



Glider Mission Summary Report

2012 - 2015
SOCIB (CSIC)

SOCIB_CANALES_JAN2015_(GR-MR-0033)



Balearic Islands
Coastal Observing
and Forecasting
System



MINISTERIO
DE ECONOMÍA
Y COMPETITIVIDAD



Govern de les Illes Balears



Mission Name		SOCIB_CANALES_JAN2015(GR-MR-0033)	
Platform Model		Slocum 1000 G2	
Platform ID / Name / WMO Code		U244 / SDEEP01 / 68967	
Related Platforms / Missions			
Start Date		2015-01-28	
End Date		2014-03-16	
Total Days	48	Total distance (Km / Nm)	962 / 520
Survey Area (NODC or SDN region)		Mallorca and Eivissa 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 0107 / 01-Apr-2012 FLNTU -WetLabs- / sn2279 / 15-Jul-2011 OPTODE -Aandera- / sn 1410 / 11-Feb-2011	
Number of Profiles		2083 (CTD), 467 (FLNTU), 467 (OXY)	
Significant Events	Glider with Lithium factory pack on-board. Intense currents disturbing the completion of the first 2 Eivissa-Valencia channels (compensation maneuvers executed). Altimeter raising false bottom hits prevented the Glider to complete some deep dives. Last mission of SDEEP01 before going for refurbishment.		
Mission Summary	This mission stands for the 1st iteration of the Canales Campaign 2015, carried out by SOCIB's glider SDEEP01 (Unit 244). For this mission, U244 was mounting U243's GPCTD and FLNTU sensors for technical reasons. Launching operation was executed by a 2-member field-team on board SOCIB-I Professional RIB. Due to rough weather conditions, U244 was released closer to home-port than usual (N39.2979° E2.4856°). During the execution of this mission 6 Eivissa-Valencia and 2 Mallorca-Eivissa transects were completed satisfactorily. However, the presence of very strong currents prevented the Glider to stick to the commanded path. To penetrate the area of the currents, SDEEP01 had to be commanded to gain Latitude, before heading West, in an attempt to counteract the push-to-South effect of this currents. This maneuver was specially aggressive during the first 2 Valencia hits. The third Eivissa-Valencia was more quite. Overall performance of mechanical and sampling devices was acceptable but the ALTIMETER (providing false bottom hits that caused the Glider to inflect too soon to the surface and not reaching to the channel bottom). There also were some oddities coming from DIGIFIN, IRIDIUM and GPS. After some altimeter's configuration, bottom detection worked properly. Additionally, Communications were stable and fluent allowing proper near-real-time data sending and ARGOS messaging. Navigation was, as expected, not very much adjusted to the commanded path in the Eivissa channel although SDEEP01 behaved fine in the rest of the track. Recovery took place in the same location of the deployment by the same field-team and vessel. It happened in N39.3222° E2.3242°. Upon completion, SDEEP01 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.		

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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)	254.254Ah (reading from 324.826Ah to 579.08Ah)
Data Available From	http://thredds.socib.es/thredds/dodsC/auv/glider/sdeep01-scb_sldeep001/L1/2015/dep0020_sdeep01_scb-sldeep001_L1_2015-01-28_data_dt.nc
Full Mission Report From	glidertech@socib.es
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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)

