# Glider Mission
# Summary Report

2012 - 2015
SOCIB (CSIC)

*SOCIB_CANALES_DEC2013 (GR-MR-0023)*

**SOCIB** Balearic Islands
Coastal Observing
and Forecasting
System

CSIC
Universitat de les
Illes Balears
IMEDEA

GOBIERNO
DE ESPAÑA
MINISTERIO
DE ECONOMÍA
Y COMPETITIVIDAD

Govern de les Illes Balears

| Mission Name | SOCIB_CANALES_DEC2013 (GR-MR-0023) | | |
| --- | --- | --- | --- |
| Platform Model | Slocum 1000 G2 | | |
| Platform ID / Name / WMO Code | U243 / SDEEP00 / 68457 | | |
| Related Platforms / Missions | | | |
| Start Date | 2013-12-02 | | |
| End Date | 2013-12-17 | | |
| Total Days | 16 | Total distance (Km / Nm) | 352 / 195 |
| Survey Area (NODC or SDN region) | Mallorca and Eïvissa Channels (Western Mediterranean sea) | | |
| Objective(s) | Establishing the variability of the N/S exchange of water masses that occur through the Ibiza Channel. Sampling a standard transect across the Ibiza Channel several times using physical and biogeochemical sensors. No greater than 1 month gap in between consecutive iterations. The Mallorca Channel is also sampled when operationally practical. | | |
| Scientific Sensors (name & model / serial_number / calibration date) | GPCTD -SBE- / sn 0064 / 19-May-2011 (*) FLNTU -WetLabs- / sn2280 / 15-Jul-2011 (*) OPTODE -Aandera- / sn 1409 / 15-Feb-2011 | | |
| Number of Profiles | 490 (CTD), 0 (FLNTU), 0 (OXY) (**) | | |
| Significant Events | Glider still powered by first-ever-used Lithium factory pack. Survey area reduced to Eïvissa-Valencia channel only. (*) SDEEP00 mounting other glider's CTD and FLNTU (**) Optical sensors off during mission to save energy First ever Glider deployment from SOCIB-R/V Initial deployment failed due to Pitch battery not screwed to pitch-motor Recovery with in-kind contribution of Parc Natural Illots de Ponent | | |
| Mission Summary | This mission stands for the 7th, and final, iteration of the Canales Campaign 2013, carried out by SOCIB's glider SDEEP00 (Unit 243). This mission also closed year 2013 in the Glider Facility. For this mission, U243 was mounting U244's GPCTD and FLNTU sensors for technical reasons. Launching was performed, for the first time, by crew on-board SOCIB-R/V at location N38.9803° E1.0971°. This first launch revealed SDEEP00 could not properly adjust its pitch angle (Pitch Battery was not properly screwed to the pitch motor). This could not be solved remotely so it was decided that SDEEP00 would spend the night drifting on the surface, SOCIB-R/V would recover it on Dec-3rd,08:25am,utc in N39.0461° E1.1326° and a technician flying to Eïvissa in order to fix the problem on-board SOCIB-R/V at St.Antoni's harbor mooring. The second launch took place on Dec-3rd, 13:50pm,utc in N38.9826° E1.0967° also from SOCIB-R/V. Mission resumed without an issue. During the time the glider remained deployed 4 Eïvissa-Valencia channels were surveyed. Overall performance of mechanical and sampling devices was acceptable (SCIENCE_SUPER failed to log sensor data during two segments and 1 mission interrupt due to DE_PUMP failure). Only quite a few oddities coming from DIGIFIN and IRIDIUM devices. Couple of warnings from GPS. Navigation and traced route were also a success. Communications were stable and fluent allowing the transmission of both near-real-time data and telemetry, including ARGOS messages. Due to logistical limitations, recovery was executed with in-kind contribution (4m. RIB and 2 crew) from Eïvissa's local governmental institution 'Parc Natural d'Illots de Ponent'. SDEEP00 was extracted in N38.9931° E1.0578° on Dec-17th, 12:50pm,utc Upon completion, SDEEP00 was received at IMEDEA's glider-lab, put on the bench, revised and properly stored. Gathered dataset was fully backed-up and uploaded to SOCIB's FTP for subsequent processing and diffusion via SOCIB's public repository. | | |

Parc Bit. Ctra. Valldemossa, Km 7,4 · Edifici Naorte, Bloc A, Planta 2ª, Porta 3 · 07121 Palma (Illes Balears, Espanya) · Tel. +34 971 43 99 98 · Fax +34 971 43 99 79

| Principal Investigator (e-mail or contact phone/address) | Prof. Joaquim Tintoré jtintore@socib.es (+34 971439821) |
|---|---|
| Institute | SOCIB in collaboration with IMEDEA |
| Project Affiliation (web-site) | http://www.socib.eu |
| Partnership / Participation | SOCIB (internal long-term project of sustained monitoring line) IMEDEA (in-kind contribution of material and infrastructures) |
| Glider Software Version | v7.13 Acomms |
| Data Retrieval (real-time [ RT ] / delayed-mode [ DM ] ) | Real-time sub-set via satellite link every 6 hours every day Delayed-mode direct download of full gathered data sets |
| Compass Calibration (specify procedure) | Error measurement revealed no necessity to perform a compass calibration |
| Battery Type | Manufacturer's original Lithium batt.pack (700Ah-nominal cap.) |
| Battery Consumption (Ah) | 75,875Ah (reading from 442,175Ah to 518,05Ah) |
| Data Available From | http://thredds.socib.es/thredds/dodsC/auv/glider/sdeep00-scb_sldeep000/L1/2013/dep0009_sdeep00_scb-sldeep000_L1_2013-12-02_data_dt.nc |
| Full Mission Report From | glidertech@socib.es |
| Technical Contact | glidertech@socib.es |

**Figure 1**

(Map providing general overview of Survey Area)



**Mission Summary**

(Map providing detailed overview of Survey Area and traced Flight Path with surface points if possible)