



## Portuguese Argo Activities

Report 2022 for the 24<sup>th</sup> Argo Steering Team Meeting (AST24)

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### Activities

1. Participation in the European project "Euro-Argo Research Infrastructure Sustainability and Enhancement (Euro-Argo RISE)", namely in the WP2-Evolution of the core Argo mission / Task 2.3- Improve Argo observation of boundary regions. In this context, an article is in preparation about the simulations of the best Argo floats configurations to maximise their retention in the Gulf of Cadiz, NE Atlantic, using the VirtualFleet software and a "genetic" algorithm;
2. IPMA acquired, at the end of 2022, four core Argo floats, one full biogeochemical (BGC) Argo float and one BGC Argo float with dissolved oxygen sensor only. These floats are foreseen to be deployed during the first semester of 2023, namely the four core Argo floats in the Gulf of Cadiz (Fig. 1 and Table 1) and the BGC in route from Mainland Portugal to the Azores Islands, in the frame of the "Atlantic Observatory- Data and Monitoring Infrastructure" project<sup>1</sup> summer school on "Ocean Observing Systems and the Mediterranean Water Outflow";
3. The EuroGOOS Argo Task Team has been renewed during 2022 with the kick off meeting to be held on February 7<sup>th</sup>, 2023. The Task Team is Co-Chaired by A. Miguel Santos (IPMA, Portugal) and Griet Neukermans (University of Ghent, Belgium) and integrates the Euro-Argo ERIC into the EuroGOOS framework to mutually

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<sup>1</sup><https://www.ipma.pt/en/investigacao/eeagrants/detail.jsp?f=/en/investigacao/eeagrants/atlanticobservatory.xml> and <https://www.eeagrants.gov.pt/en/programmes/blue-growth/projects/pre-definided-projects/data-and-monitoring-infrastructure/>



coordinate actions related to operational oceanography. The main objective of the Task Team is to facilitate interactions between non-Euro-Argo ERIC institutes/countries and the Euro-Argo ERIC governance structure, especially the Management Board. For more information, please visit <https://eurogoos.eu/eurogoos-argo-task-team/>.

4. Contacts have been started with the Portuguese Ministry of Economy and the Sea to begin the process of Portugal Euro-Argo ERIC membership.



Figure 1. Foreseen deployments of the four core Argo floats in the Gulf of Cadiz during the first semester of 2023 (see Table 1 for actual locations).



Table 1 – Locations for the deployment of the four core Argo floats in the Gulf of Cadiz, during the first semester of 2023

Cruise: ARGOP.T	1-3 March 2023				
Float serial number	lat	long	lat	long	depth (m)
AI2600-22PO001	36°32'51.54"N	8°39'21.70"W	36.54765	-8.65603	2110
AI2600-22PO002	36°26'29.75"N	8°39'26.01"W	36.44160	-8.65723	2076
AI2600-22PO003	36°20'37.47"N	8°39'26.45"W	36.34374	-8.65735	2770
AI2600-22PO004	36°26'13.77"N	8°50'52.88"W	36.43716	-8.84802	2500

### Plans for 2023

1. Deployment of the four core Argo floats in the Gulf of Cadiz;
2. Deployment of two BGC Argo floats between Portugal Mainland and the Azores Islands;
3. Publish Le Jeune et al.(in preparation) paper to be submitted to *Oceans*, during the first semester of 2023;
4. Preparation of proposals to fund the consolidation and the continuation of ARGOP.T, the Portuguese contribution to the Argo Program;
5. Continuation of the process of Portugal Euro-Argo ERIC membership;
6. Under EuroGOOS Argo Task Team it is foreseen the following activities for 2023:
  - ACTION 1: Liaise with Euro-Argo ERIC to arrange joint TT-MB meeting online in June or September 2023 (Co-Chairs, 28th February 2023);
  - ACTION 2: Liaise with Euro-Argo ERIC to initiate planning for a DMQC training course or workshop for TT and ERIC members (M Santos, summer 2023);



- ACTION 3: Prepare short news item announcing kick off of renewed TT (Co-Chairs and J Nolan, February 2023);
- ACTION 4: Develop a procedure for TT members to efficiently share plans for Argo float deployments with each other (Co-Chairs, summer 2023);
- ACTION 5: Present Argo float information from TT members (extracted from OceanOPS) on the Argo TT webpage (Co-Chairs and J Nolan, 2023);
- ACTION 6: Prepare report on TT activities for the EuroGOOS General Assembly (Co-Chairs, May 2023).

## References

Le Jeune, M., Piecho-Santos, A.M., Balem, K., Maze, G. (in preparation). Monitoring the Gulf of Cadiz, NE Atlantic, with Argo floats. To be submitted to *Oceans*.