

## 21 MEETING OF THE MESO AMERICAN – CARIBBEAN SEA HYDROGRAPHIC COMMISSION (MACHC21)

30 November, 1-3 December 2020

### NATIONAL REPORTS FROM COSTA RICA TO THE MACHC21

- References:
1. IHO Resolution 2/1997 as amended.
  2. IHO ACL 27/2020 dated 25 June 2020 – approval of the second tranche of proposals originally for consideration by the 2nd session of the assembly.
  3. Decision No.9 of A-2, 2020.

The following structure is to be used for National Reports made to RHC meetings:

#### Executive summary

1. Hydrographic Office / Service:

National Geographic Institute of Costa Rica.

2. Surveys:

Coverage of new surveys: Not applicable.

New technologies and /or equipment: Not applicable.

New ships: Not applicable.

Crowdsourced and satellite-derived bathymetry - national policy: Not applicable.

Challenges and achievements:

Challenges:

- Create a National Hydrography Committee, or any other similar structure.
- That this structure, elaborate a work plan for hydrographic development, the elaboration and publication of nautical charts and actions for the strengthening of navigation safety.
- Establish international cooperation agreements for the development of hydrographic surveys and the production of nautical charts.

- The COVID-19 pandemic that is going through the world affects the jobs that countries do.

Achievements:

- Incorporation and participation of the National Geographic Institute of Costa Rica in the Meso American & Caribbean Sea Hydrographic Commission (MACHC).
- Increased country rapprochement with the Meso American & Caribbean Sea Hydrographic Commission (MACHC) as well as with the International Hydrographic Organization (IHO).
- Increased country participation in the Seabed 2030 Project by appointing a national contact point.

Participation in the WeBinars Seabed 2030 series held on September 11, September 25, October 9 and October 25, 2020.

- Within the framework of the IBCCA (International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico) project, the revision of the 1-12 chart that is the responsibility of the country was completed.
- Conclusion of bathymetric surveys in the lower sector southeast of the maritime boundary between Costa Rica and Ecuador.

**3. New charts & updates:**

ENC coverage, gaps and overlaps:  
Not applicable.

ENC distribution method: Not applicable.

RNCs: Not applicable.

INT charts: Not applicable.

National paper charts: Not applicable.

Other charts, e.g. for pleasure craft: Not applicable.

Challenges and achievements: Not applicable.

**4. New publications & updates:**

New Publications: Not applicable.

Updated publications: Not applicable.

Means of delivery, e.g. paper, digital: Not applicable.

Challenges and achievements: Not applicable.

**5. MSI:**

Existing infrastructure for MSI dissemination:

Important maritime safety information is disseminated to navigators, through the publication of notices on the website of the Ministry of Public Works and Transportation.

Statistics on work of the National Coordinator: Not applicable.

New infrastructure in accordance with GMDSS Master Plan: Not applicable.

Challenges and achievements:

Challenges:

Review the form called IHO / OHI Publication C-55 (Status of Hydrographic Surveying and Charting Worldwide) to include the information corresponding to Costa Rica.

**6. C-55:**

Latest update: No change in Annex B.

**7. Capacity Building:**

Offer of and/or demand for Capacity Building:

Training is required for specialization in nautical chart development, as well as in CADET B.

Training received, needed, offered: See previous point.

Status of national, bilateral, multilateral, or regional development projects with hydrographic component. (In progress, planned, under evaluation or study):

The following two draft agreements are under analysis:

- With the United Kingdom Hydrographic Office (UKHO) for cooperation and dissemination of paper and digital nautical charts.
- With the National Geospatial Intelligence Agency of the United States of America (NGA), for the development and training of nautical charts.

A Workshop on Tide Gauges and Sea Level Data Analysis will be held in collaboration with the CARIBE-EWS and SINAMOT-UNA (National Tsunami Monitoring System of the National University of Costa Rica) in 2021.

Definition of proposals and requests to the IHO CBSC:

A specialized course is required for the development of digital nautical cartography and the processing of nautical information.

## 8. Oceanographic activities:

General:

Timely periodic bathymetric monitoring was carried out in the following places of national interest:

- Port of Caldera, Puntarenas.
  - Terminal Barrio El Carmen Cabotage, Puntarenas.
  - La Angostura Sector, Puntarenas.
  - Port of Punta Morales, Puntarenas.
- Previous bathymetric surveys can be viewed in the following [link](#)
- Culebra Bay, Guanacaste
  - Potrero Bay, Guanacaste
  - Tamarindo Bay, Guanacaste
  - Samara Bay, Guanacaste
  - Jaco, Puntarenas
  - Quepos, Puntarenas

GEBCO/IBC's activities, GEBCO Seabed 2030 activities:

Increased country participation in the Seabed 2030 Project by appointing a national contact point.

Participation in the WeBinars Seabed 2030 series held on September 11, September 25, October 9 and October 25, 2020.

Tide gauge network:

No tide gauges have been purchased. The current gauges are managed by National Tsunami Monitoring System (SINAMOT) Program, at National University of Costa Rica (UNA) and can be seen in <http://www.sinamot.una.ac.cr/index.php/nuestro-trabajo/mareografos-costarica>

New equipment: Not applicable.

Challenges and achievements: Not applicable.

**9. Spatial data infrastructures:**

Status of MSDI:

There is no Marine Spatial Data Infrastructure (MSDI).

Relationship with the NSDI:  
No relationship.

Involvement in regional or global MSDI efforts:  
We have not participated.

National implementation of the Shared Data Principles – including any national data policy and impact on marine data:  
Not applicable.

MSDI national portal:  
There is not

Best practices and lessons learned:  
Not applicable.

Challenges and achievements:

Challenge: Start with the creation of a Marine Spatial Data Infrastructure (MSDI).

**10. Innovation:**

Use of new technologies:  
Not applicable.

Risk assessment:  
Not applicable.

Policy matters:  
Not applicable.

**11. Other activities:**

Participation in IHO meetings:

- Meso American & Caribbean Sea Hydrographic Commission (MACHC).
- International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico (IBBCA).
- The Nippon Foundation-GEBCO Seabed 2030 Project.

Meteorological data collection:

In Costa Rica we have the National Meteorological Institute.

Geospatial studies:

The National Geographic Institute of Costa Rica does multiple geospatial studies.

Preparation for responses to disasters:

In Costa Rica we have the National Commission for Risk Prevention and Emergency Assistance.

Environmental protection:

The office in charge is the Ministry of Environment and Energy.

Engagement with the Maritime Administration:

We do not have a national maritime administration.

Aids to Navigation matters:

- The Maritime Port Division of the Ministry of Public Works and Transportation has a database of all floating and land navigation aids in ports nationwide. This information is obtained through each port.
- The National Tsunami Monitoring System (SINAMOT) of the National University of Costa Rica (UNA) constantly develops educational and informative material for the prevention and attention of tsunami emergencies. This year, it produced a brochure called **Safety for Boaters in Case of Tsunami**.

Magnetic and gravity surveys:

The active and passive national geodetic framework is the responsibility of the National Geographic Institute of Costa Rica.

International engagements: Not applicable.

## 12. Conclusions:

There is no organization in Costa Rica that is regularly responsible for the execution of hydrographic surveys for the updating of nautical charts.

There is no system for handling and disseminating sensitive information for navigation security.

There is no National Hydrographic Committee that is responsible for everything related to the hydrography of the country, which endeavors and plans the actions.

We do not have Marine Spatial Data Infrastructure (MSDI).

It is necessary to carry out hydrographic surveys as such at the country level.

It is necessary to carry out continuously and permanently, the nautical charts of the country.

There are no specialized and trained human resources in hydrographic matters and nautical cartography.