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PROJECT BLUE: An Operational Oceanography program in the Southeastern Brazil.

Francisco Alves dos Santos (1), Maurício da Rocha Fragoso (1), Leonardo Maturo Marques da Cruz (1), Julio Augusto de Castro Pellegrini (1), Luiz Paulo de Freitas Assad (2), Luiz Landau (2), and Flávia Adissi (3)

(1) PROOCEANO Serviço Oceanográfico, Rio de Janeiro-RJ, Brazil (francisco@prooceano.com.br), (2) LAMCE/COPPE, Universidade Federal do Rio de Janeiro, Rio de Janeiro-RJ, Brazil, (3) BG Brasil, Rio de Janeiro-RJ, Brazil

The beginning of 2013 will mark the start for the Project BLUE, one of the greatest efforts in operational oceanography ever proposed in Brazil.

The region of interest is located in the continental shelf break between Cabo Frio (23ºS) and Florianonópolis Island (28ºS). The region is dominated by the Brazil Current system, formed by the Brazil Current, carrying Tropical Water southward from surface down to 400-500 meters and the Intermediate Counter Current, flowing northward in the interface of the South Atlantic Central Water and the Antarctic Intermediate Water.

In situ data and operational forecasts efforts in this oil rich region are still few and disperse. Nevertheless, the constant increase of offshore operations is followed by the necessity of both a baseline study and a systematic data collection. All project structure is aimed at optimizing real-time data collection and displaying.

Project BLUE is formed by 4 modules: (1) In situ data collection will be performed by 5 gliders, 108 surface drifters and 36 subsurface profiling floats. (2) Remote Sensing module count on a local receiving antenna to provide operational information of Sea Surface Temperature, Height and Ocean Color. (3) Numerical Modelling module aims, initially, to implement a regional grid for long climatological runs, followed by an operational run, with assimilation of the data generated by the first module. One of the great concerns of the Project BLUE is to turn public all collected data, allowing for a greater number of researchers to access the data and, consequently, improving the knowledge on the region. For that purpose, there is an specific module (4) Data displaying focused on easing the access to the data via web services.

It is expected, by the end of the first three years, to have a systematic data collection system, a well adapted assimilation scheme and an operational forecast model for the Santos Basin, providing reliable information for offshore operations and emergency planning.