

Accuracy and sampling scheme for the Deep Arvor: Extending Argo to 4000 dbar.

Alberto González Santana
6th Euro-Argo User Workshop
July 4-5 2017



INSTITUTO
ESPAÑOL DE
OCEANOGRAFÍA

Argo-España
Parte de la estrategia global de observación del océano

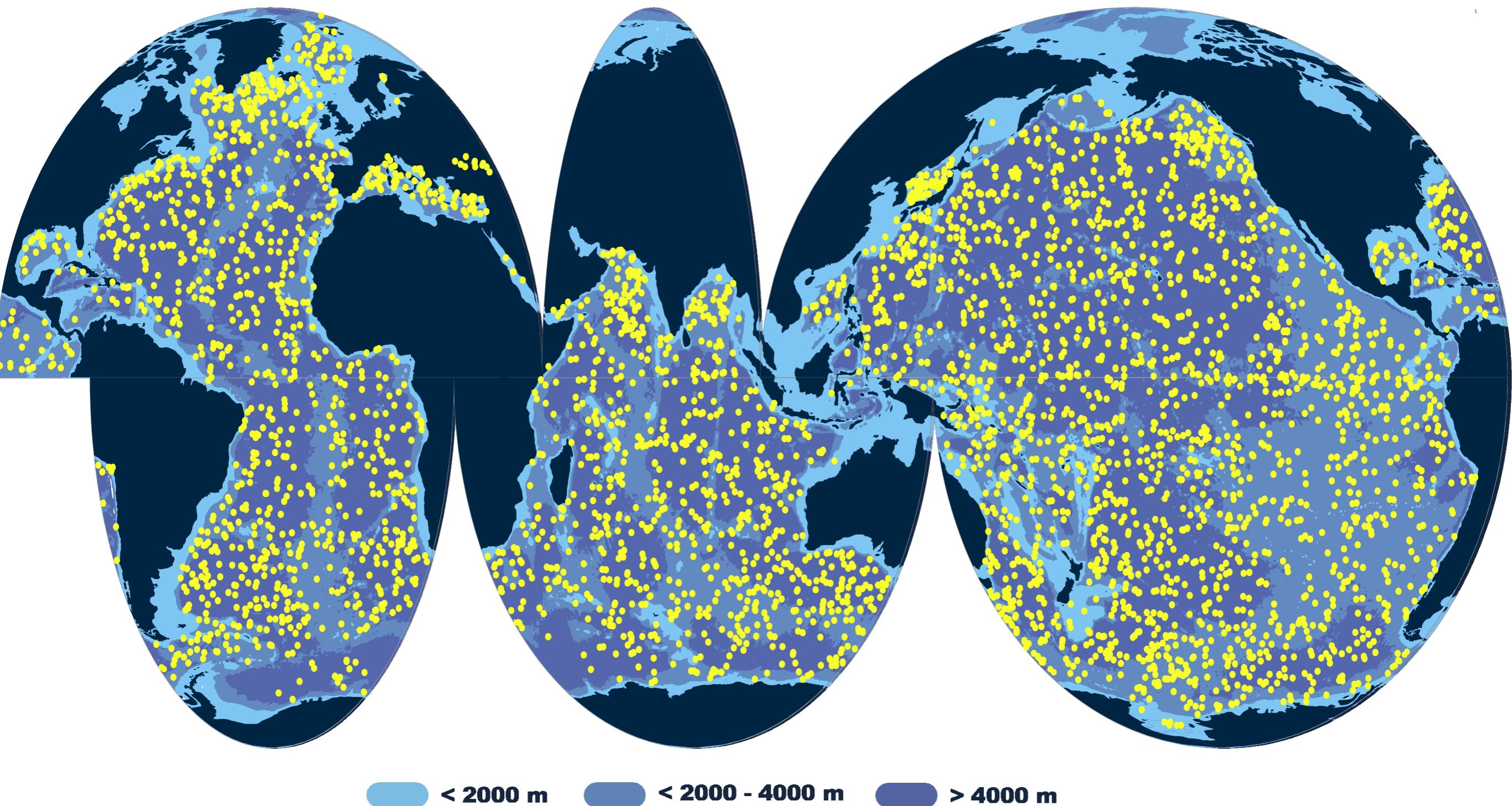


Balearic Islands
Coastal Observing
and Forecasting
System

Outline

- Introduction
- Objective
- Methodology
- Result
- Conclusions

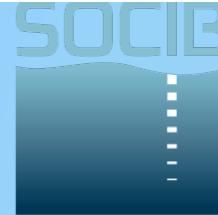
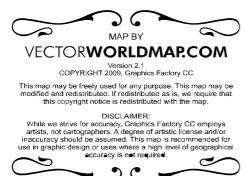
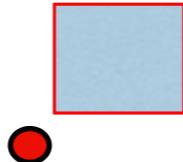
Introduction



Objectives

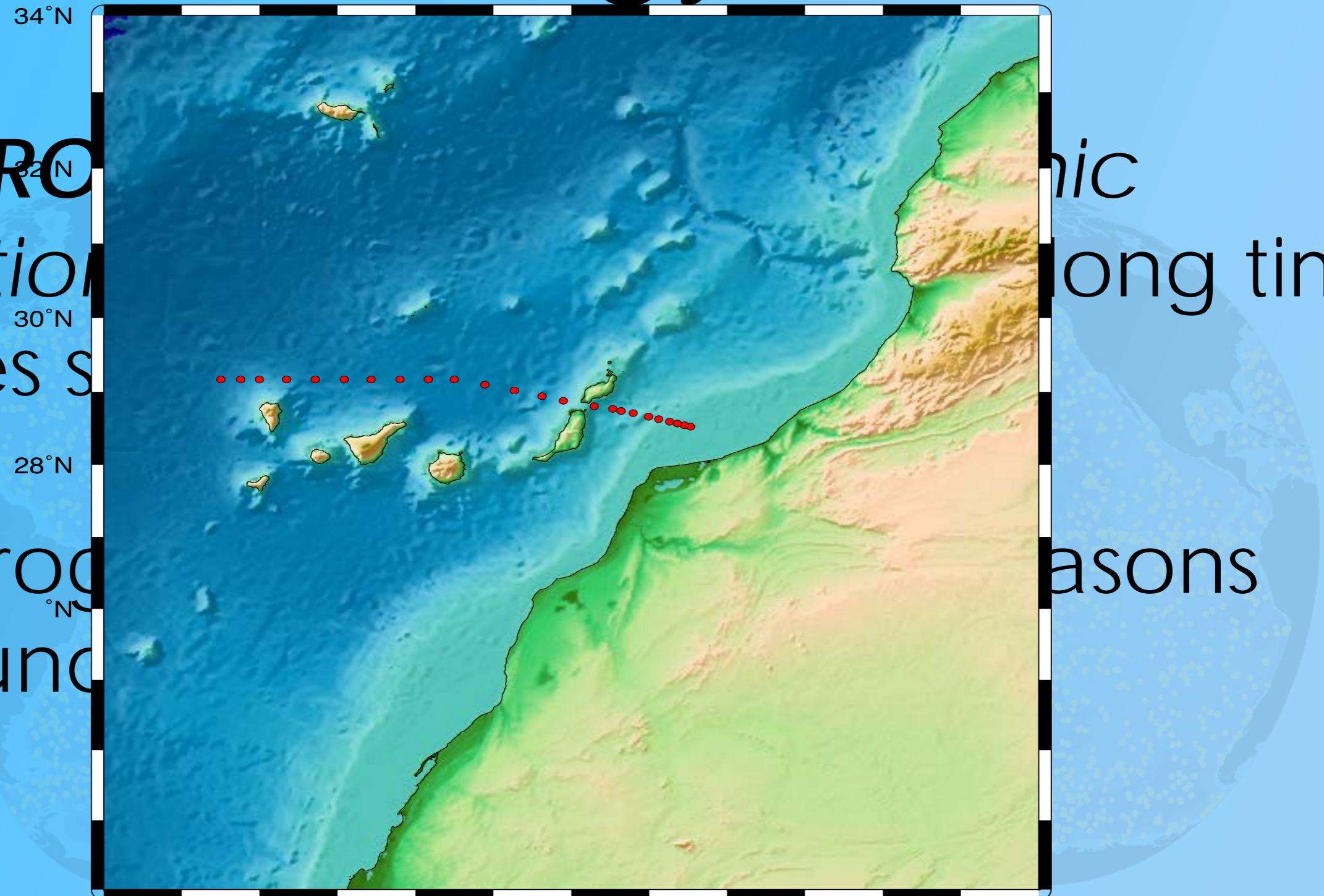
- To test Deep Arvor floats
- Is the Deep Arvor accurate enough for long term variability studies?

Methodology



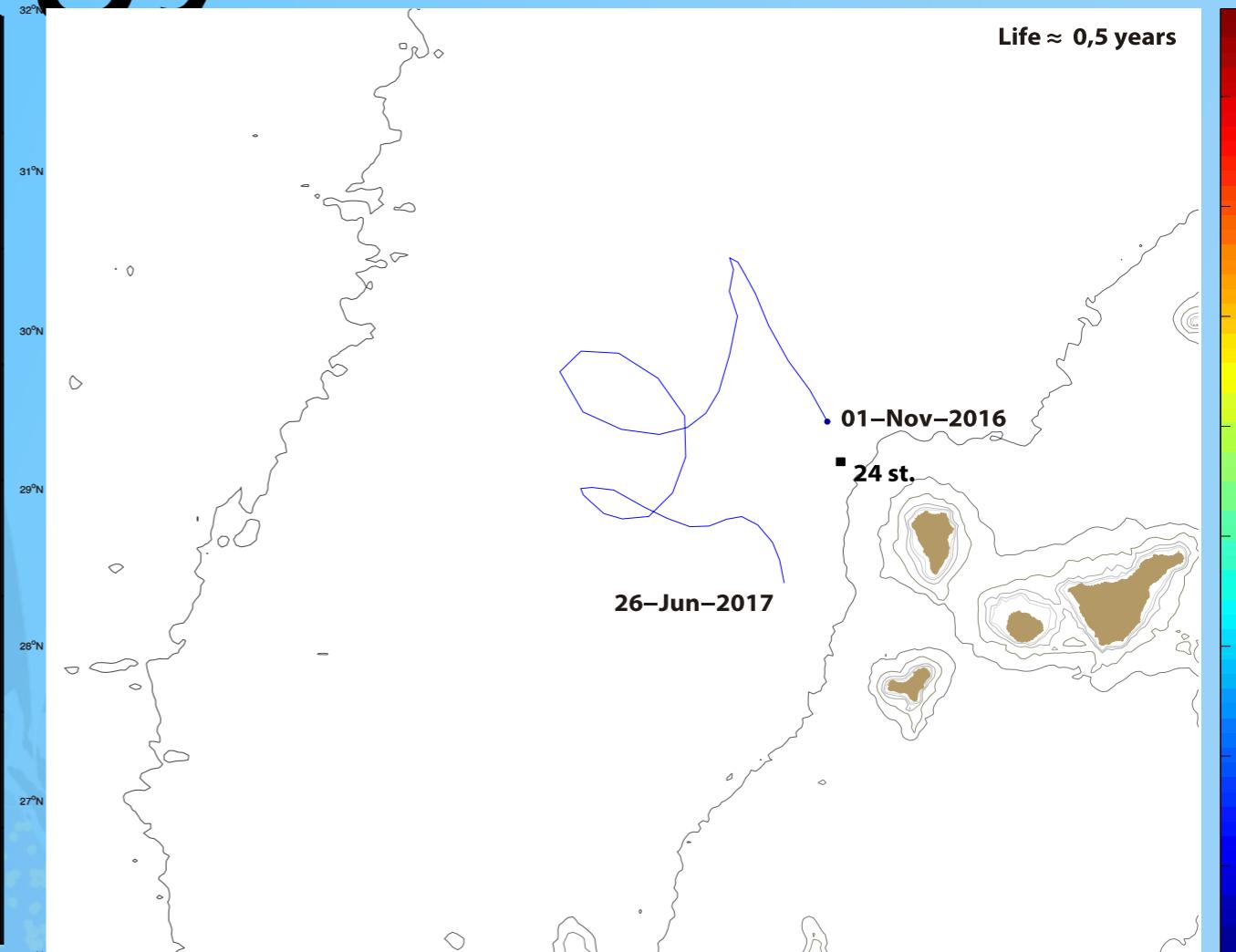
Methodology

- **RAPROC** Section series
- Hydrographic around



Methodology

Parameter	Profiler II
WMO identifier	6901248
Platform Model	Deep Arvor
Dep. date	November 1 st 2016
Last Surf. date	February 16 th 2017
N Profiles	47
Status	Active
Sensors	SBE 41 CP



Deep Arvor - I floats - NKE Instrumentation

Initial accuracy	Cruise	Deep Argo
Parameter	SBE 911	SBE 41 CP
Temperature (°C)	± 0.001	± 0.002
Conductivity (S/m) - sal. equival.	± 0.002	± 0.002



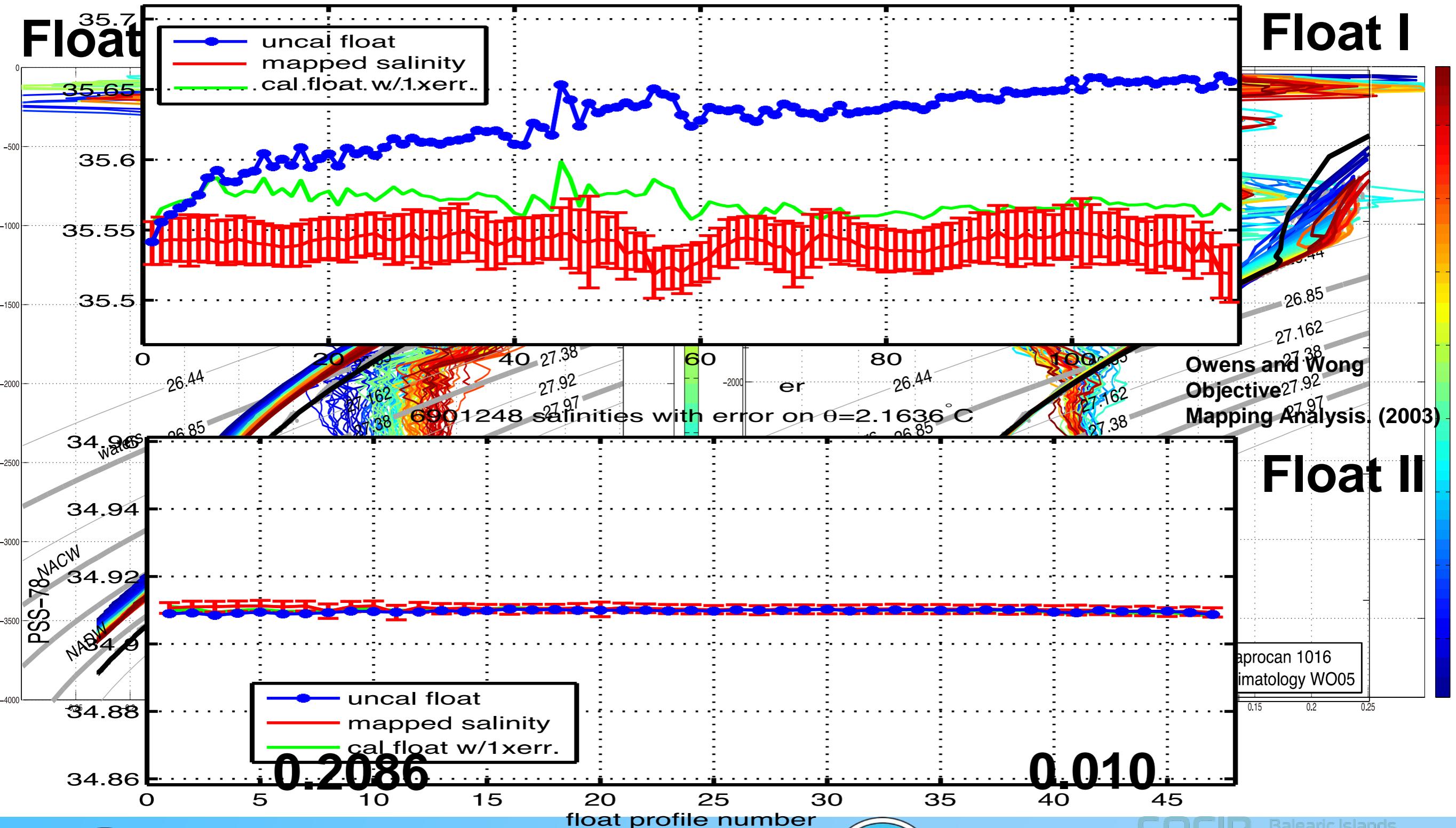
INSTITUTO
ESPAÑOL DE
OCEANOGRAFÍA

Argo-España
Parte de la estrategia global de observación del océano



Balearic Islands
Coastal Observing
and Forecasting
System

Results

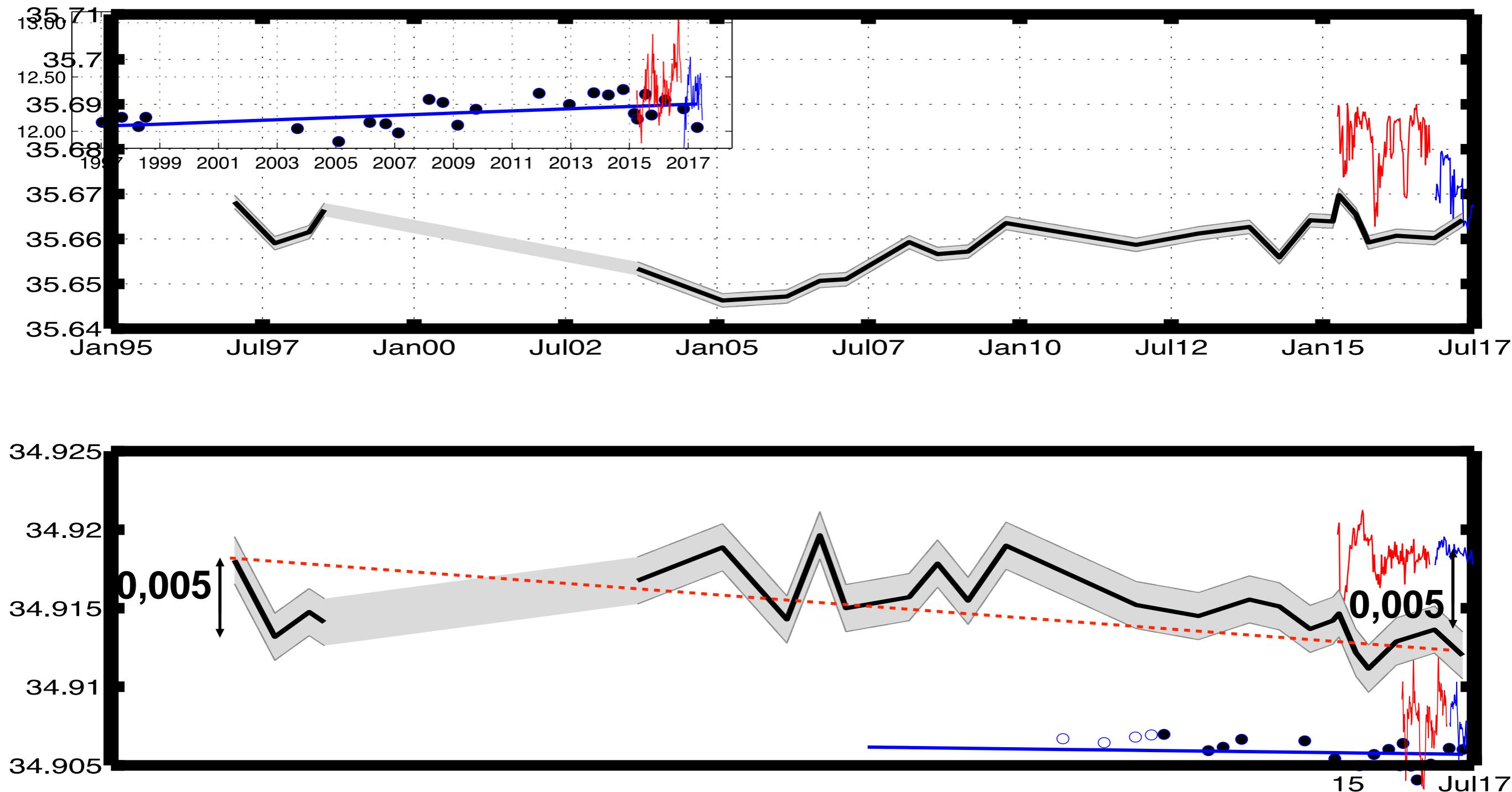


INSTITUTO
ESPAÑOL DE
OCEANOGRÁFIA

Argo-España
Parte de la estrategia global de observación del océano



Results



Conclusions

- High level of measurement quality - affordable cost. Reliable and easy to use. Capable of reach 4000m depth.
- Accuracy range of temperature sensor (0.002) is valid for large-scale purposes as the Canary basin.
- OW works properly but accuracy range of conductivity sensor (0.005) is not enough for our purposes.



Thanks for your attention

Alberto González Santana
Instituto Español de Oceanografía
(IEO) alberto.gonzalez@ca.ieo.es

Pedro Vélez Belchí
Instituto Español de Oceanografía
(IEO) pedro.velez@ca.ieo.es



Argo-España
Parte de la estrategia global de observación del océano

