

REPORT OF THE SOUTH WEST ATLANTIC HYDROGRAPHIC COMMISSION (SWAtHC)

1. Chair

Captain Pablo TABÁREZ: Uruguay, since January 2018 until 01 April 2020. Captain José DOMÍNGUEZ: Uruguay, since 01 April 2020 until October 2020. Commodore Valentin Alejandro SANZ RODRIGUEZ: Argentina, since October 2020.

Vice Chair

Commodore Valentin Alejandro SANZ RODRIGUEZ: Argentina, since March 2017 until October 2020. Vice Admiral Edgar Luiz Siqueira BARBOSA: Brazil, since October 2020

2. Membership

Members: Argentina, Brazil, Uruguay

Associate Members: Paraguay

Observers: Bolivia

3. Meetings

13th SWAtHC Conference	Buenos Aires, Argentina	25 - 26 April 2019
14th SWAtHC Conference	Niteroi, Brazil	9 - 10 March 2020
15 th SWAtHC Conference	Montevideo, Uruguay	31 August - 1 September 2021

The 15th SWAtHC Conference was first scheduled for March 2021, but due to the pandemic situation was proposed to postpone it to the date mentioned above. SWAtHC Members agreed to define the format event (VTC or face-to-face meeting) 45 days prior to the date event.

4. Current SWAtHC Working Groups

- Planning Committee

5. Status of IRCC Actions (relevant for the SWAtHC): relative IRCC12

N.	Action	Status
1	RHC to Instruct Member States in the promotion and distribution of publication of S-67 Mariners' Guide to Accuracy of Depth Information in Electronic Navigational Charts (ENC) to the Marine Institutions and Education Schools.	Done
2	Member States to review the paper on the Future of Paper Charts and provide feedback on it.	In progress.
3	Member States strongly encouraged to continue updating C-55.	Permanent action.

4	RHC to implement the IHO Resolution 2/1997 as amended by A-2.	In progress.
6	Invited the Member States who have experience in developing and providing e-Learning contents to share their resources and experiences to the e-Learning PT.	Done.
11	Promote the discussion of any item with relevance to SDI/MSDI/MSP and to take appropriate actions.	SWAtHC approved action to promote the activity of SDI in the region.
12	Consider CSB and Seabed 2030 initiatives be permanently added as an agenda item at future RHC meetings.	Done.
13	Encourage Member States to support the CSB initiative with positive actions, such as requiring all research vessels to collect bathymetric data for later uploading, when on passage or when it does not interfere with other research activities.	Done.
14	Support the modification of the current "RHC Seabed 2030 Coordinator" to a joint "RHC CSB/Seabed 2030 Coordinator" and provide the identification of the Coordinators.	Done. Coordinator: Commander Niki Silvera (SOHMA)
16	Encourage Member States to release datasets or subsets into the public domain via the IHO DCDB.	Done. Some Members provided or will provide data to IHO DCDB.
17	Encourage Member States to promote the vital need to map the entire seabed.	SWAtHC continuous action during meetings
19	Encourage all Member States to make existing seabed mapping data available for use by Seabed 2030 in the GEBCO Grid.	In progress. Some Members provided or will provide data.
20	RHC to participate at Regional level in those actions of the UN Ocean Decade matching with IHO's new strategic targets (IRCC12-08C).	Done.

6. Agenda Items

Due to the COVID 19 pandemic, which has affected the countries of the region and the world, the SWAtHC15 Conference, that would have been prior to the IRCC13 Meeting, was postponed as mentioned before. Therefore, the permanent agenda presented at IRCC12, after the SWAtHC14 was held, remains in force.

- a. The SWAtHC Conferences tend to work with a permanent agenda with amendments for the new issues as they arise. The main topics in the agenda, transacted during the before-mentioned meetings, are:
 - i. NAVAREA V and VI Contingency Plan is signed between the Argentine and the Brazilian Hydrographic Services. Yearly exercises are performed by both Hydrographic Services.

- ii. Revision and update of SWAtHC Statutes.
- iii. Creation and progress of the Regional IC-ENC Coordinating Centre.

The IC-ENC Latin America completed 5 years of high productivity. Its team did not even stop its work during the pandemic. It has validated more than 2,000 ENC cells per year in 2019 and 2020. During the period of the existence of the IC-ENC Latin America, it has validated ENC cells from more than 40 IC-ENC members.
- iv. Current situation of Chart INT2010: in process.
- v. Commission Representation at the IHO Council. In November 2020, Argentina become member of the IHO Council, after decision during the 2nd Session of the IHO Assembly.
- vi. Presentation of national and IHO Secretariat reports.

Three Articles were published in the “International Hydrographic Review” (IHR) in 2019 and 2020:

 - “Methodogy for Quality Analysis of Regional Bathymetric Surfaces”, by LCDR C. Florentino, LCDR V.B Pimentel, A. A. Neto, IHR n° 22, Nov 2019;
 - "Evaluation of the precision of phase-measuring bathymetric side scan sonar relative to multibeam echosounders", by LCDR V. B. Pimentel, LCDR C. Florentino, A. A. Neto, IHR n° 24, Nov 2020; and
 - "Morphogravimetric Characterization of the Eastern and Southern Regions of the Brazilian continental shelf", by F. Pereira Batista; G. L. Galvão Teixeira; L. Carlos Torres, IHR n° 24, Nov 2020.
- vii. Submission of reports drafted by Working Groups and Committees:
 - a. Planning Committee (SWAtHC INT Chart and ENC Schemes, SWAtHC Capacity Building Plan).
 - b. CBSC – WENDWG - IEHG – IRCC – S-100WG.
 - c. GEBCO / Seabed 2030 Progress.
- viii. Update of IHO C-55 and P-5 Publications.
- ix. Signature and ratification of the membership application to the Commission submitted by the “Plurinational State of Bolivia”.
- x. SWAtHC Capacity Building Coordination, Trainings and workshops:

2018

- a. Workshop on Maritime Safety Information - MSI (DHN), conducted by instructors from US National Geospatial-Intelligence Agency (NGA) with the participation of 18 representatives from Brazil, Argentina, Uruguay, Paraguay, Bolivia, Colombia, El Salvador, Guyana, Venezuela, Ecuador, Peru and Liberia. The course provided the opportunity for representatives of regional hydrographic communities to gain insight into the importance of the MSI and how to act to report certain events preventing a significant impact on safety of navigation in coastal regions.
- b. Practical workshop on surveys in ports and at shallow waters (SHN), was performed by specialized personnel from Teledyne CARIS and attended by 31 representatives from Argentina, Brazil, Uruguay and Venezuela
- c. International Workshop on Methodology for Bathymetric surveys with LIDAR sensors in Shallow Waters, held in the city of Guayaquil, Ecuador hosted by SEPRHC with two attendees from SWAtHC, one from DHN and another from SOHMA.

- d. MBES Processing Workshop, in the city of Cartagena de Indias, Colombia, at the invitation of MACHC, attended by one Official from the SHN.

2019

- a. Workshop on MBES Data Processing using CARIS Hips & Sips, held in the Brazilian Hydrographic Office (DHN) and conducted by the representatives from Brazil that attended the Practical Workshop on Surveys in Ports and at Shallow Waters in 2018 in Argentina, in order to spread out the knowledge to hydrographic surveyors of the Brazilian survey vessels.
- b. One representative from the Bolivian Navy attended the Cat “A” Advanced Course in Hydrography (CAHO) offered by the Brazilian Hydrographic Office (DHN) free of charge.

2020

- a. One representative from Senegal attended the Basic Course in Hydrography offered by the Brazilian Hydrographic Office (DHN) free of charge.
- b. Seminar on Raising Awareness of Hydrography. After 14th SWAtHC meeting, a seminar was arranged with the dual objective of raising awareness of the importance of hydrography for the Associate Member and Observer of SWAtHC, as well as to give to their representatives the opportunity to participate in this RHC meeting, exposing them the benefits of being proactive members of the Commission and encouraging eventual membership of IHO. In order to present the importance and economic advantages of an adequate Hydrographic Governance, the speakers addressed the visions of topics related to IHO, IMO, IALA, SOLAS Convention (Chapter V), the Capacity Building Strategy and the structure of a national hydrographic office.
- c. Technical Visit to Bolivia. It has been affected by the incidence of the pandemic and it was postponed. SWAtHC intend to carry out this event in the second semester of 2022, and it was submitted to the CBSC, in May 2021.

2021

- a. SWAtHC has proposed the following events planned for 2021, with their respective priorities within the current Capacity Building Work Plan:

- 1- Technical Visit to Bolivia;
- 2- Seminar on Raising Awareness of Hydrography;
- 3- Port and Shallow Water Survey Course;
- 4- MBES Data Processing and bathymetry database Workshop
- 5- Data Management Workshop.

As explained before, due to pandemic situation, SWAtHC proposed to postpone to 2022 the Technical Visit; and intend to carry out the Port and Shallow Water Survey Course by VTC.

Within the 2021 CB Work Program, DHN will host a Port and Shallow Water Survey Course that will likely be in October 2021. Although the training is within the SWAtHC Capacity Building Work Plan, DHN has reserved 02 seats for MACHC and SEPRHC members to participate.

- b. In March and April 2021, representatives from the Brazilian Hydrographic Office attended the UKHO online courses on Understanding ENC's, Introduction to S-57

and Compiling for Navigational Safety.

2022

SWAtHC submitted to CBSC the following proposals, in priority order:

- 1- Technical Visit to Bolivia (deferred from 2020);
- 2- Seminar on Raising Awareness of Hydrography;
- 3- MBES Data Processing Course;
- 4- Basic ENC production Course;
- 5- MSDI and Data Management Workshop.

7. Difficulties encountered and challenges yet to be addressed

a) Difficulties:

- i. The main difficulty encountered is the lack of qualified personnel available versus the increase of workload.
- ii. Shortage of Spanish speaking trainers.

b) Challenges:

- i. The main challenge yet to be addressed is the implementation of S-100.
- ii. In order to be more eligible to receive support from IHO Capacity Building Funds, SWAtHC will propose training courses in conjunction with the neighboring RHCs.
- iii. Carrying out and broadening of trainings and workshops within or beyond the scope of the CBSC.

8. Achievements/Outputs/Conclusions

- a) SWAtHC is committed to carrying forward hydrographic and cartographic activities and cooperates in capacity building in straight alignment with IHO objectives and goals and to coordinate charts and ENCs production. Also, harmonizes boundaries and data and stimulates participation of all regional countries. The high-level of harmonization, quantity of training performed and absence of overlaps in ENCs is a good indicator of the success of SWAtHC member's efforts.
- b) SWAtHC full members have approved the request of the "Servicio Nacional de Hidrografía Naval" from Bolivia, and start the procedure of adhesion to become as an Associate Member of SWAtHC. That Service should address this to its national authorities.
- c) Argentina and Brazil have elaborated a Contingency Plan for NAVAREA V and VI. Also, they are updating it depending on the development of the new S-124 standard.
- d) SWAtHC member's NtM are written in accordance with the IMO/IHO/WMO Manual on Maritime Safety Information (MSI).
- e) Regarding IRCC action 2, Brazil is an active participant of the NCWG and supports the decision 28 of the IHO Assembly about the implementation of the document "The Future of the Paper Nautical Chart". Uruguay proposes not to stop nautical cartography production in paper format for the moment, as there are sectors of the maritime community that do not have the appropriate ENC displays to navigate exclusively with electronic nautical charts. Their Cartography Division is also analyzing the document to present their conclusions in the 15th SWAtHC. Finally, there

IRCC13-06.1N

are many non-SOLAS users and outside the nautical activity in Argentina that still use paper nautical charts, for which the discontinuation of their production has not yet been evaluated. The possibility of simplifying its production methods in the future, from products derived from S-101 is an alternative that will be welcomed to reduce the workload of the SHN.

9. Actions required of the IRCC

- a) IRCC is invited to note the report of the SWAtHC.