**REPORT OF THE MESO AMERICAN AND CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC)**

**to IHO Assembly 2**

***(to be updated post MACHC20)***

**Chair**

Rear Admiral Fernando Alfonso RODRIGUEZ ANGLI Mexico until March 2017

Rear Admiral Enrique FLORES MORADO Mexico March 2017 to March 2019

Ms. Katie Ries US March 2019 to present

**Vice-Chair**

Ms. Katie Ries US March 2017 to March 2019

Vice Admiral Antonio Fernando Garcez Faria Brazil March 2019 to August 2019

Vice Admiral Marcos Borges Serta Brazil August 2019 to present

**Membership**

**Members:** Brazil, Colombia, Cuba, Dominican Republic, France, Guatemala, Guyana, Jamaica, Mexico, Netherlands, Suriname, Trinidad and Tobago, United Kingdom, United States of America, Venezuela.

**Associate Members:** Antigua and Barbuda, Barbados, Belize, Costa Rica, El Salvador, Grenada, Haiti, Honduras, Nicaragua, Panama, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines.

During this reporting period, the Dominican Republic has regained full membership and Guyana has acceded into the IHO and is now a full member of MACHC as well.

**Meetings**

The MACHC has met annually since the close of the 1st Assembly in 2017, as follows.

18th Conference Varadero, Cuba November 2017

19th Conference Cartagena de Indias, Colombia November 2018

20th Conference Santo Domingo, Dominican Republic December 2019

**Agenda Items**

The main topics dealt with during the reporting period were primarily organized around the following MACHC Committees and Working Groups. Here follows some of their major accomplishments:

1. MACHC Integrated Charting Coordination Working Group (MICC)
* MACHC ENC Online established
* Increasing Availability of ENCs in Region:

 ENC Cells available in

* + 2016: - 760
	+ 2017: - 842
	+ 2018: - 914
	+ 2019: - xxx
* Ports Analysis evaluation to identify gaps
	+ 43 Ports lacking large scale coverage
	+ 14 of the 43 have ENC coverage planned
1. MACHC Capacity Building Committee (CBC)
* Technical Visits to:
	1. El Salvador – 2017
	2. Dominican Republic – 2018
	3. Guatemala - 2019
* Held three Hydrographic Governance Seminars in 2018, 2019 and 2020 for non-IHO member coastal states. The 2019 Seminar generated a Disaster Response Framework adopted by the MACHC. The 2020 Seminar included a half-day training on Introduction to MSDI, using the new IHO MSDI training materials (that were well received….)
* Held a regional Maritime Safety Information Training course in Brazil in 2018, organized by SWAtHC but with participation of MACHC Members' representatives. Another course was held in the Dominican Republic in 2019. Evaluated the regional status of MSI to help better prioritize participation in future training sessions. This training had participants from Colombia, El Salvador, Guyana and Venezuela.
* Training on Tides and Water Levels for Spanish Speakers to be held in 2020.

Co-sponsors include the Intergovernmental Coordination Group for the Tsunami and other Coastal Hazards Warning System for the Caribbean and Adjacent Regions (ICG/CARIBE EWS), the Central American Marine Transportation Commission (COCATRAM ) and neighboring RHCs (SEPRHC, SWAtHC)

c) MACHC Marine Spatial Data Infrastructure Working Group (MMSDI—established in 2019)

* Initiated an inventory of MSDI data holdings
* Established a website portal to make key data sets (bathymetry, shoreline and maritime boundaries) more accessible for non-navigation uses, such as a regional risk assessment for maritime accidents and management of marine protected areas.
* Contributed some of these datasets to the Caribbean Marine Atlas, an existing regional geospatial data platform.
* Increased Bathymetric contributions to the IHO DCDB and to the Seabed2030 Regional Data Center for the Atlantic and Indian Oceans.
* Established linkages with the UN-GGIM effort.

**Difficulties encountered and challenges yet to be addressed**

* Full ENC coverage not yet achieved
* Finding ways to increase alternate sources of funding and partnerships for capacity building, as level of capabilities is still very uneven.
* Increasing the access to and delivery of authoritative data layers from electronic navigation charts satisfy non-navigation regional demands
* Increasing the regional contributions of existing data and to catalyze collaboration to fill gaps for Seabed 2030.
* Continuing to develop and exercise a Disaster Response Plan

**Achievements/Outputs/Conclusions**

* Coverage of nautical charts in the region has not been reached, however it has been possible to identify areas of cartographic interest through of cruise ship analysis through AIS information. There is also a great interest in the development of a methodology for the evaluation of hydrographic risk of the region by the different countries.
* Success achieved in finding regional co-sponsors for capacity building training, as mentioned above for the Tides and Water Levels training for Spanish speakers. This needs to be built upon and expanded since IHO CB funds are shrinking. Some countries in the region have national training offerings that can be better leveraged to support.
* There is also a renewed interest in MSDI, as evidenced by the new MACHC MSDI WG, and the involvement of MACHC members in the working group on marine spatial information of the UN-GGIM.
* Guyana became a new (90th) Member State of the IHO as of 18 April 2019 and officially became a member of the MACHC in December 2019. All coastal states of South America are now IHO Members!
* The Disaster Response Framework was successfully utilized in the response to the impacts of Hurricane Dorian on the Bahamas
* Reinvigorated the International Bathymetric Chart of the Caribbean (IBCCA)
* Collaboration established with Seabed 2030 Regional Data Center for the Atlantic
* A new MACHC Initiative Website created to focus major work efforts and have a centralized place for related documents (does not duplicate the IHO MACHC site).

**Actions required of the Assembly**

The Assembly is invited to note this report.