## **Inventory of the Argo data in the Black Sea: usability and quality control** M. Milanova, A. Gencheva, E. Peneva and E. Stanev University of Sofia "St. Kliment Ohridski", Sofia, Bulgaria

The inventory of the Argo data in the Black Sea is done in close relation with the work in the Bul-Argo project in Bulgaria. This is a project funded by the Bulgarian National Science Fund and the Ministry of Education, Youth and Science, which aims to establish a national research infrastructure in the frame of Euro-Argo activities. The partners in this project are the Bulgarian Institute of Oceanology, Sofia University "St. Kliment Ohridski" and the National Institute of Meteorology and Hydrology. Monitoring the Black Sea state from surface down to the stagnant deep layers is a key focus of Bul-Argo, and the main ambition is to deploy continuously new floats, measuring not only the the thermo-haline characteristics, but also the oxygen concentration and water optical properties. According to the experts' opinion at least 15 floats are necessary to obtain adequate picture of the **Black Sea.** 

Float N	4900489
Start date	14/03/2005
End date	18/01/2009
Resolution	174 hours
Life-time	~3 years
Dates	193
Number of profiles	166
Missing dates	27
Number of points	10536
Errors in P	27



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The initial objective of Bul-Argo project will be to deploy and make operational an array of 6 floats during the 3 years of project execution. The scientific team will procure and deploy the floats, as well as will process and quality control received data. This future work has to lie on a previous experience that is why a preliminary work on the existing Argo data and conclusion about the data quality and usability was done. The data referred to the Black Sea in the database of Coriolis centre are extracted and explored. There are 6 floats found since 2005 of which 4 are considered already dead. On average the lifetime of the floats is about 3 years but the quality of the data is not always high. There are frequently data missing. The errors coming from unrealistic values measured for the pressure, temperature, salinity or unstable stratification were identified. Problems often appear in summer time and in particular in August.

Float N	4900540
Start date	14/03/2005
End date	2/10/2008
Life-time	~3 years
Resolution	174 hours
Dates	180
Number of profiles	154
Missing dates	26
Number of points	10771
Errors in P	14

## Bathymetry [m] and Trajectory float N 4900540















1400

Float N

Start date

End date

Life-time

Dates

Resolution

Number of profiles

Missing dates

JAN 2006

JUL 2005

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JAN 2007

JÚL

JAN 2008

4900542

25/07/2006

23/12/2009

~4 years

174 hours

173

138

35



## Bathymetry [m] and Trajectory float N 4900542





Float N	1901200
Start date	8/12/2009
End date	4/06/2010
Resolution	5days
Dates	37
Number of profiles	36
Missing dates	1
Number of points	2389
Errors in P	0



