

**16<sup>th</sup> MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE  
IHO-CBSC16  
Goa, India, 30 May - 1 June 2018**

**Paper for the Consideration by CBSC18**

**MACHC report**

<b>Submitted by:</b>	MACHC CB Coordinator
<b>Executive Summary:</b>	This document provides a summary report of the CB activities at MACHC
<b>Related Documents:</b>	MACHC CB Plan 2018-2020
<b>Related Projects:</b>	Mexico (FOCAHIMECA), UK (CME and OTSMP)

### **1. Introduction / Background**

A three-year plan for CB activity in the MACHC region was approved by the membership in December 2016. This plan covers the period 2018-2020 and is reviewed annually (during MACHC meetings) to ensure it meets regional requirements. The plan is based on assessing the phase of development of each of the coastal states within the MACHC region (as determined by the IHO's three phases of CB) and arranging training activity to build the necessary capability to meet SOLAS treaty obligations. There is a great deal of 'SOLAS awareness' required in this region.

### **2. Assessment of Capacity Building Phase Stage of Coastal States**

See Excel file

### **3. Activities completed since CBSC15**

- Technical Implementation Visits were undertaken to *Dominican Republic* (January 2018) and *El Salvador* (December 2017)
- An MSI Training Course was delivered in St Michael, Barbados, in June 2017 for the following coastal states: -

*Barbados (5), British Virgin Islands, Costa Rica, Cuba, Curacao, Ecuador, El Salvador, Guatemala, Guyana, Honduras and Nicaragua*

- A two-day Hydrographic Awareness Seminar was organised to precede the main MACHC meeting in Varadero, Cuba in November 2017. The following coastal states were funded to attend this Seminar: -

*Anguilla, Antigua & Barbuda, Barbados, Belize, Cuba (2), Dominican Republic, El Salvador, Grenada, Haiti, Jamaica, Panama, St Kitts & Nevis, St Vincent & The Grenadines and Suriname*

- Data Management Workshop with SWAtHC in Montevideo, Uruguay, November 2017  
*Mexico* participated
- Digital Photogrammetry with Satellite Images training course with SWAtHC in Buenos Aires, Argentina, October 2017  
*Colombia, Guatemala, Mexico and Venezuela* participated

#### 4. Activities planned for 2018

- Technical Visit to Guatemala
- Seminar on Raising Awareness of Hydrography
- MBES Processing
- Tides & Water Levels Workshop for Spanish Speakers

#### 5. Challenges faced in the region

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 July to November; the storms can and do leave a trail of devastation on the islands and their coasts.

The 2017 Atlantic hurricane season was the fifth most active since records began in 1851 with three of the seasons major hurricanes – *Harvey*, *Irma* and *Maria* wreaking havoc in the Leeward Islands, Dominica and Puerto Rico.

The high number of SID's in the MACHC offers a unique challenge because these states generally have no hydrographic infrastructure and are usually reliant on a national Maritime Authority or some other organization for the provision of hydrographic services. Much work is still required in building and developing sustainable Hydrographic Governance in these states (needs enshrining in law). This also applies to several Central America States.

Very few of the SID's are IHO members so don't qualify for the higher-level training opportunities which are only available to members

The biggest Flag State in the world is still not an IHO member.

#### 6. Achievements and lessons learned

With the onus on the development of Phase 1 capability in the SID's - this was the second year running that a regional MSI course was organized – Phase 1 skills are being improved in many SID's.

There is close coordination between the MACHC CB Coordinator and his counterparts in the adjoining RHCs (SWAtHC & SEPRHC) and this has led to MACHC members being invited to participate in other regions activities e.g. the last two activities listed above in para 3.

Mexico's FOCAHIMECA project is building Phase 2 capability in a number of Spanish speaking states and the UK's Commonwealth Marine Economies and Overseas Territories Seabed Mapping Programmes has assisted a number of SIDs with data gathering in their littoral zones.

Venezuela secured their first place on the IHO-NF CHART Project nautical cartography training course at the UKHO in 2017.

Suriname and Panama (Canal Authority) were invited to participate in the UKHO's CAT B nautical cartography training course in early 2018.

#### 7. Conclusions:

Along with the SWPHC, the MACHC has been in the vanguard of raising hydrographic awareness through the provision of seminars preceding the annual MACHC meetings (the 2017 Seminar was the fourth). Funding the attendance of Associate and Observer nations not only guarantees attendance but also showcases the importance of regional hydrography and how all coastal states have a part to play, irrespective of size.

The Mexican and UK Government's contribution to regional capacity building has augmented the IHO's efforts and undoubtedly improved both the education and data gathering regionally.

**8. Actions required of CBSC:**

The CBSC is invited to:

- a. note the report
- b. take any action consider appropriate.

Jeff Bryant  
MACHC CB Coordinator

Annex: Assessment of Capacity Building Phase Stage of Coastal States (Excel file)

Country / Territory	NHC or NHCC	CB Phase 1	CB Phase 2	CB Phase 3	Last TV
Antigua & Barbuda	1	4	1	3	2006
Bahamas	-1	2	1	3	2006
Barbados	2	4	1	3	2006
Belize	1	2	2	3	2011
Brazil	-1	4	4	4	2008
Colombia	-1	4	4	4	N/R
Costa Rica	-1	2	1	3	2011
Cuba	1	4	4	4	N/R
Dominica	-1	2	1	3	2006
Dominican Republic	1	2	1	3	2018
El Salvador	1	2	3	3	2017
Grenada	0	4	1	3	2006
Guatemala	-1	4	4	3	2010
Guyana	-1	4	2	3	2012
Haiti	-1	1	3	3	2009
Honduras	-1	1	4	3	2010
Jamaica	2	4	1	3	2006
Mexico	-1	4	4	4	N/R
Netherlands - Antilles & Aruba (Leeward)	2	4	4	4	N/R
Netherlands - Antilles (Windward)	2	4	4	4	N/R
Nicaragua	-1	2	4	3	2005
Panama	1	4	4	3	2005
St. Kitts & Nevis	1	4	1	3	2006
St. Lucia	-1	2	1	3	2006
St. Vincent & Grenadines	0	4	1	3	2006
Suriname	2	4	4	3	2008
Trinidad & Tobago	-1	2	1	3	2006

UK - Anguilla	1	4	3	3	2006
UK - Bermuda	-1	2	3	3	
UK - British Virgin Islands	-1	2	3	3	2006
UK - Cayman Islands	-1	2	3	3	2006
UK - Montserrat	-1	2	3	3	2006
UK - Turks & Caicos	-1	2	3	3	2006
USA - Navassa	2	4	4	4	N/R
USA - Puerto Rico & US Virgin Islands	2	4	4	4	N/R
United States of America	2	4	4	4	N/R
Venezuela	-1	4	4	4	N/R

## KEY

1. The numerical grid below describes the status of the National Hydrographic Committee (NHC) / National Hydrographic Coordination Committee (NHCC):

Value	Assessment
-1	No information available
0	The country does not have a NHC / NHCC
1	The country is in the process of establishing a NHC / NHCC
2	The country has established a NHC / NHCC

2. The numerical grid below applies to the Phases:

Value	Assessment
-1	No information available
0	The country is unaware of its national obligations
1	The country is aware of its national obligations but does not have the means to do it

2	The country has the ability to fulfil national obligations
3	The country fulfils its national obligations through a third party
4	The country fulfils its national obligations in a sustainable manner

Note: the assessment represented by 3 is an alternative to 4 as explained in the IHO's Capacity Building Strategy

3. Those coastal states with a mature hydrographic service and consequently don't require a technical visit are marked as N / R (not required)