and return flights	20,450		Commodore Jacinto M. Cablayan, EAHC Chair
IHO	2016	Republic Of Korea		S8 Category B Marine Geospatial Information Program	To enhance a practical understanding of nautical cartography	Enhance Safety navigation at sea.		84,700		Yong BAEK
IHO	2016	Republic of		ROK Category	Hydrographic	Enhance safety of		184,000		Yong BAEK

		Korea		A Programme	Education	navigation				
IHO	2016	Japan		Chart Project	Hydrographic Education	Enhance safety of navigation		195,000		Yong BAEK
EAtHC	2016	France	1	E-learning experimentation (Hydrography)	A distance learning module, in French language, of a basic IHO course	Various benefits for IHO funded courses: cost reduction, increased access, follow-up on students, improved candidate selection.	CB Funds	15 000 Euros (plus 15 000 from AFHy)		Michel Even Ronan Le Roy
EAtHC	2016	France	2	E-learning experimentation (MSI)	A distance learning module, in French language, of a basic IHO course	Various benefits for IHO funded courses: cost reduction, increased access, follow-up on students, improved candidate selection.	CB Funds	20 000€		Michel Even Ronan Le Roy
MACHC	2016			MSDI Workshop for Spanish speakers				23 658		
MACHC	2016			MSI and Hydro Governance Workshop				19 952		
MACHC	2016			Satellite Derived				21 734		

				Bathymetry Workshop						
MACHC	2016			Seminar on Raising Awareness of Hydrography				15 500		
MACHC	2015	Brazil, Colombia, Cuba, Guatemala, Mexico, Venezuela, Panama, Costa Rica, El Salvador, Honduras, Nicaragua, Dominican Republic	HIGH	Multi Beam Collection and Processing Training in Spanish	Increase the knowledge and appreciation of Multi Beam Surveying and data Processing among current and potential users.	More Hydrographers trained in the latest multibeam techniques for acquisition and data processing	€29,500.00	29 500 (plus 17 000 from the region)		
MACHC	2016 (2017 and 2018)	MACHC countries		Module 1 of the IIC Cat B				74 100 (73 000 by IIC and ACP)		
MBSHC	2016	Algeria, Bulgaria, Montenegro, Romania, Tunisia and Malta.	1 /3	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		17,586 euros		LCDR.Bülent GÜRSES, ONHO, bgurses@shodb.gov.tr +90 216 322 25 80 (3600)
MBSHC	2016	Libya	2/3	Technical visit	Advise on a way	Promote in Libya		3400		CDR.Bülent

					forward	hydrographic services to meet national and international obligations		euros		GÜRSES, ONHO, bgurses@sho db.gov.tr +90 216 322 25 80 (3600)
MBSHC	2016	Lebanon and Israel	3/3	Technical visit	Advise on a way forward	Promote in Lebanon and Israel hydrographic services to meet national and international obligations and IHO membership		3400 euros		CDR.Bülent GÜRSES, ONHO, bgurses@sho db.gov.tr +90 216 322 25 80 (3600)
NIOHC	2016	NIOHC Member States	Priority 1	Chart Scheming (3 days)	A greater understanding of this subject to support the creation and maintenance of both national and regional INT chart schemes which will in turn improve the effectiveness of the NICCWG	Improved understanding of the art of chart scheming both national and INT	Fund Travel & subsistence for up to 8 students, together with x1 UKHO trainer	€16,627		Jeff Bryant (NIOHC CB Coordinator)
NIOHC	2016	NIOHC Member States	Priority 2	Introduction to MSDI and Data Management	The course programme aims to provide the delegates with an interactive one	Increased and enhanced understanding of MSDI and its relevance to national, regional,	Fund Travel & subsistence for up to 10 students	€14,344		Jeff Bryant (NIOHC CB Coordinator)

					week introduction to all aspects of MSDI and data management	and global development success through the provision of tools, solutions and case studies to engage and contribute to MSDI development.				
NIOHC	2016	Sri Lanka	Priority =3	Advanced ENC Production (5 days)	The course programme aims to provide the delegates with an interactive one week specialist training course in ENC production utilizing the software that they own	Better and more efficient outputs from the ENC production system which will mean better ENCs	Fund Travel & subsistence for x1CARIS trainer	€ 8,500		Jeff Bryant (NIOHC CB Coordinator)
NIOHC	2016	Myanmar	Priority =3	MBES Processing (5 days)	To deliver an interactive one week specialist training course in MBES Processing utilizing the software that they own.	Better and more efficient post processing of survey data will mean better and safer charts	Fund Travel & subsistence for x1CARIS trainer	€ 8,500		Jeff Bryant (NIOHC CB Coordinator)
RSAHC	2016	Bahrain & Qatar	Priority 1	Technical Visit (visit to maritime/port authorities) in	1. Technical Advisory and Assessment visit by IHB approved	Promote in-country hydrographic services and active national coordinator for	Fund Travel & subsistence for IHB endorsed consultant and	€9,700		Jeff Bryant (RSAHC CB Coordinator)

				Bahrain & Qatar	consultant & RSAHC CB Coordinator 2. Prepare a phased action plan to develop the necessary hydrographic infrastructure	MSI	RSAHC CB Coordinator			
RSAHC	2016	RSAHC Member States	Priority 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)
RSAHC	2016	RSAHC Member States	Priority 3	ENC Production and QA	To train a group of professionals to verify and validate S-57 data	Improved knowledge of Validation & Verification and greater confidence in ENC QA	Fund Travel & subsistence for up to 8 students, together with x1 UKHO trainer	€25,110		Jeff Bryant (RSAHC CB Coordinator)
SAIHC	2016	Tanzania	Priority 1	Technical Visit to Government high authorities - Tanzania	Raise the profile of hydrography at the highest level in Tanzania	Greater understanding at the highest levels and continued funding	Fund Travel & subsistence for 2 persons (IHB + SAIHC Chair to	€8,000		Jeff Bryant (SAIHC CB Coordinator)

							undertake the visit)			
SAIHC	2016	Mozambique	Priority 2	MBES equipment configuration/interfacing and setting to work project for INAHINA	1. For 2 qualified Hydrographic Surveyors to ensure the MBES system is properly configured and its performance optimised 2. To train INAHINA staff to use the system and process the resulting output (both onboard and onshore)	Improve the coverage and quality of survey data (full seafloor coverage) to meet national requirements	Fund Travel & subsistence for two Portuguese speaking Hydrographic surveyors to train the INHINA survey team to use their MBES equipment effectively	€9604		Jeff Bryant (SAIHC CB Coordinator)
SEPHC	2016	Ecuador Peru Chile Colombia		Workshop on technics and methodology of multi-beam data processing	Develop a workshop on technics and methodology of multi beam data processing and Exchange of experiences through workshops and conferences.	Carry out multi beam hydrographic surveys, data processing and use of the data in the different hydrographic field to share procedures between the Hydrographic Office and industry	Two lecturers	26 911		Director CIOH
SEPHC	2016	Colombia (2),		Workshop on	Improve knowledge	Improve	Three instructors	26 540		CPFG-EMT

		Chile (2), Peru (2) Ecuador		LIDAR technology for shallow waters	of the specialists on this subject. The workshop will be aimed at acquiring basic knowledge of LIDAR technology applied to bathymetric surveys in relation to the flow for the acquisition and processing of data acquired	knowledge of the specialists on use of LIDAR technology				Carlos Zapata, TNNV- TNC Jorge Alavera Eng. MSIG Patricia Villa
SWAtHC	2016	Argentina Brazil, Uruguay, Paraguay, Bolivia, MACHC MS and SEPHC MS Obs.: Other four Latin American countries could be invited.	HIGH	Multi-beam Training Course	To increase the Latin American capacity to properly acquire and process Mullebeam data.	More qualified hydrographers would benefit the final quality of ENCs. The main purpose is to meet the S-44 SPECIFICATION in order to enhance Nautical Charts quality.	Total cost of € 29,000	€ 25,000 from CBC		Comdr VIVIANA (SHN)
SWAtHC	2015	Argentina Brazil Uruguay Paraguay Bolivia	High	Tide Training Course	To increase the Latin American capacity on TIDE analysis and tidal data	More qualified hydrographers on TIDE analisis and tidal data adquiring/processi	Total cost of € 20,400 Fund	€ 16,400 from CBSC		CAP. Nickolás Roscher(DH N)

		As well as SEpHC, and MACHC. Obs.: Other four Latin American countries could be invited.			acquiring/processing.	ng within the South American region. The more qualified hydrographers would benefit the final accuracy of ENC production. The main purpose is to meet the IHO-S-44 standards on batimetric data, specially on tidal corrections, and consequently enhance the Nautical Charts quality.				
SWAtHC	2015	Argentina Brazil Uruguay As well as SEpHC, and MACHC. Obs.: Other four Latin American countries could be	high	Data Management Workshop	To increase the Latin American capability on Data Manegment 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	Total cost of € 20,400	€ 16,400 from CBSC Fund		CAP. Nickolás Roscher(DH N)

		invited.				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.				
SWPHC	2016	Cook Islands, Fiji, French Polynesia, Kiribati, Nauru, New Caledonia, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu,	Priority 1	Technical Workshop for PICTs in Formulating and Implementing Strategic Development Plans for Hydrography	Practical workshop for PICs in formulating and implementing strategic development plans for hydrography in their countries.	Increased efficiencies in developing hydrographic administrations and develop knowledge in related technical matters.	Fund travel and subsistence costs for 15 people from region to attend the Workshop	€36,000		CDRE Brett BRACE, RAN (Hydrographer of Australia)

		Vanuatu								
SWPHC	2016	Tuvalu	Priority 2	Technical Assessment & Advice – Tuvalu	Technical and advisory visit to inform, assess current status and note requirements	Understanding of SOLAS obligations and ways in which to meet them. A robust MSI promulgation process. Improved charting of the region.	Funding for travel and subsistence for one person	€3,326		Sam Harper (International Hydrographic Projects Manager, UKHO)
SWPHC	2016	Solomon Islands, Tuvalu, Cook Islands, Fiji, Samoa, Tonga, Kiribati, PNG, Tokelau, New Caledonia, Niue, Vanuatu, French Polynesia	Priority 2 (2016)	MSI Regional Workshop (SWPHC2015_03)	Establish a reliable flow of MSI information from SWP Island States to NAVAREA X and XIV Coordinators to improve maritime safety and increase maritime domain awareness	Effective and enduring MSI input to NAVAREA X and XIV Coordinators Lasting contact between SWP Island States and Primary Charting Authorities within the region	Fund Travel, accommodation and subsistence for 13 participants) from SWP region to attend workshop	€25,000		Mr Adam Greenland, LINZ (Hydrographer of New Zealand)
SWPHC	2016	Australia, Fiji, New Zealand, Papua New Guinea, Tonga,	Priority 3	Cat B Nautical Cartography Training Course	Provide IHO MS in the SWP region with a Nautical Cartography training course	IHO MS have structured training programme as part of a strategic framework to recruit and retain staff to meet	Fund travel, accommodation and subsistence costs for 6 people from region to attend Training	€372k over 3 years		Adam Greenland (NZ National Hydrographer)

						current and future requirements and contribute to regional CB activities.				
--	--	--	--	--	--	---	--	--	--	--