

NATIONAL REPORTS OF COLOMBIA HYDROGRAPHIC COMMISSION ON ANTARCTICA (HCA)

- References:
1. IHO CL 25a/2006 dated 27 February 2006 (Annex B)
 2. IHO Administrative Resolution T1.3 (Para. 8)

Executive summary

1. Hydrographic Office / Service:

- a) *Dirección General Marítima – DIMAR.*
Vice Admiral Mario Germán Rodríguez Viera

Centro de Investigaciones Oceanográficas e Hidrográficas del Caribe – CIOH
Captain Herman León Rincón

- b) *Description:*

The Hydrographic Office of Colombia maintains its commitment with maintaining the maritime safety, with guaranteeing proper conditions for the seafarers, and protecting the environment through hydrographic surveys in the Antarctic, as a result from the Antarctic Expeditions.

From 2016, Colombia is a member State of the Hydrographic Commission on Antarctic (HCA), and the country is working to consolidate its capabilities in the acquisition, processing, editing and dissemination of hydrographic information of Antarctica, with the aim of contributing in the solving of some worldwide concerns.

- c) *Submitted by:*

Commander GUSTAVO GUTIERREZ LEONES ggutierrez@dimar.mil.co
Head of Hydrography Department CIOH (National Hydrographic Office)

2. Surveys:

Coverage of new surveys.

4th Antarctic Expedition of Colombia 2017 - 2018

Munita Island and Cap Reclus Peninsula

243 Linear Nautical Miles of survey

Single beam Survey

Contribution to INT 9166 (UKHO)

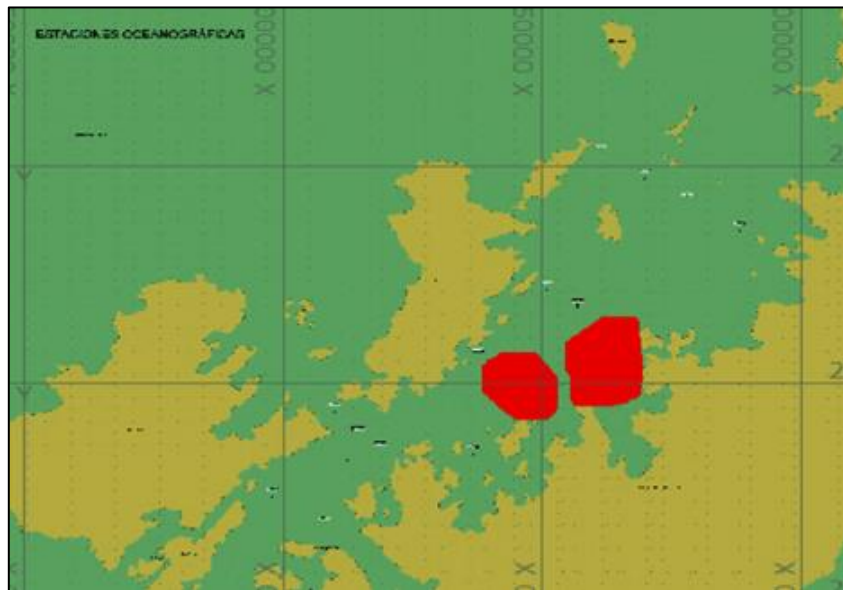
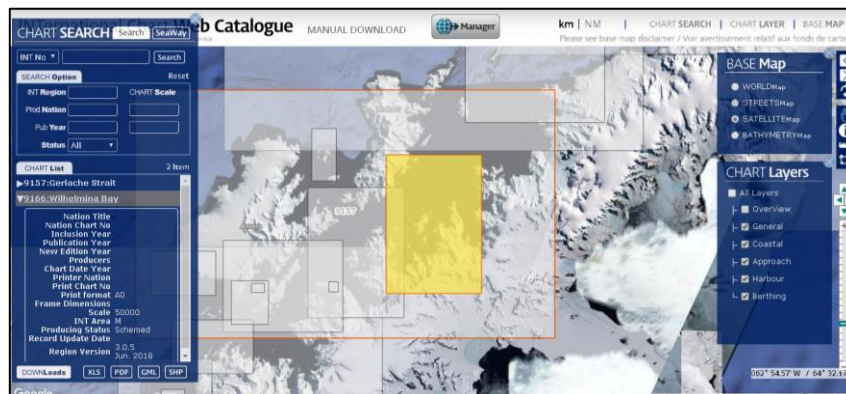


Figure 1. Hydrographic survey coverage area IV Colombian Antarctic Expedition.



“Consolidemos nuestro país marítimo”

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Figure 2. Geographical area INT9166 (UKHO).

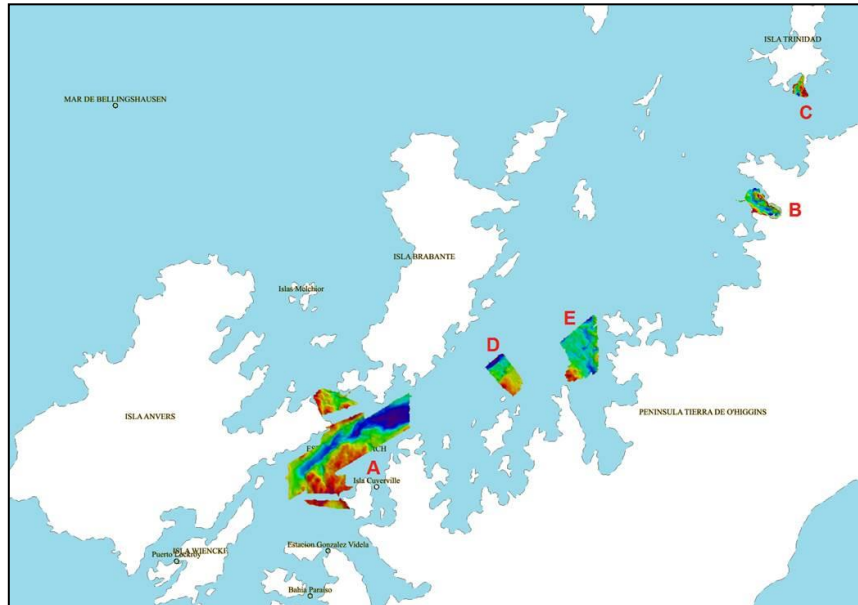


Figure 3. Surveys areas covered by Colombia

- A. *Gerlache Strait – 2015*
- B. *Cierva Cove bay – 2017*
- C. *Trinidad Island – Puerto Mikkelsen – 2017*
- D. *Munita Island - 2018*
- E. *Cap Reclus peninsula – 2018*

New technologies and /or equipment

The Naval Academy for officers has used a full mission navigational simulator. Such system has designed different scenarios for Antarctica using the information collected in Colombia's Antarctic Expeditions. Nowadays, the equipment is used to train future crew members for the challenges of operating in polar environment.



Figure 4. Full mission navigation simulator in the Naval Academy for officers in Colombia

New ships

The hydrographic multipurpose ship ARC “Caribe” arrived the past 14th June 2018 to Cartagena de Indias to strengthen the hydrographic capability of Colombia. With this platform the country has four hydrographic ships for contributing the national cartography scheme, the marine scientific research and the environment protection, in the jurisdictional waters and in the white continent.



Figure 5. New hydrographic multipurpose ship ARC “Caribe”

Problems encountered

The time for the hydrographic surveys is not enough considering all activities of the Antarctic expedition of Colombia. The HO is working in techniques and technologies for optimize the time surveys. Some alternatives are in example SUV.

3. New charts & updates: ENC's

Colombia does not have charts assigned. The last hydrographic of CO is a contribution for the INT9166. This chart is under responsibility of UKHO.

4 New publications & updates: New Publications

a) New Publications



Dimar published the expeditionary records called “Colombia Antartica: a challenge for the country”. It is made up of five chapters, describing the historical review of Expeditions I, II and III, the institutions and research groups that took part in those Expeditions, and the hydrographic surveys, which represent a very valuable aspect of the issue.

b) Updated publications



Magazine "Country of seas" of the General Maritime Directorate with chapter about "Hydrography, sovereignty and development through science", "Exploring new capabilities on board oceanographic vessels in Colombia"

c) Means of delivery, e.g. paper, digital

The areas covered and bathymetric data collected by Colombia in all expeditions to the Antarctic are available online in the next link: <http://arcg.is/154TjP>

d) Problems encountered

Not one.

5. MSI

N/A

6. S-55

N/A

7. Capacity Building

a) Training received, needed, offered

Workshop 31 July – 4 august

The course “...”, was a requisite for everyone involved in any of the Colombian Antarctic Expeditions in order to guarantee the compliance with all the Antarctic Treaty System regulations.

Colombia has two cooperation agreements with Chile and the UK designed to enhance the capabilities of cartography generation in Antarctica, and the collection of data for the edition of INT Charts.

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

Colombia in the framework of two Cooperation Agreements, one with Chile and other one with UK has been able contribute to the cartography generation in the Antarctic, collecting data for the edition of INT Charts under edition responsibility of those States.

In the last Antarctic Treaty Consultative Meeting, Colombia and Uruguay signed a MoU to conduct joint activities in the Antarctic. Additionally, through this MoU Uruguay offered to Colombia the possibility of building a module in its facilities to optimize the results of research projects, including the hydrography surveys in the area around Artigas Base (Uruguay).

8. Conclusions

a) Areas of significant achievement

Colombia continue working to incorporation of the ARC multipurpose ARC “Caribe” to hydrographic surveys and logistic support in the Antarctica.

b) Areas of particular concern

Colombia will do the “V Expedition” in Antarctic during the Austral Summer 2018-2019, We hope to surveys areas near to Gerlache strait or other of high importance for HCA.

c) Any other matters of interest to the RHC

The Oceanographic and Hydrographic Research Center, acting as the National Hydrographic Office, under the leadership of the Maritime General Directorate and in conjunction with the Oceanographic and Hydrographic Research Center of the Pacific will continue to increase the Hydrography capability nationally in order to seek to meet the objectives of the International Hydrographic Organization, the International Maritime Organization and all other organizations that seek to promote the sustainable maritime development; providing safety to navigation, safety of life at the sea and protecting the marine environment.

Captain HERMÁN AICARDO LEÓN RINCÓN
*Director Centre Hydrographic and Hydrographic Research of Caribbean
National Hydrographic Service*