

**17th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE
IHO-CBSC17
Genoa, Italy, 29 May - 31 May 2019**

Paper for the Consideration by CBSC17

**MESOAMERICAN AND CARIBBEAN SEA
HYDROGRAPHIC COMMISSION
Capacity Building Report**

Submitted by:	MACHC CB Coordinator
Executive Summary:	This document provides a summary report of the CB activities at MACHC
Related Documents:	MACHC CB Plan 2018-2020
Related Projects:	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 Annex: Assessment of Capacity Building Phase Stage of Coastal States (Excel file).

3. Activities completed since CBSC16

- A two-day Hydrographic Awareness Seminar was organised to precede the main MACHC meeting in Cartagena, Colombia in November 2018. The following coastal states were funded to attend this Seminar: -
Anguilla, Antigua and Barbuda, Belize, Costa Rica, Dominican Republic, El Salvador, Grenada, Haiti, Honduras, Jamaica, Montserrat, Panama, St Vincent & The Grenadines, Trinidad and Tobago and Venezuela.
- An MBES processing course was delivered in Colombia, in December

Activities in conjunction with other RHCs:

- Port and Shallow Water Survey Course with SWAtHC in Buenos Aires, Argentina, September 2018
Venezuela participated
- Workshop on LiDAR technology course with SEPRHC in Guayaquil, Ecuador in October 2018
- MSI Training Course with SWAtHC in Niteroi, Brazil in October 2018
Venezuela, Guyana, El Salvador and Colombia participated

Other Activities:

- Colombia and Jamaica were selected to undertake the Cat B Hydrographic Survey Programme at KHOA.

4. Activities planned for 2019

- Seminar on Raising Awareness of Hydrography
- Phase 1 skills course

5. Challenges faced in the region

The challenges in the MACHC region are complex. The rise in numbers of all types of vessels (commercial and cruise), the increasing size of vessels transiting the new larger locks of the Panama Canal, the age/reliability of the survey data that was used to compile the existing navigational products (and in some areas the lack of data) all adds to the risk of transiting this area.

The Caribbean also endures a hurricane season which extends from July to November. 2017 was the fifth most active season and 2018 was not far behind with two sub-tropical storms, 6 tropical storms and 7 hurricanes. The impact of these storms is not measurable, and they can leave a trail of devastation on the islands, their infrastructure and the way of life of the inhabitants.

Volcanic activity, though rare can be devastating such as that experienced in Montserrat. There is a subsea volcanic area near Grenada that is often active which can change the hydrography dramatically and impacts shipping. In 2018 an exclusion zone was established around Kick 'em Jenny volcano located 8km off Grenada in the shipping route from St Vincent to Grenada for fear that increased gases could reduce the buoyancy of ships.

The high number of Small Island Developing States (SIDS) 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 American States.

The UKs Commonwealth Marine Economies (CME) and Overseas Territories Programmes (OTSMP), have worked across the region to improve the maritime framework through the development of hydrographic governance, undertaking seabed mapping to update navigational products assisting territories and countries in scope to meet their international obligations.

The OTSMP has this year held a workshop for all territories in scope focusing on the development of hydrographic governance building towards Phase 1 compliance.

The CME programme is aimed at helping the most vulnerable SIDS make the most of their natural maritime advantages, to enable sustainable economic growth and alleviate poverty. Under the programme a number of SIDS have benefitted from the development of Phase 2 training, building their data gathering capabilities.

Very few of the SIDS are IHO members so do not qualify for the higher-level training opportunities which are only available to members.

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

6. Achievements and lessons learned

The 2018 Seminar on Hydrographic Governance prior to the MACHC included a workshop on dealing with maritime disasters. It produced a draft Disaster Response Plan Framework that the MACHC will elaborate into a more detailed plan with preparation, response and communication actions. Sharing best practices from other RHCs in developing a viable plan would be very useful as many components are likely to be quite similar.

There has been close coordination between the MACHC CB Coordinator and the other CB 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.

In addition to the neighboring RHCs (SEPRHC, SWAtHC), the MACHC is expanding its partnerships with other regional organizations to collaborate and leverage resources for capacity building. These include IOCARIBE, the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS), and the Central American Marine Transportation Commission (COCATRAM).

For example, all of these entities are co-sponsors of a proposed 2020 CB training on Tides and Water Levels for Spanish speakers, in support of more accurate hydrographic surveys and improved regional early warning systems.

The value of increased collaboration across RHCs and regional partnerships for capacity building training requires concerted effort to identify the specific activities of common interest. The MACHC is doing this through development of a calendar of training opportunities to include offerings from both member states, regional organization and private sector partners. This will allow the MACHC to better coordinate and leverage resources and target capacity building efforts for mutual benefit.

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, hydrographic governance and data management in their littoral zones. Furthermore, the UK's approach to promoting the onward usage of seabed mapping data through its international programmes has gone a long way to raising the profile and importance of hydrography as a component part of Oceans Governance Policy.

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 2018 Seminar was the fifth). 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. consider providing common guidance and lessons learned/best practices for RHC disaster response plans to be shared across RHCs.
- c. Encourage all RHCs to collaborate on CB training of common interest to maximize the use of CB funds.
- d. take any other action considered appropriate.

Lucy Fieldhouse
MACHC CB Coordinator

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