

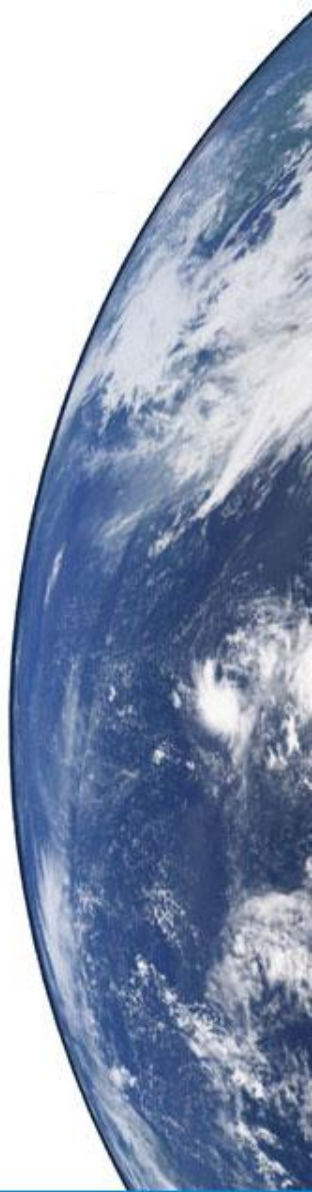


GRA Background Report

OCEATLAN

CDR Alvaro Scardilli

*GOOS Regional Forum-11,
8-9 April 2024 Barcelona, Spain*



UNESCO
UNITED NATIONS
EDUCATIONAL
SCIENTIFIC
AND
CULTURAL
ORGANIZATION



IOC



WMO



UNEP



ICSU



**Regional Alliance in
Oceanography for the
Upper Southwestern
and Tropical Atlantic
Ocean (Argentina –
Brazil – Uruguay)**



Success Stories - Uruguay

On-going Projects

Production, Respiration and Metabolic Balance in a Uruguayan Atlantic Coastal System.

Oceanographic Monitoring System on the Uruguayan Atlantic Coast.

Large-Scale Connectivity Patterns in Clams from Sandy Beaches of the Atlantic Coast of South America.

Forecast System for the Río de la Plata and Uruguayan Coast.

Currents and Waves: Statistics Obtained Using ADCP Equipment on the Coast of Uruguay.

REMARCO Project: Marine – Coastal Stressors Research Network in Latin America and the Caribbean.

Progress of the Implementation of Marine Spatial Planning in Uruguay.

Uruguay's progress in identifying marine conservation priorities and creation of marine protected areas

Coastal upwellings in Uruguay

Success Stories - Brazil

On-going Projects

Brazilian Oceanographic Projects in the Context of the BRICS.

Evolution of Physical and Biological Patterns Along the Western Tropical Boundary and the South Atlantic: A Satellite Perspective.

Multi-Scale Study of Ocean-Atmosphere Interactions in the South Atlantic Ocean.

Ocean-Atmosphere Interaction Processes in the Southwest Atlantic: Observations and Numerical Modeling.

Progress of the Implementation of Marine Spatial Planning (PEM) in Brazil SECIRM.

NETUNO Environmental Database

Success Stories - Argentina

On-going Projects

Measuring Water Height Using Cell Phones.

Tide predictions for the Buenos Aires province maritime coast and its continental shelf.

Update of the numerical model of storm waves for the area of the Río de la Plata and the Southwestern Atlantic Ocean Platform.

Numerical model of total height of water in the Rio de la Plata and continental shelf.

Activities related to Ocean Teacher Global Academy (OTGA).

Success Stories – Observations Programs

SOHMA has a tidal network with two permanent monitoring stations (Punta Lobos and La Paloma).

<https://meteo.armada.mil.uy/Est4Armada.php>



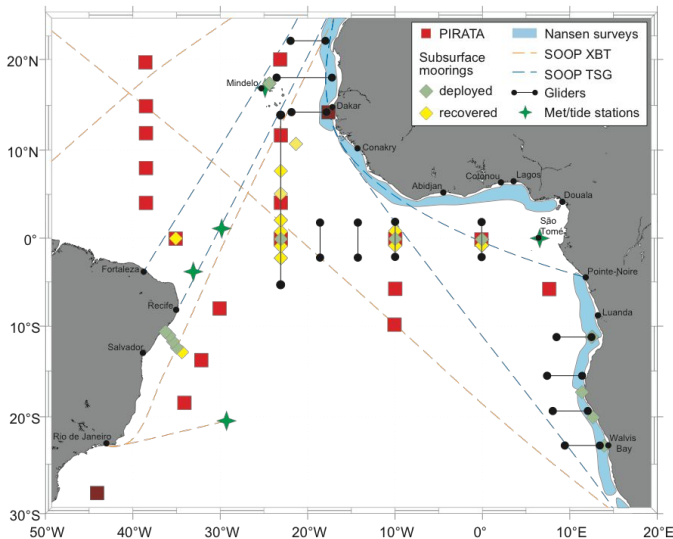
ROMA | RED DE OBSERVACIÓN MARINA - ARGENTINA

La Red de Observación Marina Argentina (ROMA) tiene como objetivo el estudio y monitoreo del área litoral costero-marina, desde el Estuario del Río de la Plata hasta la Antártida. Está integrada por una red de nodos asociados a instituciones distribuidas a lo largo de todo el litoral marítimo bicontinental.



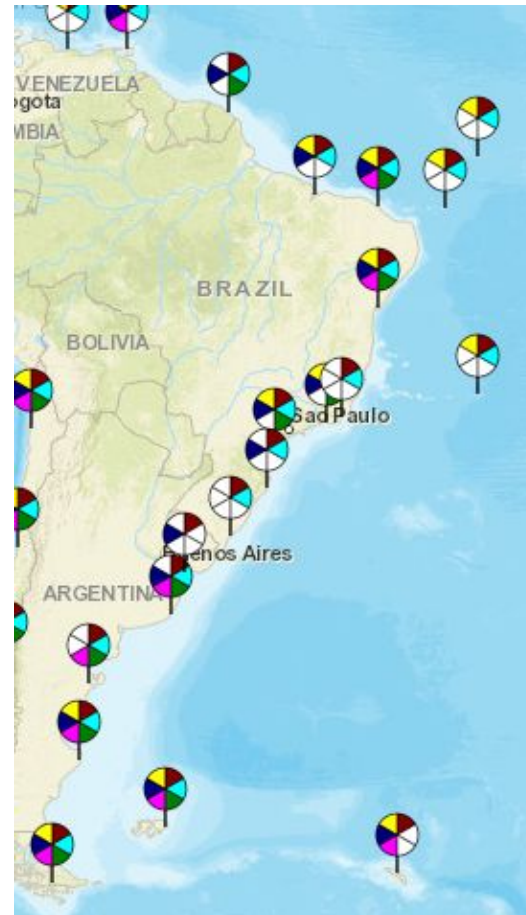
Success Stories – Observations Programs

+ **PIRATA - On-going**



Prediction and Research Moored Array in the Tropical Atlantic (PIRATA) is an in-situ observation network composed of buried buoys designed to monitor a series of variables in the ocean-atmosphere interaction processes in the Tropical Atlantic Ocean.

+ **GLOSS - On-going**



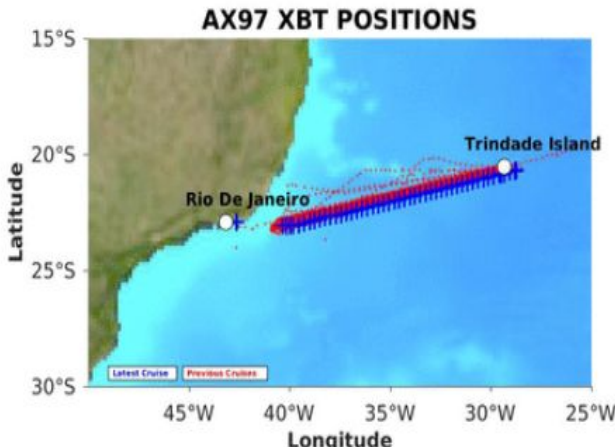
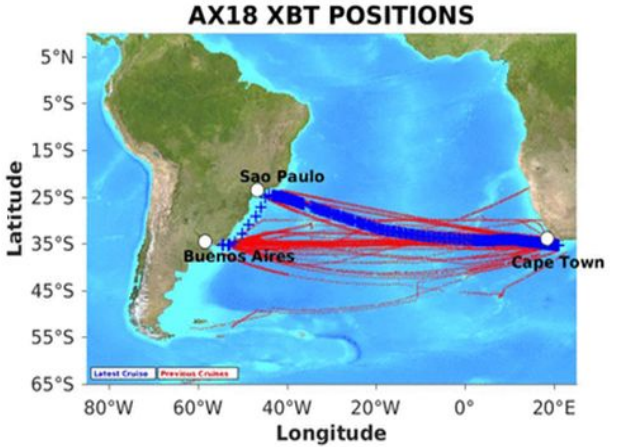
Argentina: 4 stations (Ushuaia, Puerto Deseado, Puerto Madryn and Mar del Plata). Available online.

Brazil: The network has 14 stations, with 10 of them available online.

Uruguay: has one station, available online.

Success Stories – Observations Programs

+ XBT's – Interrupted



+ PNBOIA - On-going

The National Buoy Program (PNBOIA) has as general objective to provide meteorological and oceanographic data, obtained in the oceanic areas of interest of Brazil.



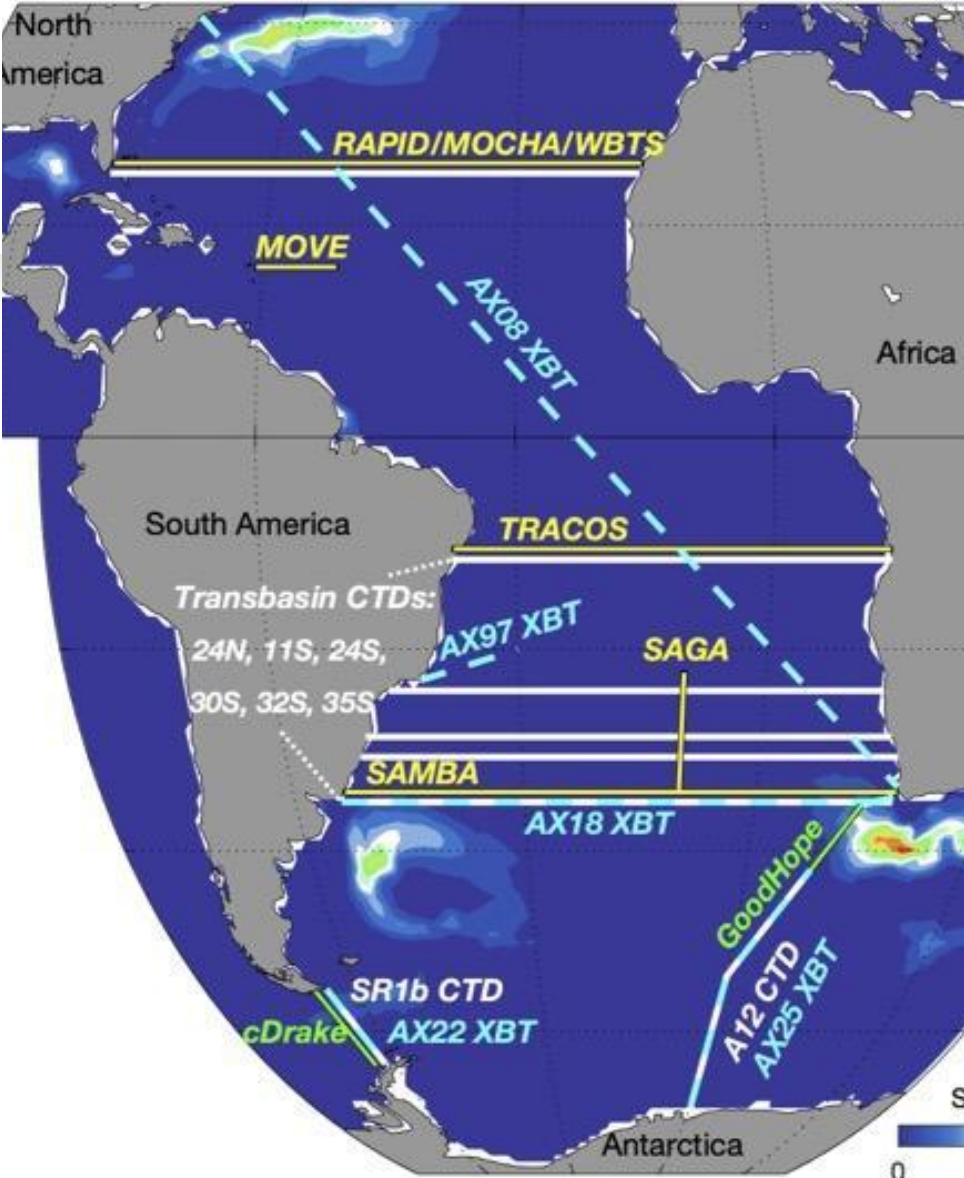
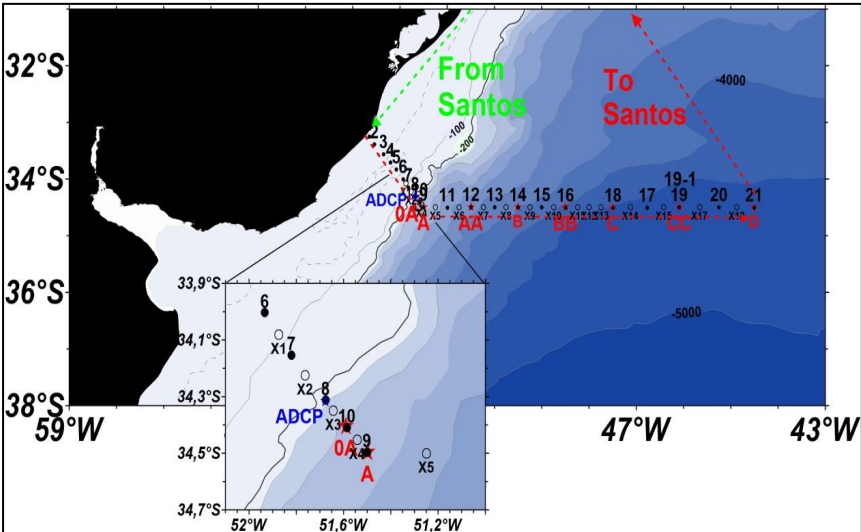
Success Stories – Observations Programs

+ SAMOC – On-going

- The South Atlantic Meridional Overturning Circulation (SAMOC) program is an effort carried out by an international group of researchers to study the role of the South Atlantic in the Meridional Overturning Circulation (MOC).

- The SAMBAR project aims to better understand the interannual variability of the heat content and meridional transports across 34.5°S, a zonal section referred as SAMBA (the South Atlantic Meridional Overturning Circulation Basin-wide Array)

- Since 2009, 20 campaigns have been carried out with Brazilian and Argentine vessels.



Priorities

- Short to medium term (for the next 5 years)
- ✓ Acquisition of a new tidegauge station for the port of Punta del Este in order to shorten distances in tidal monitoring between La Paloma and Montevideo.
- ✓ Oceanographic Data Center. SOHMA continues the development of the CENDO Division within the Department of Oceanography. The objective of the National Oceanographic Data Center is to have a scientific oceanographic database.
- ✓ A new vessel for Hydro-Oceanographic studies was presented: ARA Petrel, length: 30 m, beam: 9.6, draft: 2.1 m, displacement: 205 tons.
- ✓ Improvements in numerical models: resolution, processing time, capabilities, forecasted variables, impacts in coastal population, etc.
- ✓ Consolidate new ARGO project.
- ✓ Marine meteorology working group. Tropical and extra-tropical cyclones.

What support do you need from GOOS?

- Assistance in numerical modeling of storm surge and waves for updating own systems.
- Assistance for consolidation of Oceanographic Data Centers in the region.
- Capacity development.
- Access to technology at reasonable cost.