An Overview of Ocean Observations in Brazil

We cannot manage what we do not measure

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Ocean Observations in Brazil

GOOS System

Independent System

Universities, but not always research

GOOS Brasil

FURG

IO

Instituto Oceanográfico

COPPE

UFRJ

UNIVERSIDADE DE SÃO PAULO

UFPR

UNIVERSIDADE FEDERAL DO PARANÁ
PIRATA

The Predictive Research Moored Array in the Tropical Atlantic (PIRATA) is an in situ observation array of moored buoys designed to monitor a set of atmospheric and oceanographic variables of the ocean-atmosphere interface processes at the tropical Atlantic ocean. The PIRATA project is a multinational cooperation program with participation of Brazil, France, and the United States.
**PNBOIA**

The National Buoy Program is the Brazilian program to implement an array of drifters and coastal moorings, both monitored by satellite, and to make the data available to the scientific community in near real time.
Brazil's coastline extends more than 8,000 km long. Therefore, to monitor and understand the variations of sea level becomes a crucial step to protect the lives and properties located near the coastal regions.
The Antares network served as a seed for "Chlorophyll Global Integrated Network (ChloroGIN)" a GOOS Pilot Project. Antares forms its Latin American Regional branch.
MOVAR: Monitoring the Upper Ocean Thermal Variability between Rio de Janeiro and Trindade Island

LINHA DE REPETIÇÃO AX97

- Agosto/2004 - presente
- 44 cruzeiros
- ~1680 XBTs lançados
Further Information:

GOOS-BRASIL

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Agenda
The Brazilian contribution to SAMOC includes observation on the western end of the SAMBA Array and numerical experiments with a global, 1/12-degree implementation of HYCOM, forced with reanalysis products.
SiMCosta
Brazilian Coastal Monitoring System

• **Initial Phase:**
  south-southeast - states of RS, SC, PR and SP

• **In Medium Term:**
  entire coastal region along the Brazilian territory

www.simcosta.furg.br
Projeto Azul
COPPE-UFRJ

Período de Análise: 30/07/2014 a 07/08/2014

Trajetória

O glider percorreu aproximadamente 105 km.
REde de Monitoramento MARinho do Estado de São Paulo (REMMMAR-SP) - IOUSP
Implementing a Brazilian Node of the Ocean Tracking Network - OTN-Brazil

OTN Brazil

Prospective Partners – Work Underway
Prospective Partners – Planned
PIRATA Buoys
ATLAS-B Buoy
Long Term Ecological Research Program (LTER)
Patos Lagoon and Adjacent Coastal Region – Site 8
http://www.peld.furg.br/
15 years of data collection

El Niño

El Niño

El Niño

El Niño

El Niño

Ocean

Lagoa

Regime de águas salgadas, domínio de espécies marinhas como A. tonsa, T. turbinata, S. piletaus, e larvas de T. lepturus, P. signata.

Regime de águas doces, domínio de espécies limnícicas como N. incompositus, P. richardi, M. micrura e larvas de P. nigrobarbis.

Salinity
Vital de Oliveira – H39
Brazilian Oceanic Research Vessel

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<th>Porto Saída</th>
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<td>Rio Grande - 25JUL</td>
<td>Rio de Janeiro - 29JUL</td>
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Future Perspectives

- Establishment of a National Institute for the Oceans
- Participation at AtlantOS (WP-5)
- Increase in the contribution to Oceanic Observation
- Need to coordinate observing initiatives