*Argo Steering Team Meeting (AST-15), Halifax, Canada, 17-21, March 2014*

# National Report on Argo-2013

**by Republic of Korea**

## Deployment in 2013 and Future Plan

Korea Meteorological Administration (KMA) and Korea Institute of Ocean Science & Technology (KIOST) are involved in the International Argo Program since 2001. In 2013, KMA deployed an additional 16 floats in the East Sea (11 floats) and southwestern region of Kamchatka Peninsula (5 floats).

KMA has a plan to deploy 16 floats in the Northwestern Pacific Ocean (5 floats) and the East Sea (11 floats) in mid-July 2014. One float equipped with DO sensor will be deployed in the East Sea. It is expected that KMA is able to continue the float deployment.

KIOST's strategy regarding the Argo program is under revision in terms of the contribution toward the global ocean observation.

## Status of Argo data management

During Jan. - Dec. 2013, 2,546 R-files from KMA were sent to GDAC.

National Fisheries Research and Development Institute (NFRDI)/Korea Oceanographic Data Center (KODC) is responsible for DMQC. NFRDI/KODC executed DMQC for 15,083 profiles (~87.8% of total profiles).

## Research and operational uses of Argo data

KMA conducted planning research for maintaining the optimum Argo observational network in the East Sea (Sea of Japan). When considering correlation length scale (i.e., about 60 Km) in the East Sea, it is considered that a simultaneous observation by uniformly distributed 82 floats is proper to construct a real-time monitoring system in the sea. Thus, it is concluded that about 27 floats should be deployed every year when considering the life time of the float in the East Sea (i.e., about 3.6-year). The location of deployment is also discussed to achieve spatially uniform observing system in the East Sea.

KMA has developed Regionally Adapted Quality Control (RAQC) for the global ocean. This year, we apply it to the Argo data observed in the marginal sea (i.e., East Sea) by adding several QC procedures into RAQC. The verification of RAQC results were done by the comparison with DMQC data during 2003-2011. When DMQC results are assumed to be true value, the success rate of RAQC reaches about 99.8%. The newly developed RAQC possibly contribute to the improvement of DMQC procedure in the East Sea.

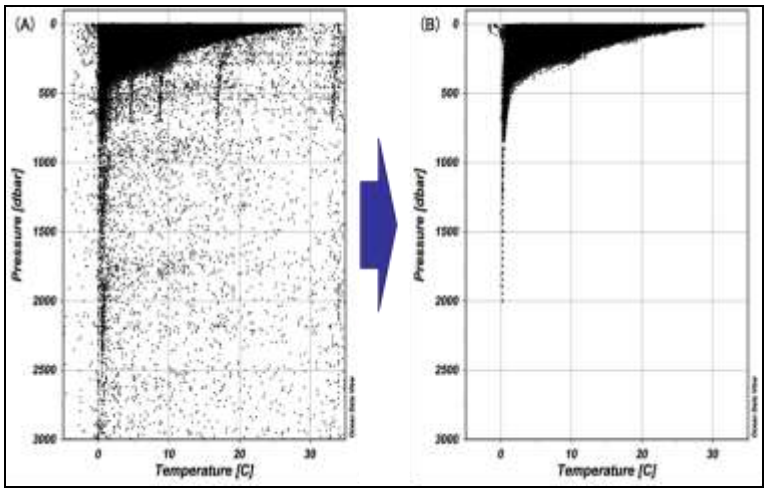


Fig. 1. ARGO temperature profiles from 1997 to 2013 in the East Sea (a) before the RAQC (b) after the RAQC.