

Argo National Data Management Report - India

1. Status

- *Data acquired from floats*

India has deployed 56 floats so far. Out of these, 14 floats are not working. Remaining floats are processed and sent to GDAC from 15 June 2004. Presently, the processing is done manually once in a day and real-time quality controlled data are sent to GDAC. From November 2004, we will be in a position to send data to GDAC after real-time QC automatically twice a day. Also, INCOIS is setting up a Regional Data reception centre for receiving ARGOS data directly from NOAA satellites. This will enable faster delivery of data to GDAC.

- *Data issued to GTS*

Presently we do not have GTS access; hence we could not send Indian floats data to GTS. We have requested ARGOS CLS to send Indian floats data to GTS. Efforts are underway to get GTS access at INCOIS.

- *Data issued to GDACs after realtime QC*

Data from 42 floats are sent to GDAC after real-time QC. However, we have some problem in sending the trajectory file, which will be sorted out after this meeting.

- *Data issued for delayed QC*

All Indian float data is ready to be subjected to delayed mode QC procedures.

- *Delayed data sent to GDACs*

PMEL delayed mode QC software has been configured in INCOIS system. As a test case, limited numbers of floats have been subjected to DMQC. However, we have not sent to GDAC.

- *Web pages*

INCOIS maintain Web_GIS based site for Indian Argo Programme. It contains entire Indian Ocean floats data with trajectory.

Argo floats deployed by India are processed and made available at INCOIS website. Data from the floats deployed in the Indian Ocean by other countries are received from GDAC and made available at INCOIS website in ASCII format. User can download data from selected number of floats, region, depth, parameters and/or time.

- *Statistics of Argo data usage*

Presently, Argo data are used by India Meteorological Department for their operational use.

Argo data are used for some of the applications related to Monsoon, Cyclone, equatorial Indian ocean variability, water mass identification, etc.,

In India, INCOIS is nodal agency for Indian Argo Project. Currently, 4 different groups in India are using Argo data for different applications.

- *Products generated from Argo data ...*

Presently, waterfall plots are made available at INCOIS website for the Indian floats. However, from November 2004, other products will also be made available.

2. Delayed Mode QC

PMEL software for DMQC has been configured at INCOIS. Test calibrations for limited number of floats have been carried out. However, in case of many floats, the WOA 2001 climatology used by the software is inadequate to make a meaningful calibration in the North Indian Ocean. Climatology for this region will be improved using the data sets available from the Indian Research Cruises conducted from 1965 to 2004. India is already collecting number CTD profiles during deployment of Argo floats and other oceanographic cruises, which will be used for improving climatology of this region.

Further, one Scientist from INCOIS is being deputed to IOS, Canada under POGO fellowship immediately after this meeting to get familiarized with DMQC.

Delayed mode QC data will be sent to GDAC from January, 2005.

3. GDAC Functions

India has no GDAC function.

4. Regional Centre Functions

INCOIS, India propose to act as a Regional DAC for the Indian Ocean from 30 N to 30 S and 20 E to 120 E. INCOIS has already placed a full time position for this activity. We plan to implement the required functions of an RDAC such as float to float comparisons, float-nearby CTD comparison, and development of high quality climatologies. A web site for the Regional Data Centre will be ready from Feb, 2004.

INCOIS is currently acting as deployment coordinator for the Indian Ocean and plans to continue in the future.