

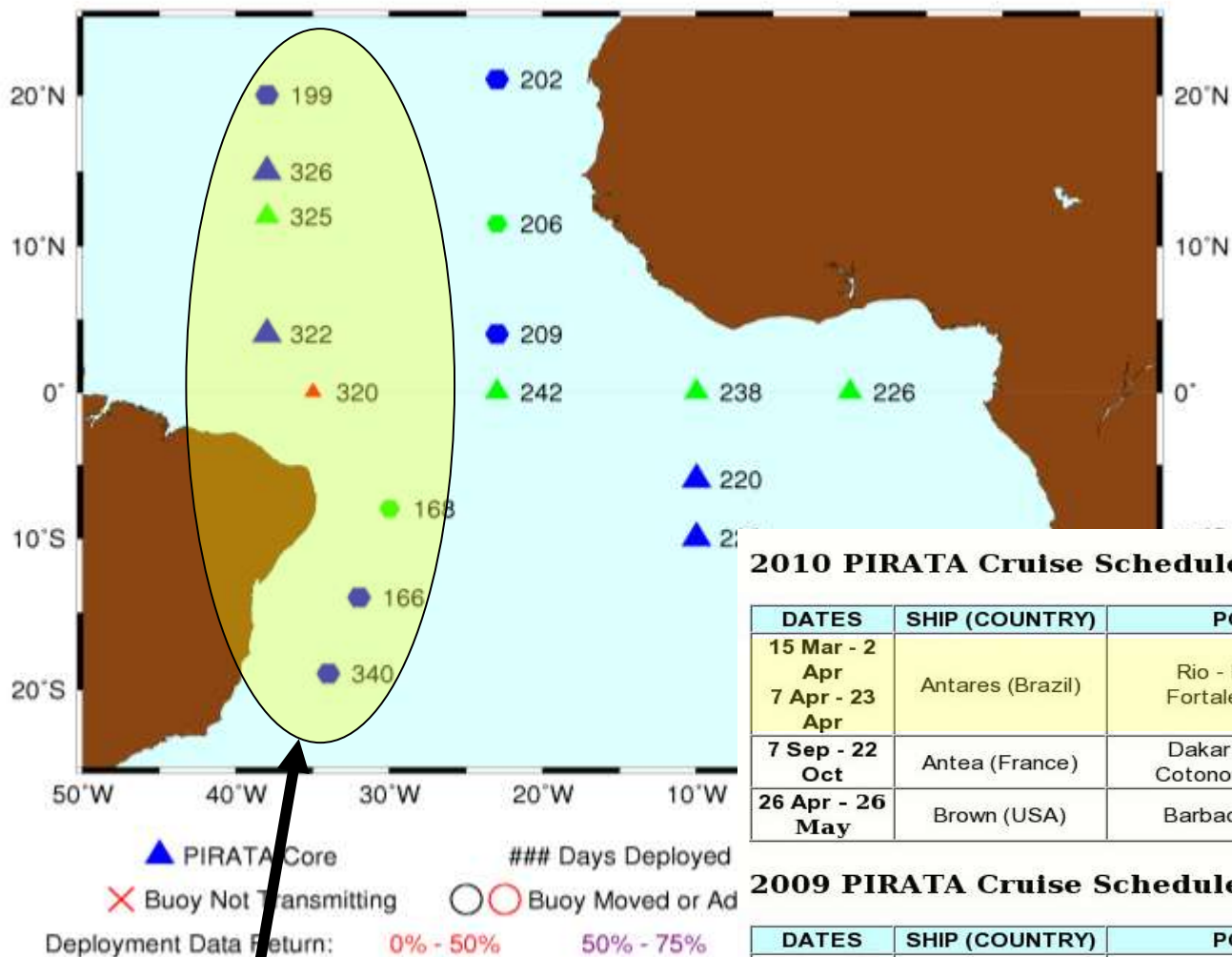
Efforts in Brazil towards a sustained program of ship-based observations

Edmo Campos

University of São Paulo – Brazil

Go-Ship International Planning Meeting
Portland – Oregon, 20/Feb/2010

The PIRATA Array & Cruise Schedule



Noc. ANTARES

2010 PIRATA Cruise Schedule

DATES	SHIP (COUNTRY)	PORTS	SITES	R/D/S
15 Mar - 2 Apr	Antares (Brazil)	Rio - Fortaleza	19S 34W 14S 32W, 8S 30W 035W; 38W,	8/8/0
7 Apr - 23 Apr		Fortaleza - Natal		
7 Sep - 22 Oct	Antea (France)	Dakar - Cotonou Cotonou - Cotonou	10W, 0-0, 0-23W	5/5/0
26 Apr - 26 May	Brown (USA)	Barbados - Miami	NE Ext	4/4/0

2009 PIRATA Cruise Schedule

DATES	SHIP (COUNTRY)	PORTS	SITES	R/D/S
9 Mar - 17 Mar	Antares (Brazil)	Rio - Fortaleza	19S 34W; 15N, 12N 8N 38W, 4N38W,035W	6/6/0
20 Mar - 04 Apr		Fortaleza - Natal		
14 Jun - 29 Jun	Antea (France)	Dakar - Cotonou Cotonou - Cotonou	10W, 0-0, 0-23W	5/5/0
2 Jul - 24 Jul	Brown (USA)	Barbados - Miami	NE Ext	4/4/0
11 Jul - 11 Aug				
29 Aug - 5 Sep	Antares	Brazil	14 S 32W, 8S 30W	2/2/0

The "Brazilian" buoys

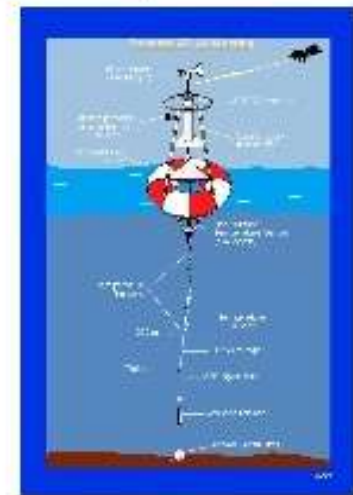
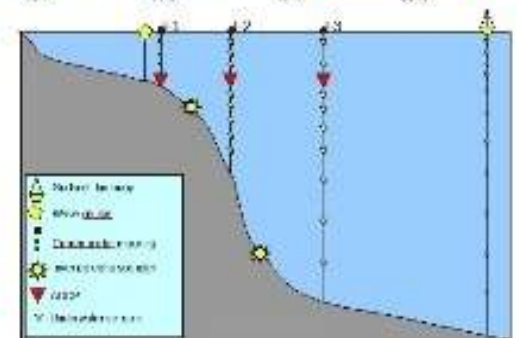
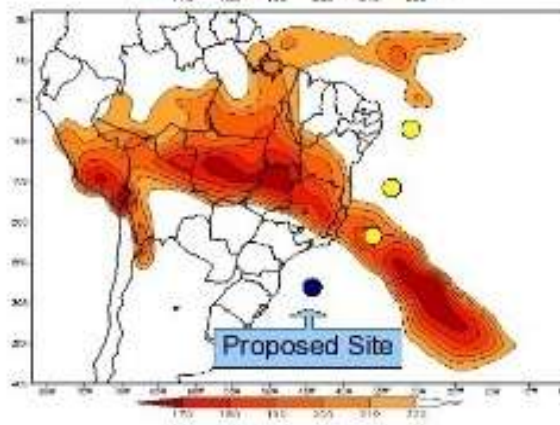
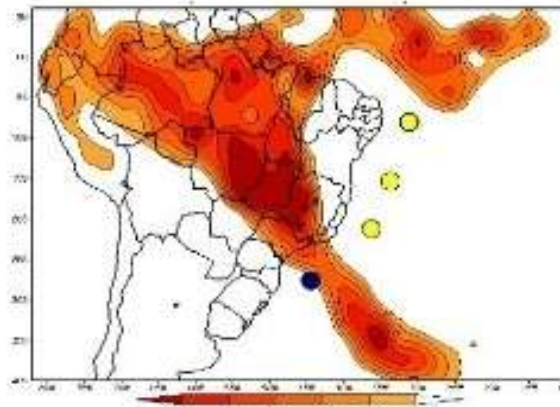
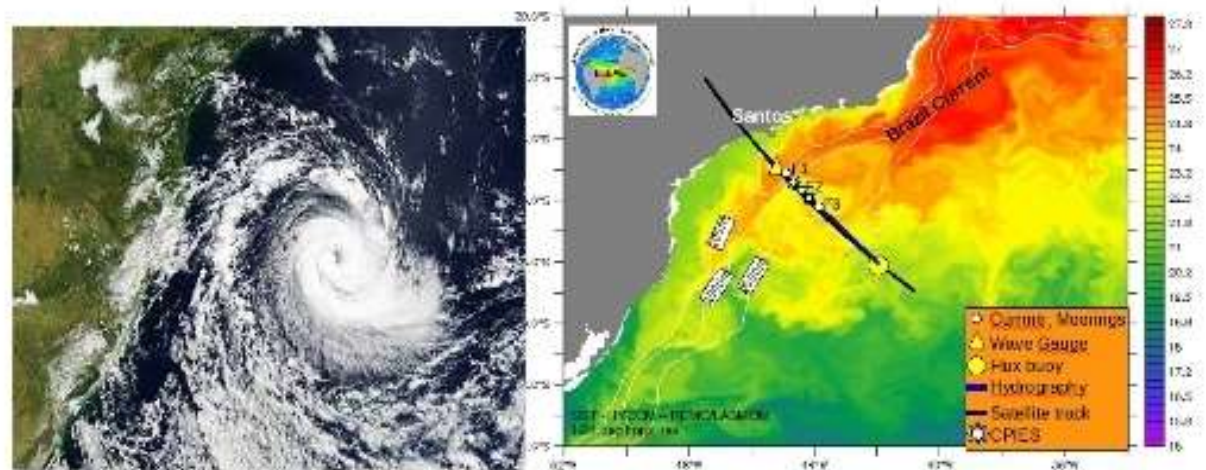
The “Subtropical Extension” of the Pirata Array in the Western South Atlantic

This project, already funded, will construct and deploy a Brazilian Prototype of the Atlas Buoy (ATLAS-B) for monitoring the SACZ and the mixed layer heat content at 28°S, 42°W.

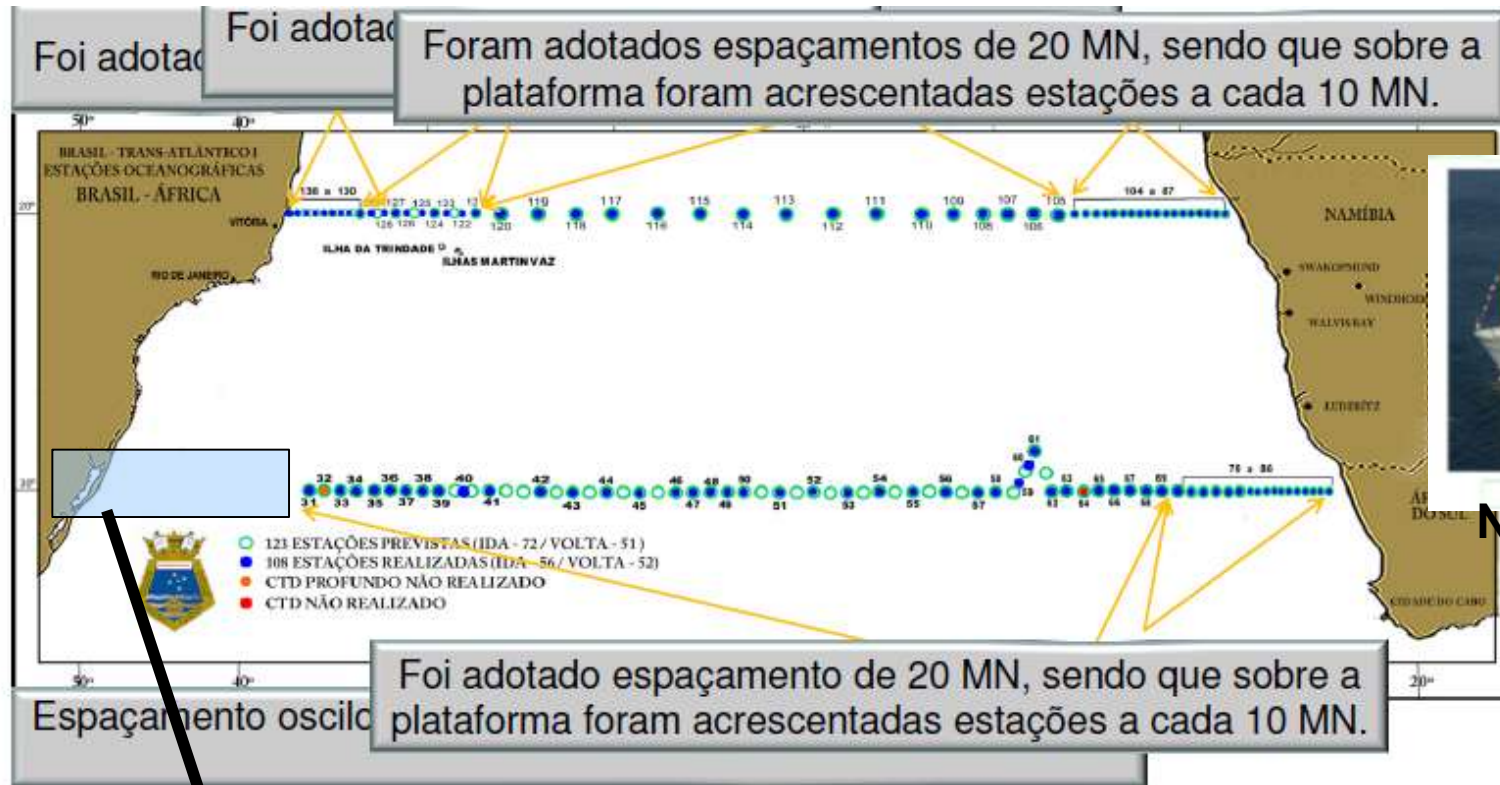
A repeated hydrographic section, together with current-meter mooring, will be carried across the Brazil Current.



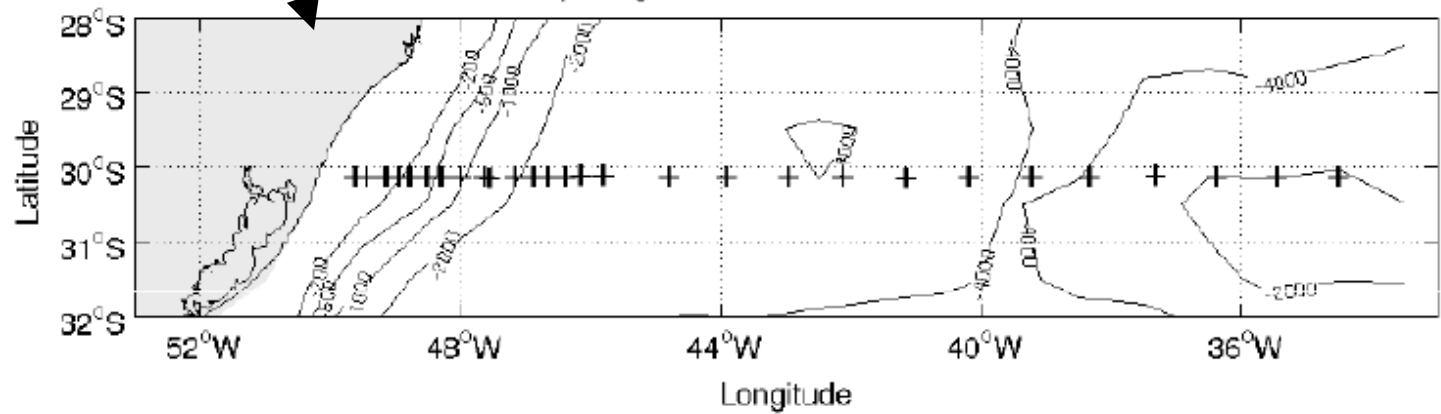
NPq Prof. W. Besnard



The "Antares/Cruzeiro do Sul" Trans-Atlantic Survey Nov-Dec 2009



NOc Cruzeiro do Sul



NOc ANTARES

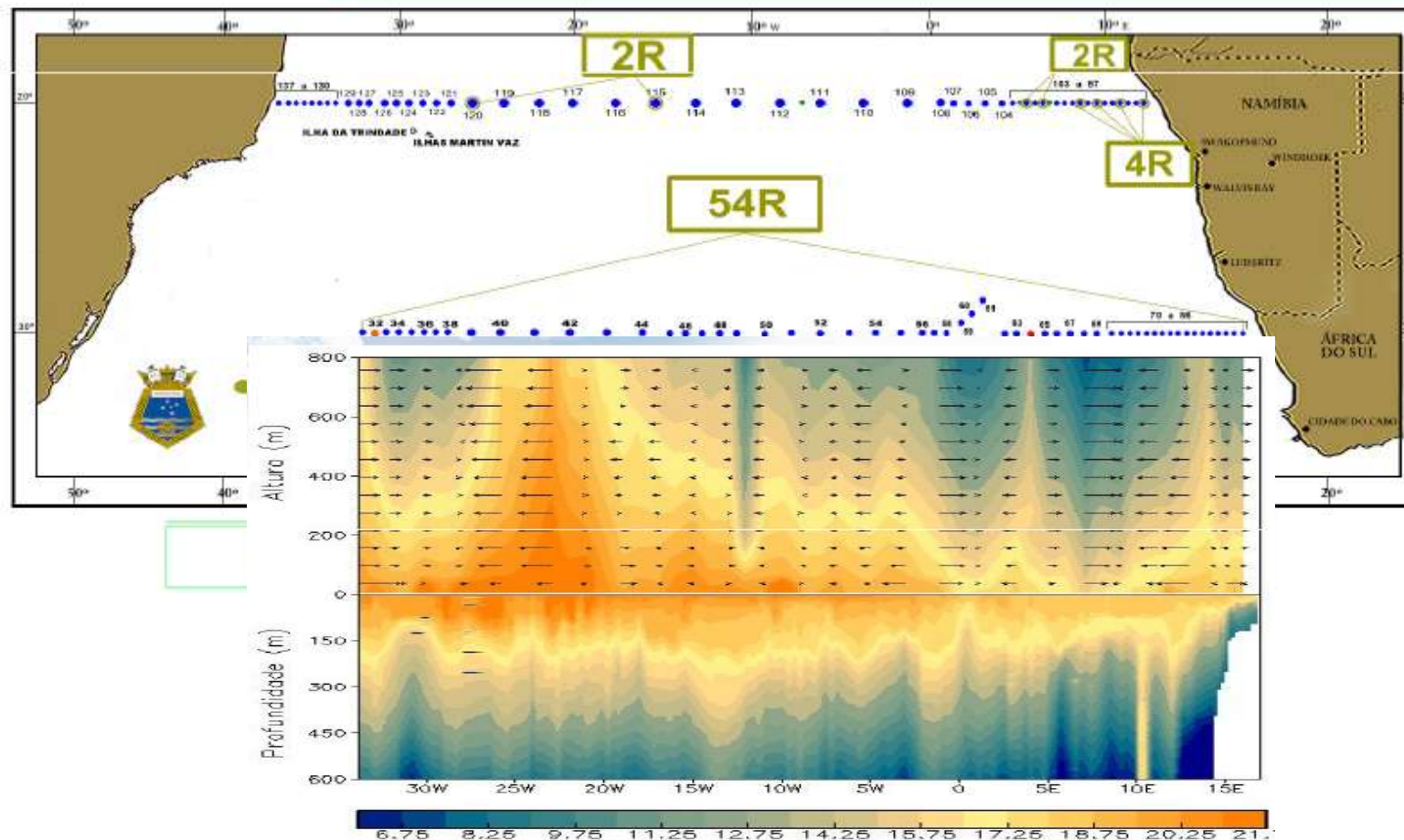
Figura 1. Estações oceanográficas ocupadas durante a realizada de 09 a 20 de Novembro de 2009 pelo NOc Antares da Marinha do Brasil.

The “Antares/Cruzeiro do Sul” Trans-Atlantic Survey Nov-Dec 2009

There is a possibility of repeating the trans-Atlantic section every other year.



- Lançadas 54 radiossondas na pernada BRA-AFR
(60 previstas)
- Lançadas 8 radiossondas na pernada AFR-BRA
(21 previstas)

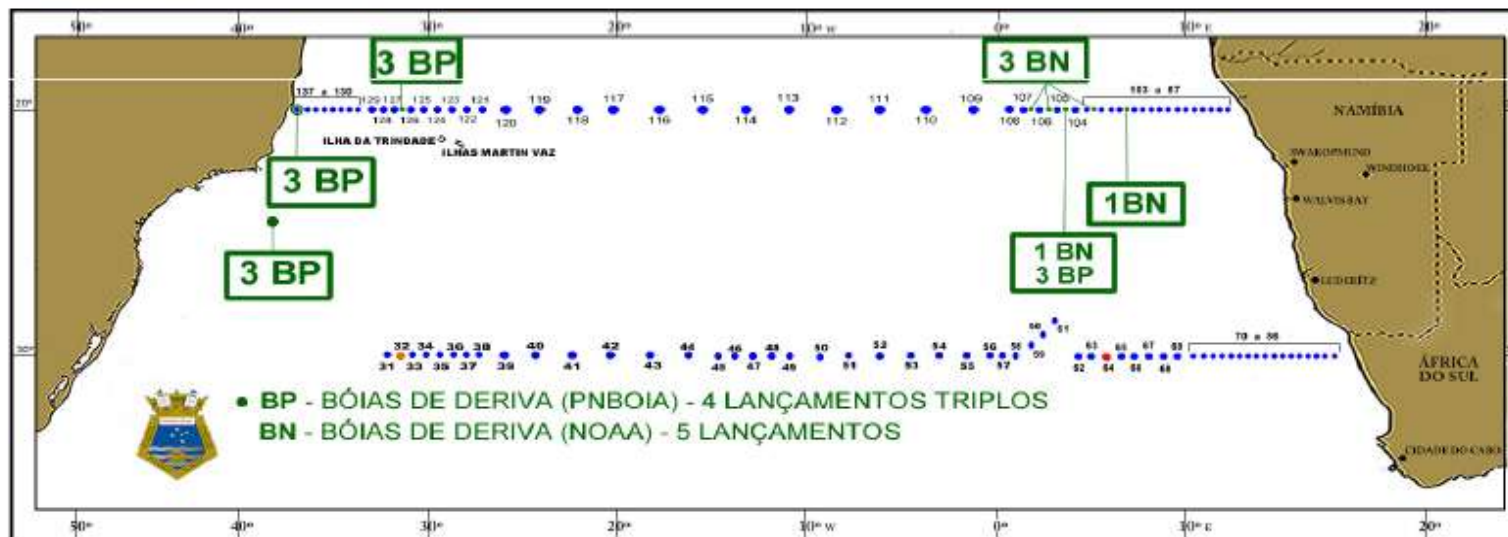


The “Antares/Cruzeiro do Sul” Trans-Atlantic Survey Nov-Dec 2009

NOAA/AOML provided a number of drifting buoys, XBTs and ARGO floats for deployment during the trans-atlantic cruise.



- Lançadas 12 bóias de deriva do PNBOIA
(4 lançamentos com 3 bóias).
- Lançadas 5 bóias de deriva da NOAA.



The “Antares/Cruzeiro do Sul” Trans-Atlantic Survey Nov-Dec 2009

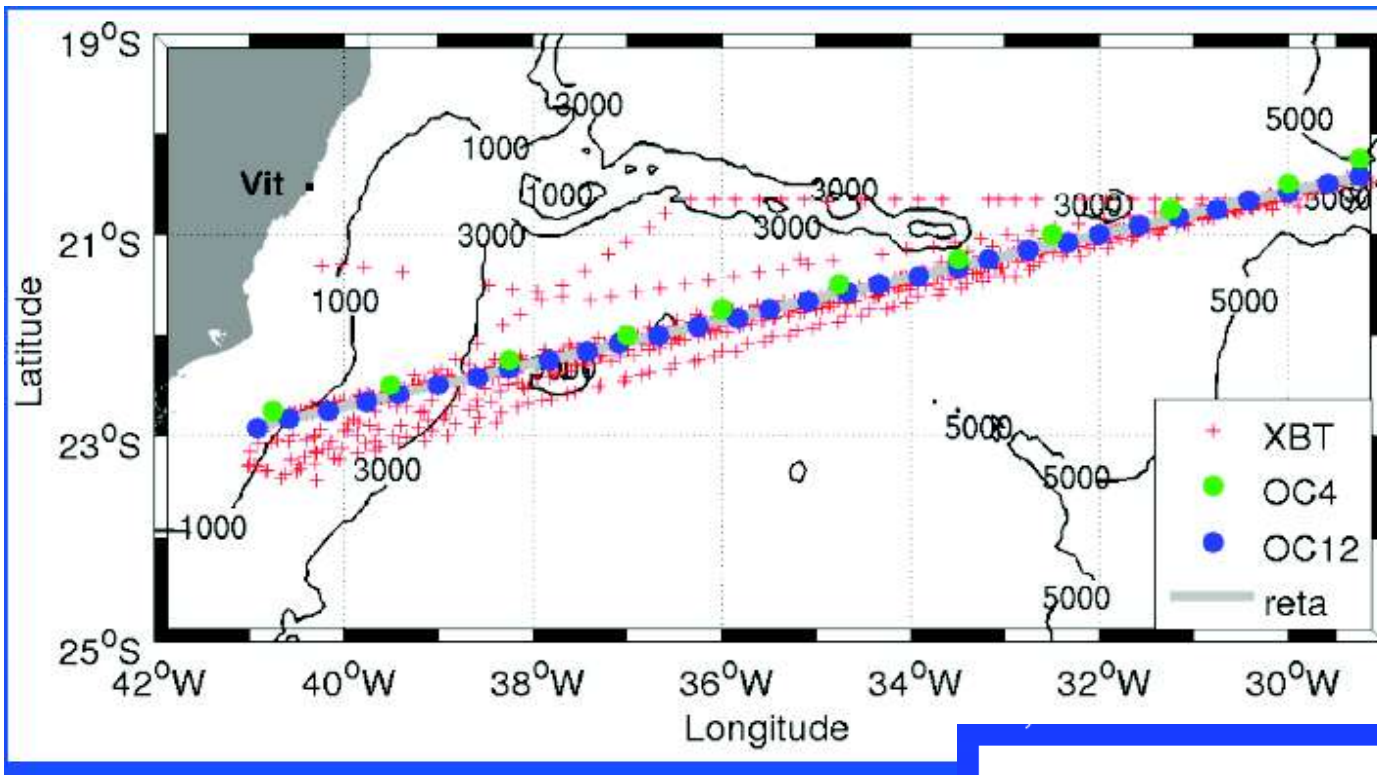
NOAA/AOML is willing to keep a continuous cooperation in the event this activity becomes long term program in Brazil.



■ Lançados 8 flutuadores ARGO da NOAA.

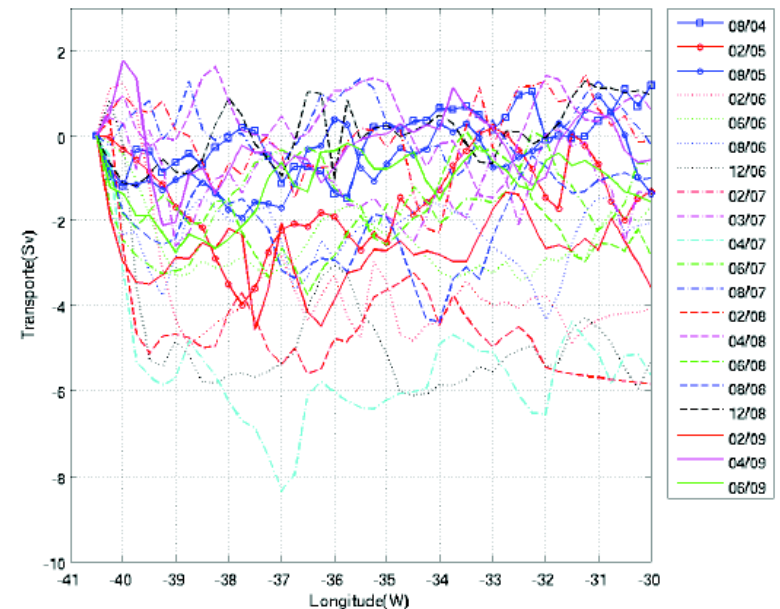


AOML has been collaborating with this program since its beginning.



MOVAR: Multi-year Observations of the Brazil Current Volume Transport Variability near 22°S

(M. Mata - Furg)





Brazilian oceanography in IPY

- Major contribution from the GOAL Group (*High Latitude Oceanography Group*) through the interdisciplinary project: SOS-Climate (EoI #911)
- SOS-Climate is run at FURG with the cooperation of several institutions within Brazil and abroad.
- Contributes to 4 major IPY Clusters.

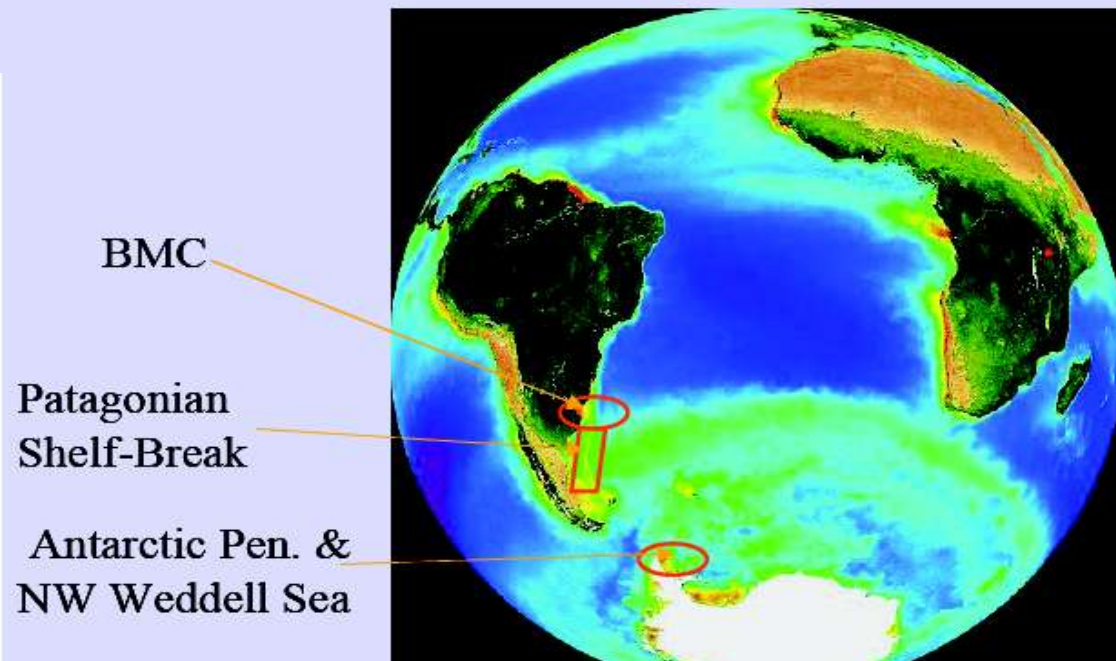


NPo Almirante Maximiano - H41

The Regions of Interest



NApOc Ary Rongel - H44



SAMOC 3

Rio de Janeiro/Niteroi, Brazil, May 11 - 13, 2010

The Third South Atlantic Meridional Overturning Circulation (SAMOC) workshop will take place in Niteroi/Rio, Brazil, on May 11, 12 and 13, 2010. SAMOC 3 plans to get together international experts to design and plan the South Atlantic and inter-ocean exchanges element of an MOC observing system that would help address questions and challenges outlined in the documents and recommendations provided by OceanObs'09. It is expected that the workshop will foster international collaborations and will provide concrete basis for the implementation of the program.

The Agenda will include:

1. Presentations from modelers, theoretician and those that did model products analysis leading towards recommendations on what needs to be observed, where and why.
2. Presentations from those that conducted observational studies in the regions of interest (the South Atlantic and inter ocean exchanges) with focus on what was learned from the observations and what is missing.
3. Based on results from 1 and 2, it is expected to develop recommendations for a plan to observe those parameters needed to measure and understand MOC variability in the South Atlantic and adjacent Southern Ocean sector.

The Workshop is supported by the Brazilian Diretoria de Hidrografia e Navegação (DHN), the NOAA Climate Office Program, and the US Clivar Office.

For more information or if you wish to participate, visit the SAMOC website

<http://www.aoml.noaa.gov/phod/SAMOC/>

or contact the organizers:

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[Venue](#)

[Agenda](#)

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