Argo National Data Management Report(17th ADMT)

**KMA (Korea Meteorological Administration)/
NIMS (National Institute of Meteorological Sciences)**

1. Status

1.1. Data acquired from floats

In this year, KMA/NIMS DAC deployed additional 16(East Sea/Sea of Japan:10ea, Pacific Ocean:6ea) Argo floats and distributed real-time profiles data to the Global Data Assembly Centre(GDAC).
KMA has deployed 217 Argo floats in the East Sea/Sea of Japan and North Pacific Ocean including 57 active floats as of September 20, 2016. The DAC is acquiring ARGOS messages and IRIDIUM messages via web service from CLS in real-time. Most profiles transmitted to GDAC in the netCDF format and GTS using TESAC and BUFR format data after real-time QC on operational system.
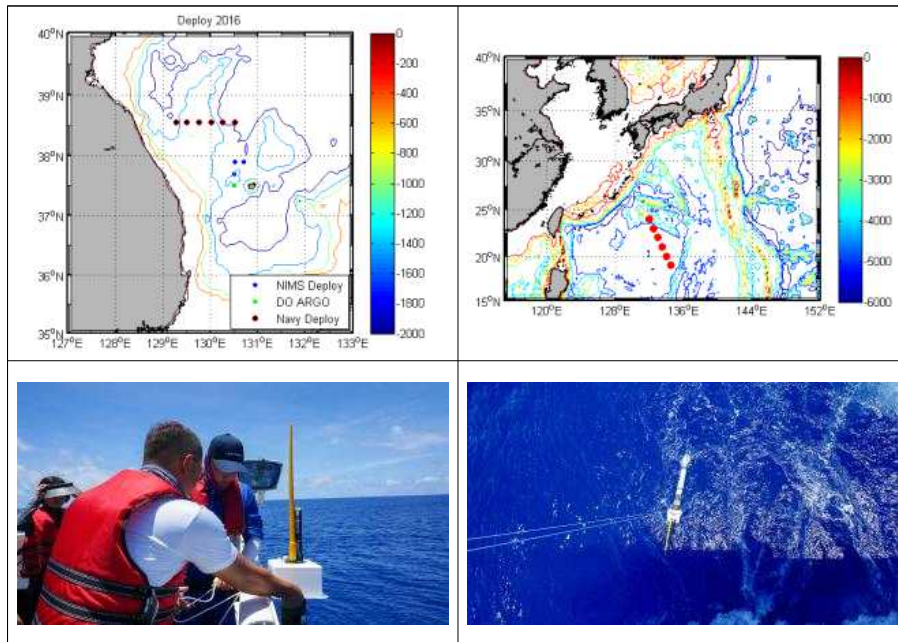

Fig.1. Deployment location of Argo floats in the East Sea/Sea of Japan, Pacific Ocean. The photos are deployment of floats.

1.2. Data issued to GDAC

During January~September 2016, 1,700 real-time data of KMA were sent to GDAC.

KMA will be convert the meta, trajectory, technical and profile data of KMA floats, including APEX, ARVOR, PROVOR, from Octorber. We have converted V.2.2 to V.3.1 and submitted them to GDAC. and we will convert to historical data in this year.
Since the May, 2016 KMA have changed Dissolved Oxygen data unit from micromole/L to micromole/Kg.

1.3. Statistics of Argo data usage

NIMS/KMA operates Global Ocean Data Assimilation and Prediction System, based on the NEMO-CICE coupled models and NEMOVAR assimilation. The system has a resolution of about 1/4 degree and 75 levels. The operation has daily cycle with 1-day hindcast and 1-day forecast, and global Argo profiles obtained from GTS network (Tesac and bufr formatted data) are assimilated with 24-hour time window.

1.4. Web pages

KMA is operating the Argo Korea web page. The URL is http://argo.nims.go.kr. It provides profile data and status of Argo floats to the public. There is a monthly average of performing 22,600 hits(visits).
From the last year, Korea web page is possible to view by the firefox, explorer and chrome browser.

Fig.2. Argo web page of KMA/NIMS.

1.5. Deployment plan for 2017

Yellow Sea and South Sea of the Korea is a lack of Argo float data region. Mean water depth of Yellow Sea and South Sea of the Korea is 44m and 101m, respectively. We was not able to deploy Argo float due to shallow water depth over their region in the past time. We are going to deploy Argo float for shallow water depth over the Yellow Sea and South Sea of the Korea. Below figure indicates deployment position in the next year. Eight floats will be deployed over the Yellow Sea and South Sea of the Korea, respectively. And we will also deploy two floats over the East Sea/Sea of Japan.
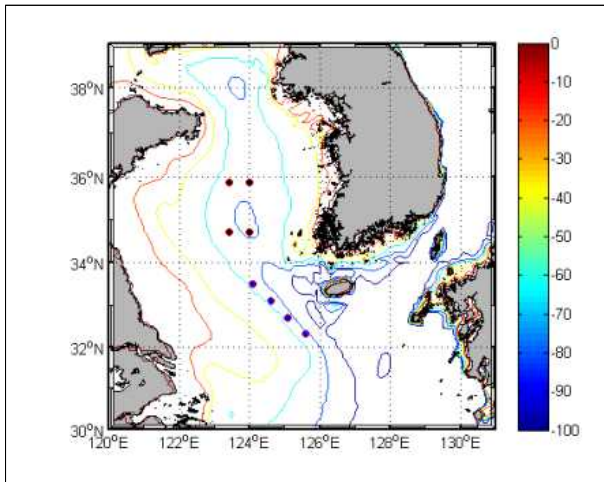

Fig. 3. Map of bathymetry and deployment location around Korea. Dot point indicates Argo float location for year 2017.

2. Delayed Mode QC

National Institute of Fisheries Science(NIFS, former NFRDI) / Korea Oceanographic Data Center(KODC) is responsible for Delayed Mode QC(DMQC) of KMA/NIMS Argo floats. During November 2015-September 2016, NIFS/KODC has sent 21,604 D-files to the GDACs after DMQC. KMA/NIMS D-files of profile format V.3.1 will be provided to the GDAC from October 2016.