

**20th MEETING OF THE IHO CAPACITY BUILDING SUB-COMMITTEE
IHO-CBSC21
Tokyo – Japan, 7-9 June 2023**

Paper for the Consideration by CBSC21

SEPRHC Report

Submitted by:	SEPRHC CB Coordinator
Executive Summary:	This document provides a summary report of the CB activities at SEPRHC.
Related Documents:	SEPRHC 3y CB Plan – SEPRHC CBSC20 Report
Related Projects:	2022 CBWP P-07, P-13, P-17, P-19, P-22, P-23 and P-36 2023 CBWP P-10, P-15, P-18, P-19, P-22, P-23 and 2024 CBWP 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 CBSC20

Regarding the projects submitted by the Region and according to the 2022 CBWP, CBSC provided the financial support for projects P-07 “Bathymetric Database Management” and P-36 “Workshop on MSI”:

2022 CBWP

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 founded
P-17	Train for Training	26 665 €	Not founded
P-19	Nautical Paper Charts Quality Control (QC)	35 000 €	Not founded
P-22	S-101 Workshop	27 820 €	Not founded
P-23	S-102 Workshop	27 820 €	Not founded
P-36	Workshop on MSI (from 2021CBWP P-14)	22 731 €	IHO from 2021

P-07 “Bathymetric Database Management” 28-Nov to 02-Dec-2022.

INOCAR Guayaquil, Ecuador.

15 attendees: 11 SEPRHC, 2 SWAtHC, and 2 MACHC.

P-36 “Workshop on MSI”. 26 to 30-Sep-2023.

DIMAR-CIOH Cartagena de Indias, Colombia.

21 attendees: 17 SEPRHC, 2 SWAtHC, and 2 MACHC.

Thanks to timely coordination and respective invitation the Region had 1 participant in SWAtHC project P-40 “Port and Shallow Water Survey Course”, 10 to 14-Oct-2022, hosted by DHN in Niteroi, Brazil.

Since CBSC20, 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.

4. Activities planned for 2023

Regarding CBSC 2023 CBWP, SEPRHC submitted 6 projects, all of them “Not yet founded”:

Nr.	PROJECT	BUDGET	RESOURCES
P-10	Workshop on MSDI implementation and development	26 655 €	Not yet founded
P-15	Administration and production on bathymetric Data Bases	23 150 €	Not yet founded
P-18	Workshop on QC and data processing	26 665 €	Not yet founded
P-19	Workshop on AUV for Hydrographic and Topographic Surveys	46 800 €	Not yet founded
P-22	S-101 and S-102 Workshop	30 247 €	Not yet founded
P-23	Use of automated statistical filters for bathymetric data processing.	23 150 €	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, cruises 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. Thereby, one technician was selected to attend IHO-Nippon Foundation GeoMAC Project Cat. “B” cartography training course, from July 17th to December 15th 2023.

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. Surveying with new technologies likewise AUV’s.
- c. Geomorphological identification of underwater features.

But the Region also has faced financial-administrative issues:

For public services and offices post-pandemic effects in budgeting still impact 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 the 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.

The last couple of years allowed, encouraged and reinforced the necessity for development of virtual education, but in hydrography, practical teaching is definitively a must; particularly these days, where all the trends in technical and upper studies are applying and requiring higher competence in learning models, with students not only full of knowledge, but also with attitude and aptitudes to become complete professionals, therefore hydrography, cartography, data processing and so need to be taught face to face or “hands-on”.

In this way, coordination and joint efforts have driven the Region to the decision in presenting only one project for CBWP 2024.

7. Conclusions:

The Region acknowledges the CBSC effort to financially support the projects submitted, regarding the resources scarcity. Many challenges have been faced globally and by the Region, against the odds, SEPRHC is committed to keep designing, proposing and carrying out Capacity Building activities according to IHO SP. However, in respect of Regional objectives y Capacity Building there is still much to do.

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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