

Brazil

Although a lot of progress has been made elsewhere, for instance in China and India, in the direction of contributing to GEOTRACES, the same does not apply to Brazil. Last year the National Research Council opened a call for large oceanographic projects with the goal to create National Institutes and promote integration. Twelve projects were submitted and to this date there is no result on the groups, which will be financed although the deadline to report results was due in December 2010. All proposing groups had to aggregate at least one institution housing an oceanographic ship so many groups requested funds to modernize their ships. I know three of the 12 groups: one is centered in Rio de Janeiro and was nucleated by the Navy Research Institute (they have a new ship) and includes PUC and other universities; one was nucleated by the University of São Paulo and the third group grew around FURG, the university where Felipe Niencheski is affiliated to. Any substantial change in our capability to perform oceanographic cruises at the quality level required by GEOTRACES will only occur within the next two or three years.

The actions of Petrobras has generated oceanographic data of quality but their goals are not coincidental with those of GEOTRACES. Ships and sampling is performed by hired companies and a good quality control is made. As for organics, stable isotopes, black carbon and metals in sediments I can ensure that we have for the Campos Basin a very good collection of data covering in detail a large area (isobaths 50 to 3000m). Metals were also determined in surface waters (Al, As, Ba, B, Cd, Cu, Cr, Mn, Hg, Ni, V, Zn) but detection limits were not appropriate for iron and could be better for zinc. Nutrients, pigments and other oceanographic properties were also obtained for several depths in the water column. A second large project will be implemented in the Santos Basin but I do not yet have information on the detailed program.

Angela Wagener made a presentation last March in Monaco (the IAEA Symposium) showing results on lipids and stable isotopes in sediments for the Campos Basin and the audience was really amazed with the large number of stations as well as with the data quality and the value of information. A short manuscript was submitted for publication in the proceedings since the goal is to publish in a journal reaching a wider audience.

Figures illustrating the spatial distribution of concentrations (organics and metals) can certainly be provided but permission must be obtained from Petrobras and this cannot be made so fast as to be available by June 15. It can possibly be available by the end of June.

The most recent contribution of Brazil to GEOTRACES was the active participation of Jose Marcus Godoy last March in the cruise organized by Hein de Baar in the South Atlantic. It is hoped that other opportunities will come for Brazilians to participate of such cruises and learn more about the GEOTRACES methods as well as to contribute in data acquisition.