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DEPLOYMENT OF AN ARGO FLOAT: A PORTUGUESE CONTRIBUTION TO EURO-ARGO

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The Argo float WMO-3901909 (Fig. 1) was deployed at 20:56 hours of December 29th, 2016 from IPMA's RV Noruega during the MEDUSA Trials survey (see news about this survey in IPMA's site news).

This activity is developed in the frame of MOCCA (MOntoring Climate Change with Argo) project, coordinate by Euro-Argo ERIC (Sylvie Pouliquen, IFREMER) and funded by the European Commission (DG-MARE). MOCCA objective is the deployment of Argo floats from European research vessels and others. Although Portugal is not yet a partner of the consortium Euro-Argo ERIC, IPMA has been collaborating with the consortium as a Portuguese contribution to this European infrastructure, which is the European contribution to the Argo global programme.

This global programme intends to built a continuous global array of 3,800 free-drifting profiling floats. The Argo floats measure vertical profiles of temperature and salinity until 2000 m depth, as well as current velocity at 1000 m.

In Fig. 2 are presented already the first temperature and salinity data acquired by Argo float WMO-3901909. Other sensors could be installed on the floats to measure, for instances, dissolved oxygen, chlorophyll-a, nitrate and pH. After the deployment the Argo float dive until 1000 m depth, making a profile of the several oceanographic parameters, then spent 10 days drifting with the currents at that depth, after which it descends to 2000 m and rises to the surface, making again a profile (Fig. 3). At the surface the float sends the data via satellite to the Data Centers on land (Fig. 3). The average life span of an Argo float is about 4-5 years. In Fig. 4 the positions of the 3739 active floats on January 4th, 2017 are presented.

Imagens associadas



Figure 1. Deployment of Argo float WMO-3901909 on board IPMA's RV Noruega (Courtesy António Pascoal, IST-UL).

Figure 1

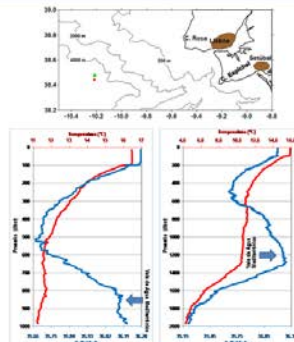


Figure 2

Figure 2. Map of the location of the Argo float WMO-3901909 (● - deployment location and ● - the position at at 00:00 hours UT of December 31st, 2016) and temperature (red) and salinity (blue) profiles during dive and rising of the float at the position 39° 28.42' N and 10° 12.820' W. The blue arrow indicates the Mediterranean Water Outflow (Data: courtesy of Romain Cascoquet, Euro-Argo ERIC).

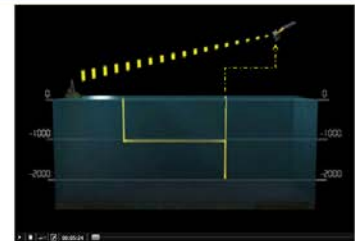


Figure 3. Scheme of a cycle (~10 days) of an Argo float (from ©Euro-Argo ERIC).

Figure 3



Figure 4. Positions of the floats that have delivered data within the last 30 days (from ©Argo Project site).

Figure 4

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