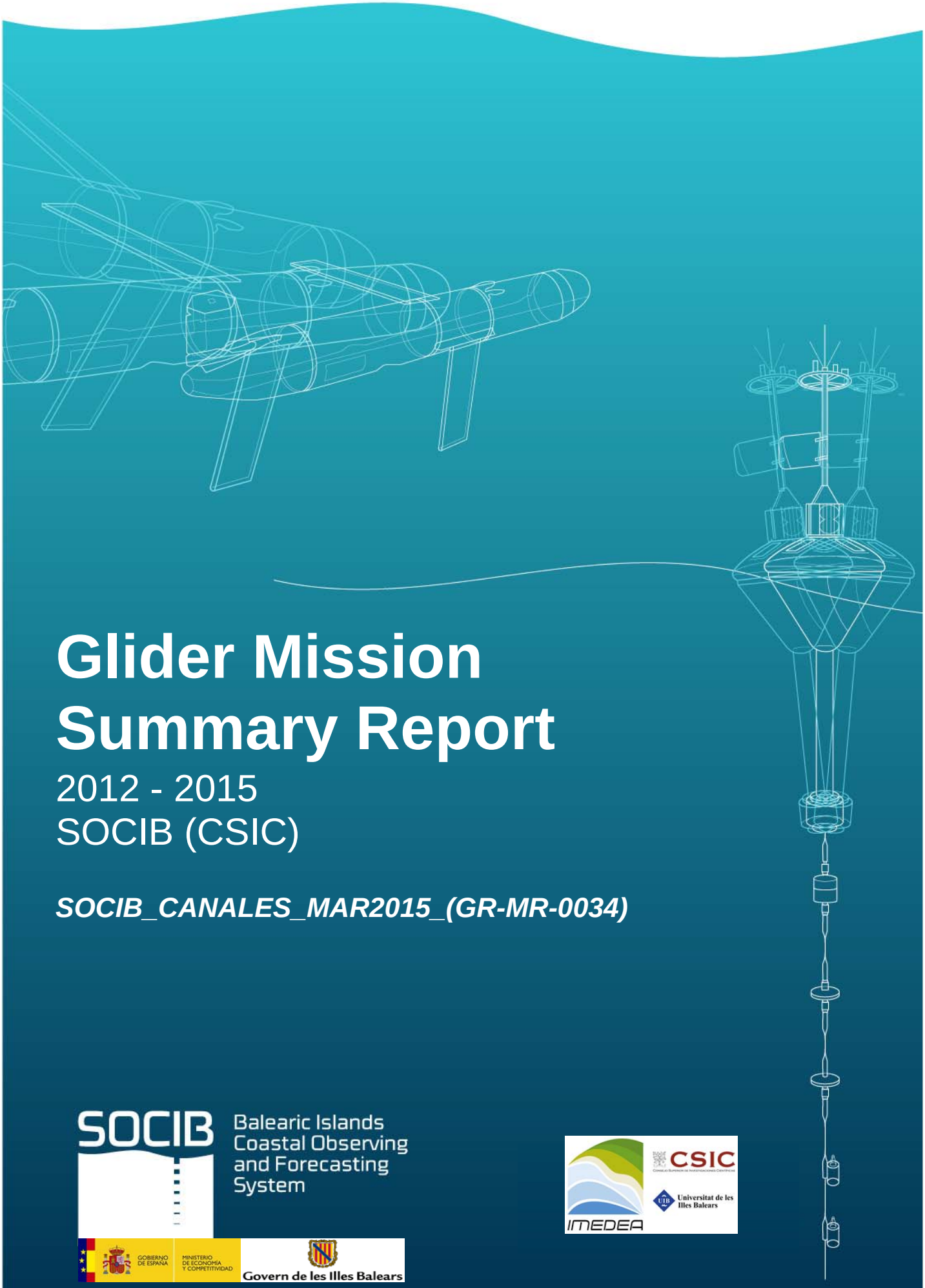

Glider Mission Summary Report

2012 - 2015

SOCIB (CSIC)

SOCIB_CANALES_MAR2015_(GR-MR-0034)

SOCIB Balearic Islands Coastal Observing and Forecasting System

GOBIERNO DE ESPAÑA · MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD · Govern de les Illes Balears

IMEDEA · CSIC · Universitat de les Illes Balears

Mission Name	*SOCIB_CANALES_MAR2015(GR-MR-0034)*		
Platform Model	*Slocum 1000 G1*		
Platform ID / Name / WMO Code	*U132 / IDEEP02 / 68966*		
Related Platforms / Missions			
Start Date	*2015-03-16*		
End Date	*2015-04-08*		
Total Days	*23*	**Total distance (Km / Nm)**	*532 / 288*
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.* *Testing SAFT Lithium Primary battery pack with in-house ballasting chassis (as well as general trial of IDEEP02 after refurbishment).*		
Scientific Sensors (name & model / serial_number / calibration date)	*GPCTD -SBE- / sn 0129 / 25-Jul-2014* *FLNTUSLC -WetLabs- / sn3710 / 06-Oct-2014* *OPTODE -Aandera- / sn 0994 / 21-Nov-2014*		
Number of Profiles	*1484 (CTD), 433 (FLNTU), 433 (OXY)*		
Significant Events	*First mission of IDEEP02 after extensive refurbishment and calibration.* *First ever G1 glider powered by Lithium batteries.* *Engineering trials (Butterfly path) performed near Mallorca prior to the beginning of the scientific sampling.* *All CTD profiles within this mission do not contain valid sci_water_pressure due to CTD's pressure sensor malfunction coming from factory re-calibration. Conductivity and Temperature measurements are alright.*		
Mission Summary	*This mission stands for the 2nd iteration of the Canales Campaign 2015, carried out by SOCIB's glider IDEEP02 (Unit 132). It is also the first one attempted since this unit returned from factory refurbishment and calibration.* *Launching operation was executed by a 2-member field-team on board SOCIB-I Professional RIB in N39.3114° E2.3169°. In trial mode, IDEEP02 was commanded to a deep-water area in where a butterfly-pattern mission was commanded around N39.5478° E1.9337°. After 2 days executing this trials, Canales scientific survey began.* *During the execution of this mission 2 Eïvissa-Valencia and 2 Mallorca-Eïvissa transects were technically completed (but not scientifically). Some defect in the CTD's pressure sensor prevented the science-logger to record precise pressure readings along with conductivity and temperature. This defect was found to have been occurring before the Glider was shipped back from factory to IMEDEA.* *Overall performance of mechanical devices was acceptable. Obviously, scientific performance was not successful although Optical sensors and SCIENCE_SUPER worked very well. There were some oddities coming from DIGIFIN, IRIDIUM and GPS. Additionally, Communications were stable and fluent allowing proper near-real-time data sending and ARGOS messaging. Navigation was correct although IDEEP02 suffered the influence of light currents in the Eïvissa-Valencia channel.* *The performance of the new SAFT Lithium batt. pack was outstanding.* *Recovery took place in N39.4673° E2.2263°, upon completion of the return trip, by the same field-team and vessel used for deployment.* *Upon completion, IDEEP02 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.* *There is work in progress to study the viability of using navigation's pressure sensor data in substitution of the missing CTD pressure sensor data.*		

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Institute	*SOCIB in collaboration of 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	*v7.14 Echo*
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	*SAFT Lithium batt. pack with custom ballast (453Ah-nominal cap.)*
Battery Consumption (Ah)	*128.815Ah (reading from 2.559Ah to 131.374Ah)*
Data Available From	*http://thredds.socib.es/thredds/dodsC/auv/glider/ideep02-ime_sldeep002/L1/2015/dep0006_ideep02_ime-sldeep002_L1_2015-03-16_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)