# 21<sup>th</sup> Meeting of the Meso America – Caribbean Sea Hydrographic Commission

National Report by

**CUBA** 

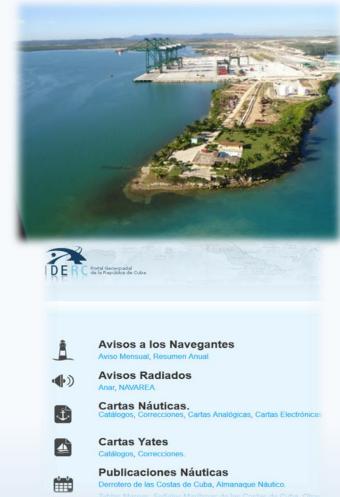






# Achievements during the year

#### NEW HYDROGRAPHIC SURVEYS WITH CARTOGRAPHIC PURPOSES



New hydrographic studies with cartographic purposes, with coverage of I and II order with single beam echo sounders in coastal sections, canals and ports and interior of bays (3180.0 km²) and Special and I order with multi-beam echo sounder in 3 bays (20210.0 km²).

The cartographic coverage was increased with a total of 75 electronic nautical charts, including 45 in distribution, 186 paper charts and 186 BSB with a total of 11 new editions and new editions of the 8 official yacht chart albums.



The updating, dissemination of notices to mariners and nautical warnings and the exchange of information on maritime safety with the general coordinator of the area (NAVAREA IV) was maintained.





## Top challenges and obstructions

#### We need:

- 1. Related to Nautical Cartography.
  - > ENC validation software.
  - CARIS Software Updates.
  - Convert the nautical charts S-57 ENCs to S-101 ENCs.
  - 2. Increase our participation in IHO capacity building projects.





# Top Plans that affect the region

It is necessary to improve the Infrastructure of the Radio Coastal stations network to guarantee the dissemination of:

- 1. BROADCAST navigation information (S-53).
- 2. GMDSS Application (IMO Publication 970 SMSSM Manual).
- 3. Support for the necessary training in topics of:
- Marine spatial data infrastructure
- Nautical Cartography
- Hydrography
- Delimitation of maritime spaces





# Top 2 recommendations for MACHC plenary

We consider the highest priority for capacity building that must be financed by IHO CB (Phase 1):

Training in Maritime Safety information.

We consider it a higher priority for capacity building (Phase 2 or Phase 3) that should be financed outside of IHO CB.

- Courses for Spanish speakers.
- ➤ Participation in Nautical Cartography (Cat A and Cat B) and Hydrography (Cat A and Cat B) programs.





# IHO Capacity Building Phase Reference





### Referencia: Fases de la Construcción de Capacidad de la OHI

#### Fase 1

- Minimal training needed
- Strengthen links with NAVAREA Coordinator to enable the promulgation of safety information.

#### Fase 2

- Establish capacity to enable surveys of ports and their approaches.
- Maintain adequate aids to navigation para la navegación
- Requires funding for training, advising & equipment or contract survey

#### Fase 3

 Requires investment for production, distribution and updating



