

# Argo-España



*Parte de la estrategia global de observación del océano*

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## **Report on Argo float WMO 6901242 deployment**

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Argo float deployment for  
**WMO 6901242**

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# 1. Deployment design

Following the Argo program goals, the float density criteria demands a coverage distribution of 3° x 3° grid cells (Fig. 1). In order to maintain the global Argo network coverage and taking in account the current distribution of the Argo floats, Argo España planned 1 float deployment in the Balearic sea area after some gaps in the network were identified.

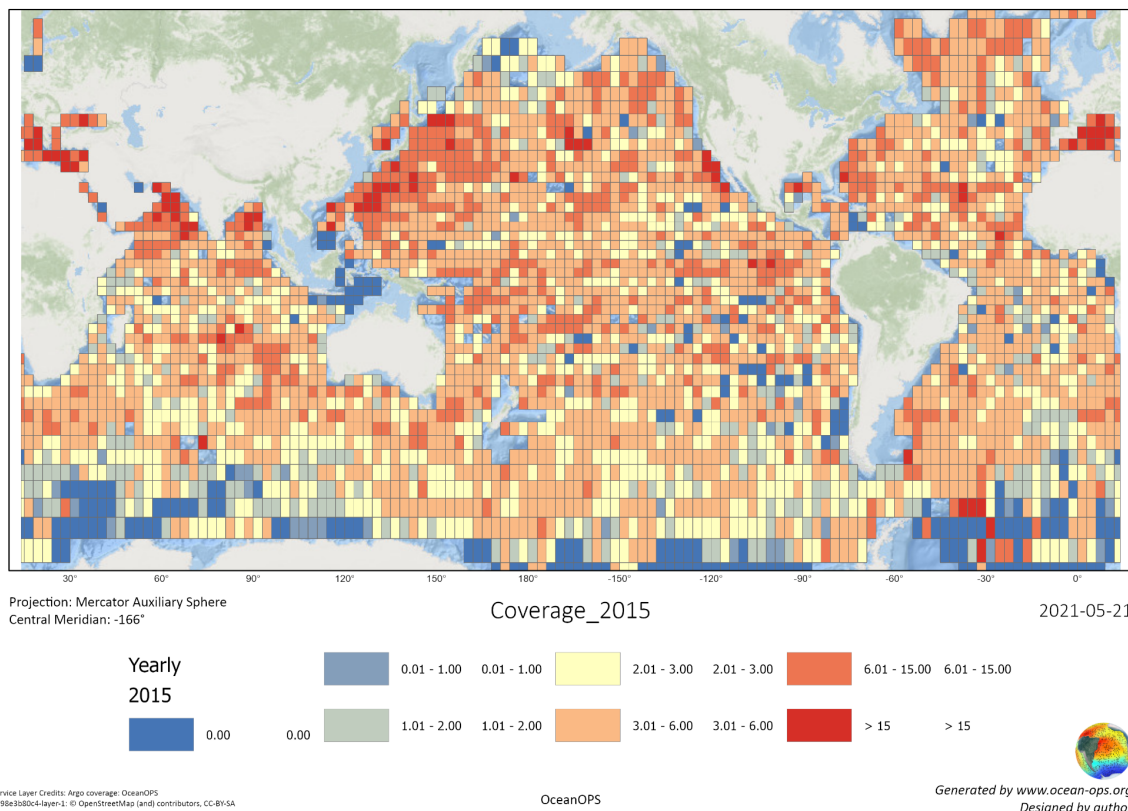


Figure 1. Density of Argo observations in 2015. Deployments in the South Atlantic Ocean are needed if density observations goals want to be reached

In the *Canales Spring 2015* cruise, Pedro Vélez (IEO) led the Argo deployment planning. The R/V SOCIB was planned to carry out the research in the Balearic Sea, through Denia - Ibiza - Mallorca (Fig. 2). Floats deployed at the Balearic Sea are occasionally driven out to shore land, making this area a difficult region to observe continuously. The survey was divided in several transects, which includes an ideal location for Argo España purposes.

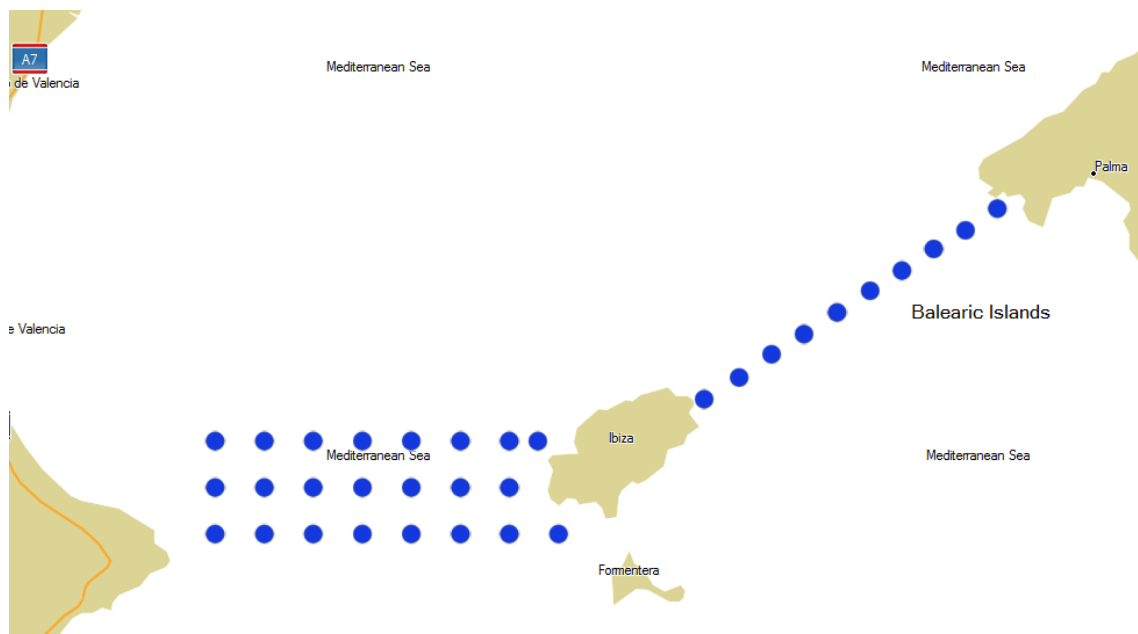


Figure 2. *Canales Autumn 2015* cruise plan.

## 2. Deployment data

Information of the float deployments is shown in these paragraphs.

- a. **WMO 6901242.** The following table contains all the data of the WMO 6901242 deployment during *Canales Spring 2015* cruise, deployed at the middle of the south sampling line in the Ibiza Channel (Fig. 2). CTD cast is available close to the deployment location. Coriolis was notified and all the information was registered at the Argo Information Center database. The data is free and publicly available through the Argo data stream:

<http://www.oceanografia.es/argo/datos/floats/6901242.html>

After cycle 10, the float was caught by a vessel, but it was recovered. Finally, the float was used for other mission with WMO 6901247.

<b>DATE AND TIME</b>	2015 - 04 - 25 / 09:28 UTC
<b>DEPLOYMENT LOCATION</b>	38° 48.162 N 0° 37.032 E
<b>DEPLOYMENT PLATFORM</b>	R/V SOCIB
<b>CRUISE ID</b>	<i>Canales Spring 2015</i>
<b>FLOAT OWNER</b>	SOCIB
<b>PLATFORM TYPE</b>	Apex
<b>SERIAL NUMBER</b>	6900
<b>TRANSMISSION SYSTEM</b>	IRIDIUM
<b>PARKING DEPTH (m)</b>	700
<b>PROFILE DEPTH (m)</b>	2000
<b>DEPLOYMENT DEPTH (m)</b>	missing information
<b>WEATHER CONDITIONS</b>	missing information
<b>IP CRUISE</b>	John Allen

Table 1. WMO 6901242 information deployment.

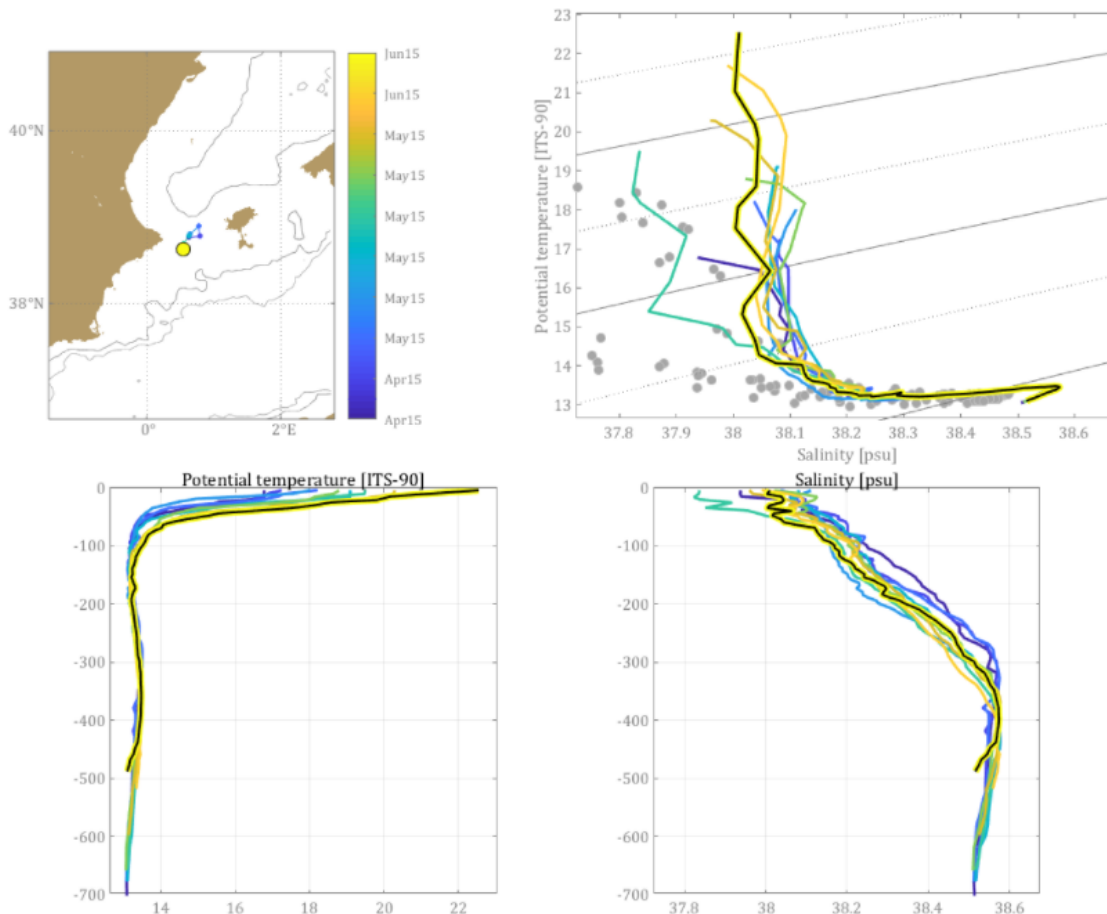


Figure 3. The trajectory of the float since the deployment is shown in the upper left side of the picture. T-S diagram of the data collected by WMO 6901242 is shown in the upper right side of the picture. The grey points are the climatology of the area. The black line is the first profile carried out by the float. The dark blue dashed line describes the CTD cast carried out from the R/V SOCIB. Potential Temperature and Salinity profiles are also shown in the lower side of the picture.

### 3. Float configuration

“MC” parameters (Fig. 4) were set according to the scientific requirements and the oceanographic area of study (Balearic Sea).

#### Float configuration

– Mission configurations

Cycles #	1	2	3-6	7	8	9	10	11-14, 16-17
CONFIG_CycleTime_minutes	1433.33	7200	7200	7200	7200	7200	7200	7200
CONFIG_ParkPressure_dbar	700	700	700	700	700	700	700	700
CONFIG_PistonPark_COUNT	87	87	71	73	66	31	9	9
CONFIG_PistonProfile_COUNT	15	14	14	14	14	14	14	13
CONFIG_ProfilePressure_dbar	2000	700	700	700	700	700	2000	700

– Mission parameters

CYCLE_TIME	PR_CYCLE_PERIOD	PR_IMMERSION_DRIFT_PERIOD
7200	5	9999
MissionCfgUpTime	MissionCfgDownTime	MissionCfgParkPistonPosition
600	6600	87
MissionCfgOkVacuumCount	MissionCfgAscentTimeoutPeriod	MissionCfgMaxAirBladderPressure
96	540	124
MissionCfgParkAndProfileCount	FullyExtendedPistonPos	RetractedPistonPos
10	226	9
CompensatorHyperRetraction	DeepProfileDescentPeriod	ParkDescentPeriod
0	350	190
PRCFG_TimeOfDay	PRCFG_VerboSity	DEEP_PROFILE_FIRST
65534	2	1
		PARKING_PRESSURE
		700
		DEEPEST_PRESSURE
		2000
		MissionCfgBuoyancyNudge
		5
		MissionCfgTargetProfilePistonPos
		15
		InitialBuoyancyNudge
		22
		MissionPreludePeriod
		360

Figure 4. Configuration sheet for the float deployed during *Canales Spring 2015* cruise. Source: Argo Fleet monitoring tool

### 4. Acknowledgements

Argo España would like to thank Pedro Vélez and the crew of the R/V SOCIB, who cooperated for the success of the mission.