

**20th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE  
IHO-CBSC20  
Denpasar – Bali, Indonesia + VTC (Hybrid meeting), 1-3 June 2022**

**Paper for the Consideration by CBSC20**

**SEPRHC Report**

<b>Submitted by:</b>	SEPRHC CB Coordinator
<b>Executive Summary:</b>	This document provides a summary report of the CB activities at SEPRHC.
<b>Related Documents:</b>	SEPRHC 3y CB Plan – SEPRHC CBSC19 Report
<b>Related Projects:</b>	2022 CBWP P-07, P-13, P-17, P-19, P-22, P-23 and 2023 Submissions.

## **1. Introduction / Background**

The Southeast Pacific Regional Hydrographic Commission is integrated by: Chile, Colombia, Ecuador and Peru, in addition to the participation of Panama, as observer.

The Regional organization is based on the statutes of the Regional Commission and its objectives, published on the IHO website. The Commission aims to promote technical cooperation, extend hydrographic activity in the region and facilitate exchange of related technical information, among others purposes. In the context of capacity building, the Region has the vision of an integral and continuous development, accordingly to the technological needs of hydro-carto-oceanographic activity, in a relatively homogeneous way amongst the Hydrographic Services that comprise it, taking into account joint work, in a spirit of collaboration and coordination that allows the achievement of the common objectives that animate the Region.

In this way, such objectives are aligned with the principles and objectives set out in the IHO Capacity Building Strategy, to achieve comprehensive and coordinated development among the countries of the Region, following principles of realistic planning, constrained to the limitations of resources (Human, financial and time), and working in a coordinated and collaborative way with the Region and the IHO. Therefore, SEPRHC has designed its 3-year Capacity Building plan following these 3 main lines of development, consequent and consistently with IHO SP:

- a. Migration to the OHI S-100 standard and its derived standards.
- b. Marine Spatial Data Infrastructure, management, processing and quality control.
- c. Incorporation and use of new technologies in hydrographic surveys.

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

The Assessment of CB Phase Stage of SEPRHC States, in accordance with the CB Procedure 11, is provided in the Annex.

### 3. Activities completed since CBSC19

Regarding the projects submitted by the Region, according to the 2021 CBWP, the financial support received by CBSC was for project P-14 “Workshop on MSI”:

Nr.	PROJECT	BUDGET	RESOURCES
P-14	Workshop on MSI	22 731 €	IHO passed to 2022
P-22	Workshop “Update coastline for nautical cartography through the use of unmanned aerial vehicles”	29 499 €	Not yet founded
P-27	Workshop on CSB	29 740 €	Not yet founded
P-30	Technical Workshop on standardization in the use of software tools “CARIS Composer Paper Chart”	27 820 €	Not yet founded

Since CBSC19, the Region keeps developing its own capabilities with regular courses, internships and workshops. Thus, Region’s States continue with their ICA-FIG-IHO Category “A” and “B” training programs, preparing and graduating hydrographers for their navies and foreign students.

Also, participating in:

- a. Virtual Course in Coach Training in Korea 2021.
- b. Course in Marine Geospatial Analysis and Cartography.
- c. Virtual courses on maritime signaling: Maritime lights and beacons. Management of the authorization process to install, modify and/or extend Navigation Aids.

### 4. Activities planned for 2022

Regarding CBSC 2022 CBWP, P-14 “Workshop on MSI” was moved from 2021 to 2022 and the project P-07 “Bathymetric Database Management workshop” has its budget assigned, but in accordance with SEPRHC submitted projects in 2021, projects P-13, P-17, P-19, P-22, P-23 are not yet founded.

Nr.	PROJECT	BUDGET	RESOURCES
P-07	Bathymetric Database Management	26 060 €	IHO
P-13	S-100 (training on assessment of status and execute step by step with practical exercises)	26 665 €	Not yet founded
P-17	Train for Training	26 665 €	Not yet founded
P-19	Nautical Paper Charts Quality Control (QC)	35 000 €	Not yet founded
P-22	S-101 Workshop	27 820 €	Not yet founded
P-23	S-102 Workshop	27 820 €	Not yet founded

Nevertheless, the Region keeps regular courses like ICA-FIG-IHO Category “A” and “B” training programs. Likewise, the Region will keep developing its own capabilities organizing internships and workshops supported by each State Hydrographic Office budgets, especially in the three main areas considered relevant to follow the IHO SP, such as MSDI national efforts, incorporation of new survey technologies and S-1XX trainings.

Notwithstanding the foregoing, Region's States have applicants to invitations received from IHO to UKHO, Korea, University of New Hampshire, University of Southern Mississippi training programs.

## **5. Challenges faced in the region**

In terms of technical challenges, during the period, as well as it has been the latest years, in line with IHO SP, the Region had faced:

- a. Migration of the current work structure to the IHO S-100 and S-1XX Universal Hydrographic Data Model.
- b. Survey of hydrographic and topographic data with AUV's technology.
- c. Geomorphological identification of underwater geofoms.

But the Region also has faced financial-administrative issues:

Pandemic drove governments to redirect budget priorities, declining and reducing resources for Hydrographic Offices. Thus, HO's have been challenged to keep on track, optimizing resources in order to keep up to the level of products and production, accordingly with the demand and the quality of the cartographic products generated, fulfilling the permanent task of providing safety to navigation.

## **6. Achievements and lessons learned**

Despite pandemic, budget issues and non-financed projects, the Region works hard to stay at the forefront with its capabilities. Either on the production line, training and capacity building.

Pandemic, specially, allowed and reinforced the development of virtual education, but in hydrography, practical teaching is definitively necessary; particularly these days, where all the trends in technical and upper studies are applying and requiring competence learning models, with students not only full of knowledge, but also with attitude and aptitudes to become complete professionals.

The last couple of years, adaptation and reorganization have been the motto in all the relevant aspects for Region HO's, from training to production processes. The pandemic demonstrated the importance of the products delivered by the Hydrographic Offices, and also revealed the technological conditions in hardware and software available to the HO's, encouraging to implement new tools for the execution of tasks in accordance with current conditions.

## **7. Conclusions:**

Many challenges have been faced globally and by the Region, nevertheless and against the odds, SEPRHC is committed to keep designing, proposing and carrying out Capacity Building activities according to IHO SP.

**8. Actions required of CBSC:**

The CBSC is invited to:

- a. Note the report
- b. Take any action consider appropriate.

Felipe Barrios Burnett  
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