

National Report on Argo-2012

by Republic of Korea

Deployment in 2012 and Future Plan

Korea Meteorological Administration (KMA) and Korea Institute of Ocean Science & Technology (KIOSTⁱ) are involved in the International Argo Program since 2001. In 2012, KMA deployed additional 15 floats in the East Sea (10 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 August 2013. One float equipped with DO sensor will be deployed in the East Sea. It is expected that KMA is able to increase float deployment.

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

Status of Argo data management

During Jan. - Dec. 2012, 2,617 R-files of 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 9,982 profiles (~73.7% of total profiles).

Research and operational uses of Argo data

KMA is developing an operational ocean forecasting system for the global ocean, co-working with UKMO. Last year, KMA successfully introduced NEMO/NEMOVAR system with a resolution of ORCA025L75. In 2013, KMA will develop pre-processing system for the ocean observation including Argo. After preparation of operating system, KMA will assess an effect of Argo data on its data assimilation system.

Using Regionally Adapted Quality Control and the OI method, KMA generated gridded monthly temperature and salinity fields for the North Pacific Ocean (-30°S ~ 60°N) from Jan. 2004 to Dec. 2011. Currently, the verification of gridded fields is being carried out by comparison with

WOA01, OI-SST, and CTD observations. Simultaneously, KMA works on global gridded T-S fields based on Argo data.

Web pages

KMA is maintaining the Argo Korea Web site. The URL is:

<http://argo.metri.re.kr/>

The screenshot shows the Argo Korea Web site interface. At the top, there are logos for NIMR (National Institute of Marine and Coastal Affairs) and the Argo program. The main navigation bar includes links for ARGO 플로트, 실시간ARGO 자료, 지연모드ARGO 자료, 동해 수온 모니터링, 해양예측모델, 자료실, and 관원사이트. The main content area features a map of the North Pacific Ocean (30°N to 60°N, 115°E to 175°E) with colored dots representing Argo floats. A legend on the right indicates the collection period for each float: green for 0-15 days, yellow for 15-30 days, orange for 30-60 days, purple for 60-90 days, and red for more than 90 days. Below the map, there is a search bar for WMO ID and checkboxes for displaying float status, collection period, and WMO ID. A table at the bottom provides detailed information for several floats, including their WMO ID, collection start and end dates and times, coordinates, and the number of profile files.

WMO-ID ▲	최초 수신				최근 수신				프로파일 개수
	날짜	위도	경도	날짜 ▼	위도	경도	날짜 ▼		
7900299	2011년 08월 02일 09시 40분 10초	38.872 N	132.853 E	2013년 02월 12일 18시 12분 17초	36.962 N	135.657 E	67		
2900903	2008년 05월 27일 18시 17분 10초	38.036 N	131.116 E	2013년 02월 12일 18시 10분 07초	38.989 N	138.998 E	234		
7900297	2011년 07월 17일 12시 30분 11초	37.334 N	131.544 E	2013년 02월 12일 09시 20분 56초	38.054 N	135.156 E	79		
2901251	2012년 06월 29일 07시 23분 09초	37.009 N	130.550 E	2013년 02월 12일 06시 27분 26초	36.589 N	135.594 E	235		
7900296	2011년 07월 25일 11시 14분 14초	37.047 N	131.028 E	2013년 02월 12일 06시 24분 30초	35.634 N	131.220 E	75		
2900440	2004년 12월 06일 08시 58분 16초	38.086 N	130.160 E	2013년 02월 11일 18시 35분 19초	41.342 N	137.108 E	410		
2901230	2009년 12월 07일 15시 28분 57초	38.263 N	132.263 E	2013년 02월 11일 15시 20분 02초	38.690 N	138.282 E	158		

ⁱ From the First of July 2012, KORDI has changed its name to KIOST and takes the new step towards to be the world class ocean research institution by achieving the qualified outcomes from the research and education.