Glider Mission Summary Report

2012 - 2015
SOCIB (CSIC)

SOCIB_CANALES_NOV2014 (GR-MR-0032)

SOCIB

Balearic Islands
Coastal Observing
and Forecasting
System

GOBIERNO DE ESPAÑA
MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD

Govern de les Illes Balears

IMEDEA

CSIC
Consejo Superior de Investigaciones Científicas

UIB
Universitat de les Illes Balears

Mission Name	*SOCIB_CANALES_NOV2014 (GR-MR-0032)*	
Platform Model	*Slocum 1000 G2*	
Platform ID / Name / WMO Code	*U184 / IDEEP00 / 68452*	
Related Platforms / Missions		
Start Date	*2014-11-25*	
End Date	*2014-12-19*	
Total Days 25	**Total distance (Km / Nm)**	*518 / 280*
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)	*CTD -SBE- / sn 0195 / 23-Dec-2009* *FLNTU -WetLabs- / sn 2128 / 01-Feb-2011* *OPTODE -Aandera- / sn 0841 / 01-May-2013*	
Number of Profiles	*884 (CTD), 168 (FLNTU), 168 (OXY)*	
Significant Events	*Deployment directly into Eïvissa-Valencia channel (SOCIB-R/V).* *Important dynamics affecting Glider's deviation from commanded track.* *Super-currents (never observed since 2010), in front of Valencia's coast, prevented Eïvissa-Valencia transect completion not even once.* *Second attempted transect ended with a 43Km drift to South in only 6 hours.* *Dual recovery of this Gliders along with ABACUS's U244.*	
Mission Summary	*This mission stands for the 5th (and final) iteration of the Canales Campaign 2014, carried out by SOCIB's glider IDEEP00 (Unit 184), concurrently with ABACUS-JERICO-TNA mission.* *Deployment was executed on board SOCIB-R/V. Chosen location was N38.9841° E1.1039° (Eïvissa's N-W) to accommodate to SOCIB-R/V's cruise plan.* *During the execution of this mission 4 Eïvissa-Valencia transects were attempted although not 100% completed due to extraordinary N-to-W currents in front of Valencia's coast blocking que advancement of the glider for the last 16Km of the transect. 1 Eïvissa-Mallorca channel was sampled successfully during the return trip.* *Overall performance of mechanical and sampling devices was acceptable. There were some oddities coming from DIGIFIN, SCIENCE_SUPER, IRIDIUM and GPS. Additionally, Communications were stable (but with some call-drops) allowing proper near-real-time data sending and ARGOS messaging. Navigation was totally affected by the presence of very strong currents, for the rest, all navionic systems seemed to work fine.* *Special maneuvers were attempted to escape from the blockage of the currents. It worked only that successive attempts to resume path were unfruitful. On Dec-10th, IDEEP00 ended navigating backwards 45Km in ony 6 hours.* *Considering this, a third channel was not attempted and IDEEP00 commanded to return to Mallorca where it met ABACUS' glider (U243) that was also returning from its cruise. IDEEP00 was the first one to be recovered during a dual-recovery that took place in N39.3045° E2.3785°.* *Upon completion, IDEEP00 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 Alkaline batt.pack (143Ah-nominal cap.)*
Battery Consumption (Ah)	*107.47Ah (reading from 0.702Ah to 108.172Ah)*
Data Available From	*http://thredds.socib.es/thredds/dodsC/auv/glider/ideep00-ime_sldeep000/L1/2014/dep0014_ideep00_ime-sldeep000_L1_2014-11-25_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)	