



Argo-Poland National Report 2015

1. The status of implementation

The Polish Argo Program is carried out by the Institute of Oceanology Polish Academy of Sciences (IOPAS). Since 2009 IOPAS has deployed ten Argo floats in the Nordic Seas: two in June 2009 and 2010, one in July 2012, two in July 2014.

Three Argo floats (WMO 6902038, 6902039, 6902040) were deployed in the Norwegian Sea from the board of r/v *Horzont II* in September 2015. All instruments are the APEX floats with Argos transmission system. The floats are still operating at the middle of February 2016. The parking depth is set at 1000 dbars and profiling depth at 2000 dbars. They all have cycles of 5 days. Fortunately, there were no technical problems with the three instruments. Every float have sent 28 complete sets of hydrographic data by the February.

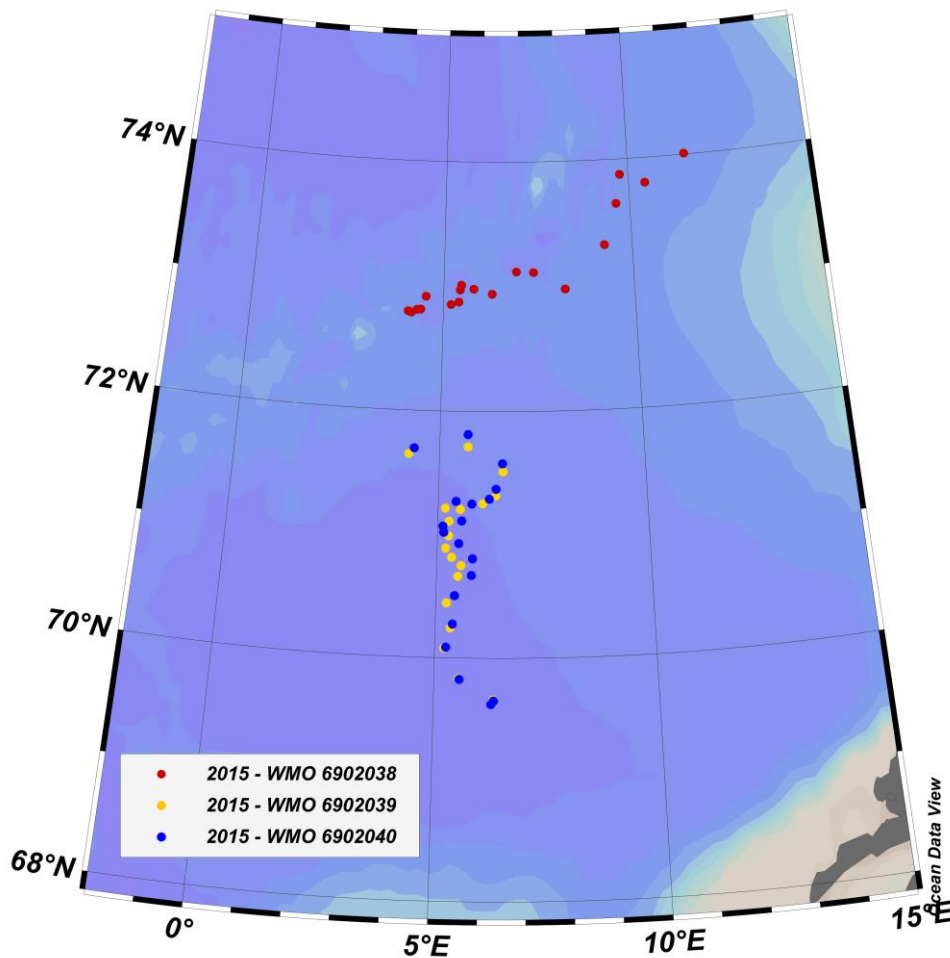


Figure 1. Surface position of three Argo floats deployed in the Norwegian Sea in September 2015.

The float deployed in May 2014 (WMO 6902042) was also active during the whole 2015 year. Unfortunately, the instrument stopped transmission of the data on the 03th January 2016, probably due to drifting under the sea ice. During its whole operating time, the float has been sent 121 complete sets of hydrographic data from the Fram Strait region.

2. Present level of and future prospects for national funding for Argo

Poland is an observer in the EuroArgo ERIC consortium. Polish government (Ministry of Science and Higher Education) pays yearly free for the E-A ERIC. In 2015 Institute of Oceanology PAS received a grant that enabled purchase of 7 Argo floats. Three of them were deployed in 2015, three will be deployed in 2016. Currently we do not get money for data transmission and processing, travel costs etc. Negotiations with ministry are in progress, we hope to develop a system allowing for wider activities. Our ambition is to be a full member of the Euro-Argo ERIC and work in international ARGO structures more actively. We also plan to introduce (basic on Finland experiences) Argo floats at the Baltic Sea. The development works in cooperation with other entities are planned.

3. Summary of deployment plans

Poland committed to launching three Argo floats per year. In 2015 we deployed 3 floats at the Norwegian Sea. In 2016 we plan to deploy 3 floats: two in the Nordic Seas region and one at the Baltic Sea. Plans for 2017 and later will be known after finalizing negotiations with the founding institution (Ministry of Science and Higher Education).

4. Summary of national research and operational uses of Argo data

For 20 years IOPAS carries the scientific program aimed at investigation of the Atlantic Water inflow into the Arctic Ocean and climatic aspect of this process. Every summer expedition of IOPAS research vessel 'Oceania' to the Nordic Seas and Arctic Ocean is organized. Polish Argo floats are usually deployed during these cruises. The data obtained from the Argo floats support this research, in particular those concerning the advection of the warm Atlantic Water through the Nordic Seas. The Argo results are compared with data from standard *in situ* measurements, used in calculation of the signal propagation velocities, current pathways.

All the data are transmitted to the CORIOLIS center.

In the future we are going to use Argo floats at the Baltic Sea to investigate hydrography of the Polish zone and currents pattern.

The Argo Poland program's website is regularly updated by IO PAS:

<http://www.iopan.gda.pl/hydrodynamics/po/Argo/argo.html>

5. Issues that your country wishes to be considered and resolved by the Argo Steering Team regarding the international operation of Argo.

We have no suggestion at the moment.

6. To continue improving the quality and quantity of CTD cruise data being added to the reference database by Argo PIs, it is requested that you include any CTD station data that was taken at the time of float deployments this year. Additionally, please list CTD data (calibrated with bottle data) taken by your country in the past year that may be added to the reference database. These cruises could be ones designated for Argo calibration purposes only or could be cruises that are open to the public. To help CCHDO track down this data, please list the dates of the cruise and the PI to contact about the data.

In 2015 Polish floats were deployed from the Maritime Academy training ship and CTD was not made. IOPAS can provide the 2015 CTD data from the Nordic Seas after placed in the IOPAS database and publication.

7. The Argo bibliography

There were no published scientific articles in the past year. There were also no PhD theses using the Argo data completed neither.