

IC02-13 ORAL

A STUDY OF THE OCEANIC CIRCULATION AND SST VARIABILITIES IN THE SOUTHWEST ATLANTIC WITH THE MIAMI HYBRID COORDINATE OCEAN MODEL (HYCOM).

E. GIAROLLA (Instituto Nacional de Pesquisas Espaciais (INPE), Av. dos Astronautas, Sao Jose dos Campos, Brazil, emanuel@met.inpe.br); E. J. D. Campos (Instituto Oceanográfico, Universidade de São Paulo, Pca. do Oceanográfico, 191, Cid. Universitária, 05508-900 S. Paulo, Brazil, edmo@usp.br)

The Miami Isopycnic Coordinate Ocean Model (MICOM) was used to study some dynamical aspects of the Brazil-Malvinas Confluence system, with emphasis in SST variabilities, the eddy generation and the variability of the confluence positioning due to internal dynamic mechanisms. The oceanic basin adopted was limited in 20S - 55S and 65W -20W. In this domain there are large areas of Continental Shelf that were not well represented in the simulations, due to limitations of the isopycnic model, which do not resolve properly the vertical structure in shallow areas. The cut-off depths adopted was 100 m, and some coastal currents systems were not resolved. At present, the Miami modeling group is developing an hybrid-coordinate model, that can work as an isopycnic model or as a sigma coordinate model. The main advantage of this model appears to be the ability of work in coastal and deep areas as a whole, with good results in both cases. We are applying this hybrid-coordinate model (HYCOM) to the same South Atlantic domain to compare the results with MICOM previous results and point out the main differences, vantages and limitations of this model in representing the Brazil-Malvinas Confluence system.