

## **Southern Ocean Regional Data Centre Report**

### **Argo Data Management Meeting 2004**

The Southern Ocean Regional Data Centre (SORDAC) is currently a collaborative effort between BODC and CSIRO. Present responsibilities for the Southern Ocean sectors are as follows and are also shown in Figure 1:

Atlantic Ocean sector:	BODC 70°W – 90°E
Indian Ocean sector:	CSIRO 90°E – 180°E, to 60S; BODC remainder
Pacific Ocean sector:	Not yet determined

The SORDAC will operate south of 35°S therefore incorporating a 5° overlap with all other RDACs at the northern boundary (assuming that they extend to 40°S). BODC and CSIRO have agreed to carry out RDAC activities as defined by the Argo Data Management Team (ADMT), collaborating in several areas such as:

#### **1) Developing a standard climatology**

The World Ocean Database 2001 (WOD2001) will be used as the basis of the climatology. Initial work will involve “cleaning up” this dataset by removing duplicates and near duplicates, assessing the quality of all bottle data as early indications show that some of this data is of suspect quality, assessing the quality of all CTD data as some data maybe of poor quality, and visually examining all data considered good for the removal of any spikes that have not been flagged.

CSIRO and BODC will each concentrate on their own regions to carry out this work, combining their results to produce an improved historical dataset. The Pacific sector data will have little or no work performed on it resulting in the final product being very similar to the WOD2001 in this sector.

Other data will be added to this dataset. An incomplete list of additional data sources includes:

- BODC holdings
- CSIRO holdings
- Alex Orsi (Department of Oceanography, Texas A+M University)
- CLIVAR
- Contact other relevant agencies
- CTDs from deployment cruises
- Incorporating good float data?

To ensure standard format, dataset integrity, version control and reducing the risk of multiple copies of the historical dataset BODC will act as custodians. The partners will deliver data to BODC (with any supporting documentation) in the agreed format. BODC will apply the changes to the historical dataset. They will not perform checks on the quality of the data supplied, only checking against the existing historical dataset for

duplicates and ensuring appliance with the agreed format. BODC will make all versions available on the web along with all documentation.

## **2) Evaluating Argo data**

Each partner will evaluate all Argo data within their region of responsibility using methods agreed by the ADMT and Argo Steering Team (AST). The float data will be obtained from the GDACs. All methods requiring comparison against a historical dataset will use the historical dataset compiled and made available by the SORDAC.

If either partner recommends changes to any Argo data they will alert the PIs to problems *via* the national DAC for that float. The PI will have the final say on any corrections to be applied and the national DAC will be asked by the RDAC to reissue the corrected data to the GDACs.

## **3) Developing tools and shared software**

BODC and CSIRO will:

- Jointly evaluate relevant software used by the Argo community for suitability in the Southern Ocean.
- Jointly develop new tools and methods for evaluating Argo data in the Southern Ocean.
- Exchange working scripts/software.

## **4) Joint website for Southern Ocean**

BODC will host the main website for the SORDAC providing:

- information on the Argo project
- information on the role of the RDAC
- documentation of the regional centre procedures
- download facility of the historical dataset developed jointly by the partners
- the current network status of Argo floats
- display and link to Argo related products
- link to CSIRO pages that display the work carried out by them

Efforts will be made to ensure that duplication does not occur as well as to make navigation between the two partner's websites as smooth and seamless as possible.

BODC and CSIRO have agreed that initial efforts should be directed at improving the historical dataset for the region as this is vital for the national DACs with floats in the region. BODC have already developed a website which will be going live by November 2004 and will continue to improve this as the RDAC activities become more intense. BODC and CSIRO have also agreed in principle to an exchange program. Rick Smith from CSIRO has visited BODC during September 2004 and it is hoped that this will be reciprocated by someone from BODC in 2005. It is felt that such an exchange will ensure that exchange of information and ideas between institutes will be enhanced and that duplication of effort does not occur.

**Figure 1.** Institute responsibility of RDAC activities (Modified from the ADM 2003 meeting minutes).

