

Groupe hydrographique et océanographique de
l'Atlantique

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Object : « ZMED 2021 » cruise onboard R/V *BEAUTEMPS-BEAUPRE*

Reference : /

Attachment : 1 appendix.

1 TASK.

This report presents the oceanographic and hydrographic activities carried out by Shom (French Hydrographic Office) in Spanish claimed waters onboard R/V *Beautemps-Beaupré* during "ZMED 2021" cruise from 15th July to 28th July 2021.

2 REFERENCES.

All data are referenced to ITRF2014 datum, in geographical coordinates. Vertical reference is the LAT (Lowest Astronomical Tide) of the predicted model.

3 OCEANOGRAPHIC DATA.

The configuration for each recorded data is available in log files or in the header of each data file.

Along track data was acquired using:

- A hull mounted thermosalinograph ;
- Two Vessel-Mounted ADCP at 38 and 150 kHz ;

4 HYDROGRAPHIC DATA.

4.1 DATA ACQUISITION.

The survey was conducted using Kongsberg multibeam echosounders EM122.

Kongsberg SIS software has been used for multibeam data acquisition. Survey localization is given in appendix 1.

4.2 DATA PROCESSING.

Processing was done using CARIS HIPS&SIPS 11.3.5.

4.2.1 Localization and attitude.

Positioning and attitude was supplied by an inertial navigation system HYDRINS combined with GNSS system receiving corrections from Marinestar system.

Precision of the ship localization is estimated better than 0.30 m at 95%.

4.2.2 Tide correction.

Tide corrections have been applied to EM122 datasets from predicted model.

4.2.3 Lever arms.

Data has been corrected from the lever arms of all the sensors.

4.3 DATASETS METADATA

Dataset name	Multibeam System	Tide correction	Vertical reference	Positional accuracy at 95% confidence level (horizontal)	Sounding accuracy at 95% confidence level (vertical)
S202102600_EM122	EM122	YES	LAT	0.5+2% x Depth	0.3+0.8% x Depth

5 OTHER DATA.

The backscatter data coming from EM122 has been collected during the survey.

6 DATA PROVIDED.

- The present report
- Oceanographic data :
 - Hull mounted thermosalinograph in ASCII format
 - Vessel-Mounted ADCP in ASCII Format with their configuration in ASCII
- Bathymetric data :
 - Soundings in ASCII files (longitude latitude depth) based on CUBE DTM with a 70m grid cell size ;
- Other hydrographic data :
 - Magnetic data from towed magnetometer in .txt files
 - Backscatter geotiff from Kongsberg EM122 multibeam echosounder

Chief scientist Denis Créach,
Director of groupe hydrographique et océanographique de l'Atlantique
Director of the campaign

APPENDIX: SURVEYED AREA

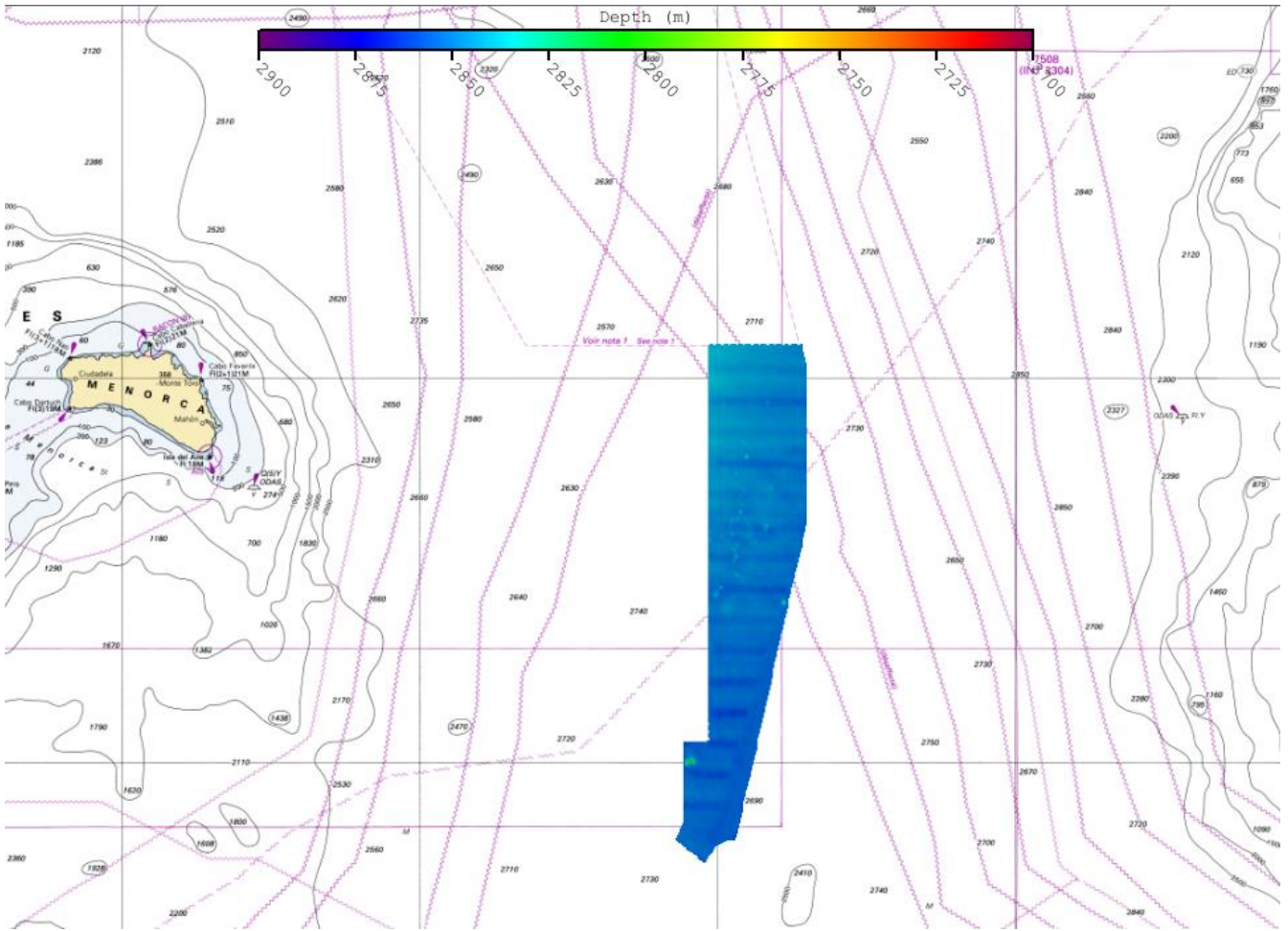


Figure 1 : MBES data acquired at the east of Menorca in Spanish claimed waters during ZMED 2021 cruise
Background: Shom chart 7014 – INT304