

Argo National Report 2017 – Finland

1. Status of implementation

The Finnish Argo program is run by the Finnish Meteorological Institute (FMI). Since 2010 FMI has deployed altogether ten floats in the Nordic Seas. In addition of oceanic operations, sixteen floats (starting 2012) have also been deployed into the shallow and low salinity Baltic Sea. Four of the Baltic floats have bio-optical sensor suite.

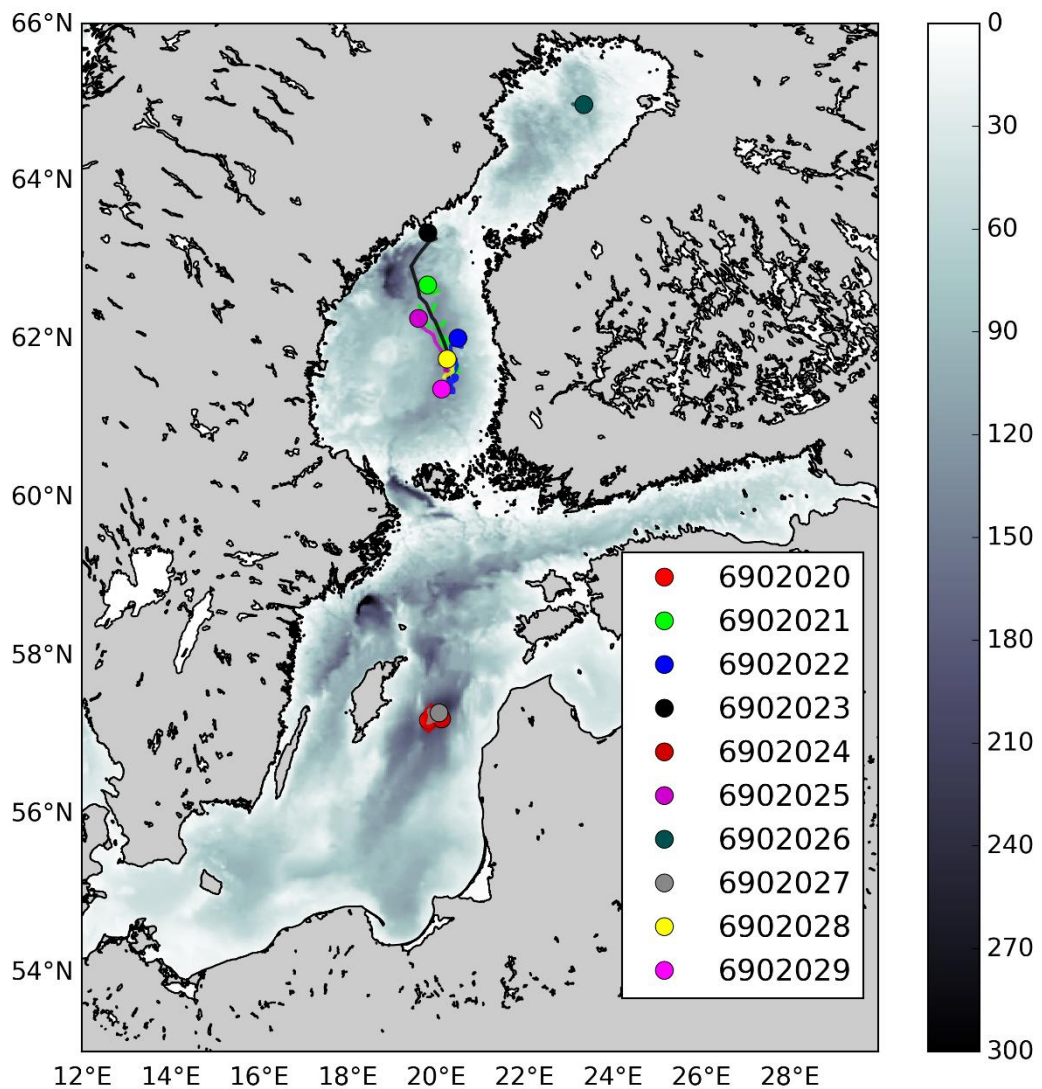


Figure 1, Routes of Argo floats which operated in the Baltic Sea in 2016-2017. Large dots indicate the recovery point or the position of the last profile.

2. Present level and future prospects for national funding for Argo including summary of human resources devoted to Argo

FMI has committed to purchase and deploy three floats in a year, at minimum. Our main geographical areas to operate are the Greenland Sea and the Baltic Sea. During the next years, we are looking for possibilities to further develop the Argo floats to be used in shallow ice-covered seas. First experiments with ice-avoidance on the Baltic Sea has been performed during winter 2015-2016.

3. Summary of deployment plans

This year five floats were deployed in the Baltic Sea.

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

Argo data sets gathered from Baltic Sea are used for validating the operational and research circulation models (Westerlund, Tuomi 2016). Operational circulation models are also constantly compared on current Argo data. Operating Argo floats in the Baltic Sea has itself been a research on the limits of usability of Argos in shallow seas. Ongoing research is done on assimilating Argo data in the operational Baltic Sea circulation models for enhancing their forecasting skills.

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

Finland considers that more resources should be allocated for the environmental monitoring of the Arctic Ocean. The Euro-Argo could coordinate developments and deployments of ice-tethered Argos.

6. CTD data uploaded to CCHDO

No data uploaded.

7. Bibliography

DEEP CURRENTS IN THE BOTHNIAN SEA OBSERVED WITH ARGO FLOATS

Roiha, P., Siiriä, S., Alenius, P., Westerlund, A., and Purokoski, T., Finnish Meteorological Institute, BSSC 2017 – Oral Presentations

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Siiriä S., Tuomi L., Roiha P. and Purokoski T. Monitoring the Baltic Sea: Using Bathymetry to Guide Argo Floats, American Geophysical Union Meeting, Poster presentation. 2016