

The Status of Argo in China

1. Floats deployed in FY 2002

Funded by the Ministry of Science and Technology (MST), in FY 2002, China Argo project has deployed 18 floats in the areas of West Pacific (16) and Eastern Indian Ocean (2). Among them, 8 are the APEX floats and 10 PROVOR floats. After being launched, 2 floats have not sent any information, probably for troubles of communication; 3 floats receive obviously erroneous salinity data, maybe the pump of conductivity sensor has troubles. At present there are 13 floats working in normal conditions.

2. Deployment plan for FY 2003

In 2003, China plans to deploy 12 floats. The fund of 6 floats has been settled and the other remains to be settled. Except that the MST will continue to sponsor the floats, the National Natural Science Foundation of China (NSFC) has approved 2 projects, to support the research oceanographers and atmospheric experts on the application of Argo data.

China will still deploy the Argo floats in the West Pacific and Eastern Indian Ocean. In the near 3 years, we will do the best to launch at least 80 floats in the areas.

3. Issues and suggestions

(1) Data receiving and processing

For some reasons, China has not obtained Argo float profiles from the GTS up to now, but only by Internet to get the raw data from the French CLS (Collect Location Satellites). State agencies-related have noticed this issue and are now looking for ways to deal with it.

In the National Marine Data & Information Service (in Tianjing), a website, <http://www.argo-cndc.org>, "China Argo Data Center" has been set up, which is responsible for the global Argo data collecting, processing, distributing and exchanging. The Second Institute of Oceanography (in Hangzhou) presides over the floats deploying, real-time data receiving and processing, and delayed mode QC. We have imported the model of Argo data delayed mode QC developed by PMEL (Wong et. al.), and have tried the work of delayed mode QC to the Argo data of the 2 floats deployed in Oct.2002, and some experience has got. In 2003, we plan to use the model to deal with the delayed mode QC to all the floats data. The results will be published in the Web site (<http://www.sio.org.cn/argo>) and other related websites, to provide different users the application of the Argo data into the ocean and weather prediction and forecasting, and science research. Besides, Prof. Stephen C. Riser, Ocean School of University of Washington, helped China set a real-time APEX floats

information homepage (<http://flux.ocean.washington.edu/sio>) in his Lab, for all Argo members to know the implementation of China Argo project.

(2) Argos receiving and communication

It is said that the Argos service has different criteria for the charges of different countries to use the Argos satellites locating and communicating. For the International Argo project, if it is possible to use the same charge criterion to all the Member countries, to support these countries to deploy more Argo floats?

At present, we have not the capability to send our Argo floats data through the GTS port in Beijing, but trust French GADC to send to GTS.

(3) Developing Argo floats

In 2002, China deployed 18 floats, but there are 4 cannot get the data. We are concerned the lifetime of the remaining floats working in the sea. This is the problem all the floats providers consider. So improving the specification and quality of the floats, and prolonging the life, is the main task and the target of the floats manufactures

China is now developing the Argo float. A floats sample with a pressure and temperature sensor has been tested in the sea, and sets of pressure and temperature data in the layer 0-1000m have been obtained. But there are some technical problems. It is hoped all the member countries can help and support. What China develop the floats is aimed at reducing the cost, having more floats to deploy and maintaining the Argo observing array long-term running.

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