INTERNATIONAL HYDROGRAPHIC ORGANIZATION
SOUTHERN AFRICA & ISLANDS HYDROGRAPHIC COMMISSION

CAPACITY BUILDING PLAN

Programme document for the period 2013-2017

1. INTRODUCTION

1.1. Rationale

The Southern Africa & Islands (SAIHC) region contains three of the worlds 64 major large marine ecosystems, the Benguela current, the Agulhas current and the Somali current. Some of the species and habitats of these currents are unique. The main traffic to the west of the region are the routes from ports in NW Africa to the Cape of Good Hope together with the transatlantic routes for traffic between North and South America and the ten ports in this area.

The shipping lanes along the East Africa coast carry over 30% of the worlds crude oil supplies. This region contains thirteen important commercial ports serving as hubs for traffic emanating from, and destined for Europe, Asia, the Americas and the east and western coasts of Africa. In addition to the large cargo ships travelling internationally, many smaller boats serving local needs ply the coastal waters and harbours. Oil and gas exploration programmes operating throughout the region bring additional risks.

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 IHO Capacity Building Strategy classifies the development of hydrographic services into three phases:

- 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 paper charts, ENC and publications independently.

Coastal/maritime states have certain treaty obligations (SOLAS) placed on them and the IHO/SAIHC effort aims at assisting states in meeting these obligations. To achieve this a national understanding and coordination effort is required noting that:

- resources (human, time, finance etc) are limited, consequently prioritization is a fundamental issue;
- planning must be realistic;
- longer term training such as CAT A or B are not covered because such training is out of the scope of the IHO CB budget.

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.

SAIHC 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 to the achievement of the objectives and directions of the Organization.

1.2. Aims and objectives

The aims of the Plan are:

a) to train staff, at various levels, to ensure a much needed capability on hydrography and nautical cartography, particularly after natural disaster or other incidents which could affect water depths in harbours and approaches; and

b) to comply with the IHO resolutions and guidelines regarding hydrographic and nautical cartographic activities.

The medium term objective 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;

The longer term objectives are:

a) to instruct staff in the region on the methods of carrying out hydrographic surveys, to improve safety of navigation through enhanced navigational products;

b) to promote the establishment of Hydrographic Services (HS) and the evolution of CB Phases of the established ones.

1.3. Priorities

Despite the breadth of need existing in the Region, for the period of 2013 to 2017, 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; and
3 - activities which may improve the capability of existing HS in Phase 3.

Note the link between the training activities listed in paragraph **2. Activities** below, and phases 0 to 3 listed above

The current hydrographic capacity status of countries/territories of the region is in Annex **A**.

1.4. Methodology and Procedures

This Plan will 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 SAIHC Capacity Building Coordinator will send to the Chair, no later than January 31st of each year details of all planned projects. 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

Phase	Activity	Project Objective	Target Audience
0.1	Technical visits Type 1 High level technical 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	Technical visits Type 2	Provide advice to identify how	Maritime Sector

Phase	Activity	Project Objective	Target Audience
	Technical assessment and advice visit	coastal states meet their hydrographic and MSI reponsibilities	National Agencies. Stakeholders and decision makers
1.1	MSI Course (3 days) Training on establishment of MSI structure and basic MSI procedures	To establish a core group of trained persons to deal with MSI	MSI Practioners
1.2	Phase 1 Skills (5 days) 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 Practioners
2.1	Basic Hydrographic Survey Course (10 days)	To provide awareness of national hydrography, hydrographic surveying and nautical cartography	Maritime Sector Decision Makers
2.2	Port and Shallow Water Survey Course (5 days)	A workshop to aid exchange of information and ideas about the challenges faced by port and shallow water surveyors in the SAIHC region	Port Surveyors
2.3	MBES Processing (5 days)	To train a group of hydrographic surveyors the techniques required to post-process MBES data	Hydrographic Practioners
2.4	MSDI and Database Management (5 days)	To give participants an understanding of spatial data infrastructures (SDI) including the importance and role of data management and databases	Government Planners
2.5	Tides and Water Level Workshop (5 days)	To provide fundamental knowledge and understanding of tides and water level, and their applications for hydrographic surveying and mapping activities	Hydrographic Practioners
2.6	Seabed Classification Workshop (5 days)	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 Practioners
3.1	Basic ENC and ENC Production course (10 days)	To train a group of professionals with a practical introduction to S-57 data	Cartographic Practioners
3.2	ENC Production and QA (5 days)	To train a group of professionals to verify and validate S-57 data	Cartographic Practioners
3.3	Module 1 – Marine Cartography of the CAT B Cartographic Course (5 weeks)	To provide participants delegates with a practical understanding of nautical cartography and the necessary skills to carry out routine nautical cartographic skills	Cartographic Practioners
3.4	Module 2 – Hydrographic Data Processing of the CAT B Cartographic Course (5	To provide participants with a practical understanding of hydrographic data processing the skills to carry out accurate	Cartographic Practioners

Phase	Activity	Project Objective	Target Audience
	weeks)	assessment and an appreciation of the issues surrounding chart maintenance	
3.5	Module 3 – Electronic Navigational Charts (ENC) of the CAT B Cartographic Course (5 weeks)	To provide a group of professionals with the skill and knowledge to produce ENCs	Cartographic Practioners
3.6	Law of the Sea Workshop (5 days)	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
3.7	Tsunami inundation mapping workshop (5 days)	To improve the modelling and presentation of regional tsunami inundation maps	Maritime Sector and emergency planning

3. Capacity Building Program

The program of capacity building activities for the period 2013 – 2017 is detailed in Annex **C**.

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SAIHC Counties/Territories Capacity Building Phase Stage

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

	Country / Territory	CB Phase 0	CB Phase 1	CB Phase 2	CB Phase 3	Last TV
1	Angola				UKHO	2008
2	France		Self	Self	Self	N/R
3	Kenya				UKHO	2012
4	Madagascar				SHOM	2011
5	Malawi				Self	2011
6	Mauritius				UKHO/ India	2012
7	Mozambique					2012
8	Namibia				RSA	2011
9	Norway		Self	Self	Self	N/R
10	Portugal		Self	Self	Self	N/R
11	Republic of South Africa		Self	Self	Self	N/R
12	Seychelles				UKHO	2012
13	Tanzania				UKHO	2012
14	United Kingdom		Self	Self	Self	N/R
15	Comoros				SHOM	2011

KEY TO REQUIRED TRAINING ACTIVITY

	Technical visit
	MSI Training and development
	Hydrographic survey training and development
	Cartographic training and development

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	
Justification of the project	

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

Schedule of activities	

RESOURCES

Contribution by countries involved	
Contribution	

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

From CBC Fund (item and amount)	

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 …….

Capacity Building Program for the period 2013 – 2017

2013

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
MSI Course (3 days)	For identified coastal states	SAIHC CB Coordinator		
Basic ENC and ENC Production Course (10 days)	For identified coastal states	SAIHC CB Coordinator		IMO to organize – 2nd Semester 2013
Law of the Sea Workshop (5 days)	For identified coastal states	SAIHC CB Coordinator		The CBSC did not accept this submission at its meeting in Singapore June 2012
MSDI and Database Management (5 days)	For identified coastal states	SAIHC CB Coordinator		The CBSC did not accept this submission at its meeting in Singapore June 2012
Chart Production (on the job training) 10 days	For Portuguese speakers only	SAIHC CB Coordinator		Training venue = Mozambique Training provider = Brazil The CBSC accepted this submission at its meeting in Singapore June 2012 with one amendment – for INAHINA staff only
Hydrographic Survey (on the job training) 10 days	For Portuguese speakers only	SAIHC CB Coordinator		Training venue = Mozambique Training provider = Brazil The CBSC did not accept this submission at its meeting in Singapore June 2012

2014

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
Technical and Advisory Visits	Repeat visits to selected coastal states	IHO and SAIHC		
Basic ENC and ENC Production Course (10 days)	For identified coastal states	SAIHC CB Coordinator		Amended to a Basic Hydrographic Survey Course (10 days) on the advice of the SAIHC Chair
Tides and Water Level Workshop (5 days)	For identified coastal states	SAIHC CB Coordinator		Added on the suggestion of the SAIHC Chair
'On the job' survey training	For most coastal states	SAIHC CB Coordinator		Suggested by SAIHC Chair On an opportunity basis – no submission required

2015

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
MSI Course (3 days)	For identified coastal states	SAIHC CB Coordinator		
Basic Hydrographic Survey Course (10 days)	For identified coastal states	SAIHC CB Coordinator		
Law of the Sea Workshop (5 days)	For identified coastal states	SAIHC CB Coordinator		Added on the advice of SAIHC Chair

2016

Activity	Beneficiaries	Responsible	Period	Obs.

	Countries / Territories			
Technical and Advisory Visits	Repeat visits to selected coastal states	IHO and SAIHC		
Basic ENC and ENC Production Course (10 days)	For identified coastal states	SAIHC CB Coordinator		

2017

Activity	Beneficiaries Countries / Territories	Responsible	Period	Obs.
MSI Course (3 days)	For identified coastal states	SAIHC CB Coordinator		
Basic Hydrographic Survey Course (10 days)	For identified coastal states	SAIHC CB Coordinator		
Law of the Sea Workshop (5 days)	For identified coastal states	SAIHC CB Coordinator		
MSDI and Database Management (5 days)	For identified coastal states	SAIHC CB Coordinator		