Chinese Argo National Data Management Report
ADMT-18
Hamburg, Germany, 27 November-2 December 2017

1. Status
(Please report the progress made towards completing the following tasks and if not yet complete, estimate when you expect them to be complete)

- Data acquired from floats

From October 2016 to November 2017, China acquired 5,177 profiles from 153 active floats. These floats were deployed by 9 PIs from 6 organizations. It should be noted that 6 APEX floats (with Aanderaa Optode 4330) deployed by Ocean University of China in 2015 were added into GDAC, because their PI agreed to share the data with Argo community.

Core Argo: 5,177 TS profiles (53 APEX, 77 PROVOR, 18 HM2000, 4 ARVOR and 1 NAVIS_A)

BGC Argo: 122 DO profiles (6 APEX)

- Data issued to GTS

CSIO sends daily BUFR bulletins on GTS through China Meteorological Administration (CMA). Unfortunately, there was a breakdown during May-October 2017, owing to a technical problem at CMA. The submission of BUFR bulletins was restored in the mid of this October. The TESAC data are still not inserted into GTS because CMA has not a fixed person deal with it.

- Data issued to GDACs after real-time QC

From the last ADMT meeting, China submitted 5,177 R-files to GDACs after real-time QC. All the meta and technical files for both of the dead and active floats have been converted to V3.1. While there are still old profile and trajectory files remaining to be converted.

- Data issued for delayed QC

There is a severe backlog for delayed QC. The situation is not changed from the last ADMT meeting owing to the lack of human resource. Next year, a new staff will be employed to eliminate the backlog.

NMDIS has newly conducted the DMQC for NMDIS' floats and submitted 488 testing profiles to GDAC. It seems the data was not adopted by GDAC and more work will be done to find the reason.

- Web pages

The China Argo Real-time Data Centre (Hangzhou) maintains a website (http://www.argo.org.cn) from which the latest progress on China Argo, the real-time observations from Chinese floats including data file and related plots are provided. Various Argo products and a Web-GIS based global Argo data inquiry system are also provided to users. NMDIS maintains the China Argo Data Centre (Tianjin) website (http://www.argo.gov.cn), as the CMOC/China was established in NMDIS in 2015, the Argo data and products are aslo delivered on CMOC/China website (http://www.cmoc-china.cn). Since NMDIS will unify the website style, a new Argo website will be developed and the old website is suspended updating right now.

- Statistics of Argo data usage (operational models, scientific applications, number of National Pis…)

The Argo data have become the most important dataset in scientific and operational applications. NMEFC and NMDIS from SOA, IAP/Chinese Academy of Sciences have applied Argo data into their operational models. Most of students or scientists downloaded data from GDACs or CSIO. There are 9 PIs from 6 organizations.

- Products generated from Argo data

NMDIS has developed 1º×1º monthly gridded TS products and 5º×5º multilayer velocity fields. The National Marine Environmental Forecasting Centre (NMEFC) developed a reanalysis product of monthly temperature and salinity fields in tropical Pacific Ocean.

CSIO has developed a yearly updated gridded Argo product — BOA_Argo (ftp://data.argo.org.cn/pub/ARGO/BOA_Argo/). It is based on the post-QCed Argo dataset provided by CSIO that keeps about 81% of the global Argo data. This April, an english user manual was prepared and sent to Megan Scanderbeg, from then on the Argo-UCSD provided a link to access this gridded dataset.

CSIO has prepared a global Argo dataset (1996-May 2017) that can be downloaded from ftp://ftp.argo.org.cn/pub/ARGO/global/. The data of each float have been visually

checked and a post-QC has been conducted. Statistically, the good temperature and salinity data are account for 81.7% and 80.7% of the totals (floats in the grey list are also eliminated).

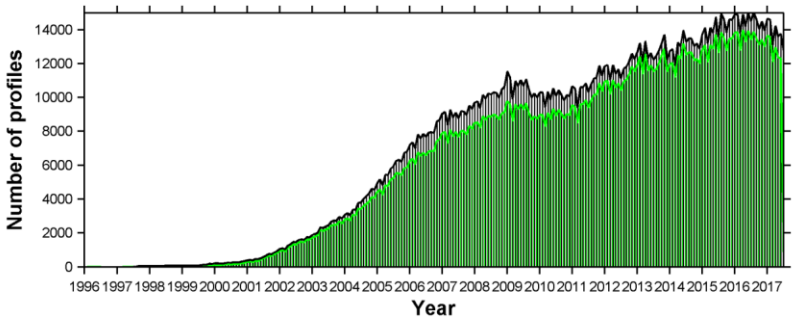

Fig.1 The monthly number of the Argo profiles (1996-May 2017)

Black: Downloaded from GDAC; Green: After post-QC

2. Delayed Mode QC

(Please report on the progress made towards providing delayed mode Argo data, how it's organized and the difficulties encountered and estimate when you expect to be pre-operational .)

OW tool is used to carry on delayed mode QC for Argo salinity observations, before this, a thermal mass correction will be conducted for all APEX floats. 2 out of 10 HM2000 floats have been found experience conductivity sensor drift in the South China Sea, however, we do not have a CTD reference dataset in this marginal sea. To prepare a good CTD reference dataset in the South China Sea is quite difficult because we cannot get many CTD casts from various institutes and universities. Even if we can get those data, the quality control will need a lot of human resource because some of them may have low quality.

3. GDAC Functions

None.

4. Regional Centre Functions

(If your centre operates a regional centre, report the functions performed, and in planning)

None.