

Groupe hydrographique et océanographique de l'Atlantique

Followed by IETA Pierre-Antoine Dumont

Tél. +33 (0) 2 98 14 05 51

Mail: [gho-hydro-ifremer-d@shom.fr](mailto:gho-hydro-ifremer-d@shom.fr)

- Object** : « ProtevsGib 2020 » croise onboard R/V L'ATALANTE
- Reference** : Nota Verbal Num 123/18.2 del 17 de septiembre de 2020, campana PROTEV GIB 2020 Buque ATALANTE
- Attachment** : 1 appendix.

## 1 TASK.

This report presents the hydrologic data surveyed in waters under the jurisdiction of Spain by Shom (French Hydrographic Office) onboard R/V L'ATALANTE during "PROTEVS 2020" cruise from October 7<sup>th</sup> to 20<sup>th</sup>, 2020. The scientific objectives of the cruise took part in Spanish and Moroccan waters.

## 2 REFERENCES.

All data are referenced to WGS84 datum, in geographical coordinates. Vertical reference is the mean sea level.

## 3 OCEANOGRAPHIC DATA.

### 3.1 CTD CASTS.

19 CTD casts were conducted inside Spanish waters. The cage was equipped with two temperature and conductivity sensors, a turbidity sensor and a fluorimeter sensor.

Data folders are grouped by radials or single stations. For each radial, provided data are:

- BDOS folder which contains processing steps and processed data;
- BTL folder which contains environmental information at each depth where water was sampled using bottles;
- CNV folder which contains raw files converted to ascii;

- CNV\_LAD folder which contains raw files converted to ascii and resampled so as to be used to process lowered current meter data;
- DATA folder which contains raw files;
- FIG folder which contains plots of processed data;
- ODV folder which contains ascii files of processed data.

### 3.2 DRIFTERS.

The following drifters were deployed during the cruise:

- Two Arvor;
- One Provor;
- One CODE drifter with a 1 m deep socket;
- SC40: One with a surface socket, one with a 7 m deep socket, three with a 15 m deep socket, three with a 50 m deep socket, two with a 75 m deep socket, two with a 100 m deep socket and two with a 200 m deep socket.

Deployment sheets are provided in the dataset.

### 3.3 LOWERED ADCP

A dual-head Acoustic Doppler Current Profiler (Workhorse Mariner RDI 300 kHz) was mounted on the CTD cage. One head was heading toward surface and one was heading toward seabed. Configuration parameters and raw data are provided in the dataset.

### 3.4 HYDROLOGY MOORINGS

One hydrology mooring equipped with eleven SBE37 probes has been deployed. The excel spreadsheet provides the metadata. For each probe, the cnv file contains the raw measurements.

### 3.5 MOVING VESSEL PROFILER

39 radials were conducted using a Moving Vessel Profiler equipped with CTD sensor. Each radial folder contains 11 files for each oscillation.

### 3.6 SEASOAR

Three radials were conducted using a towed fish (Seasoar) equipped with CTD, turbidity and fluorimeter sensor. For each radial:

- BDOS folder contains processing steps and processed data;
- CNV folder contains raw files converted to ascii;
- DATA folder contains raw files;
- FIG folder contains plots;
- ODV folder contains ascii files with readable measurements.

### 3.7 THERMOSALINOMETER

Onboard thermosalinometer was continuously measuring surface CTD values. Dataset is provided in a single ascii file.

### 3.8 VESSEL MOUNTED ADCP

Three hull-mounted current profilers were used: one Workhorse Mariner RDI 38 kHz, one Workhorse Mariner RDI 150 kHz, and one Workhorse Mariner Sentinel V50. Ascii files are provided for each radial and each sensor.

### 3.9 EXPANDABLE BATHYTHERMOGRAPH

Sixteen XBT probes and 4 XCTD probes were launched during the cruise. Ascii files are provided, one for each probe.

## **4 BATHYMETRIC DATA.**

The survey was conducted using Simrad EK60 singlebeam echosounder. Survey localization is given in appendix 1. The acquisition parameters were set to sample the watercolumn acoustics. Bottom detection was a secondary objective.

The dataset consist of an ascii file containing longitude, latitude and depth.

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

APPENDIX: SURVEYED AREA

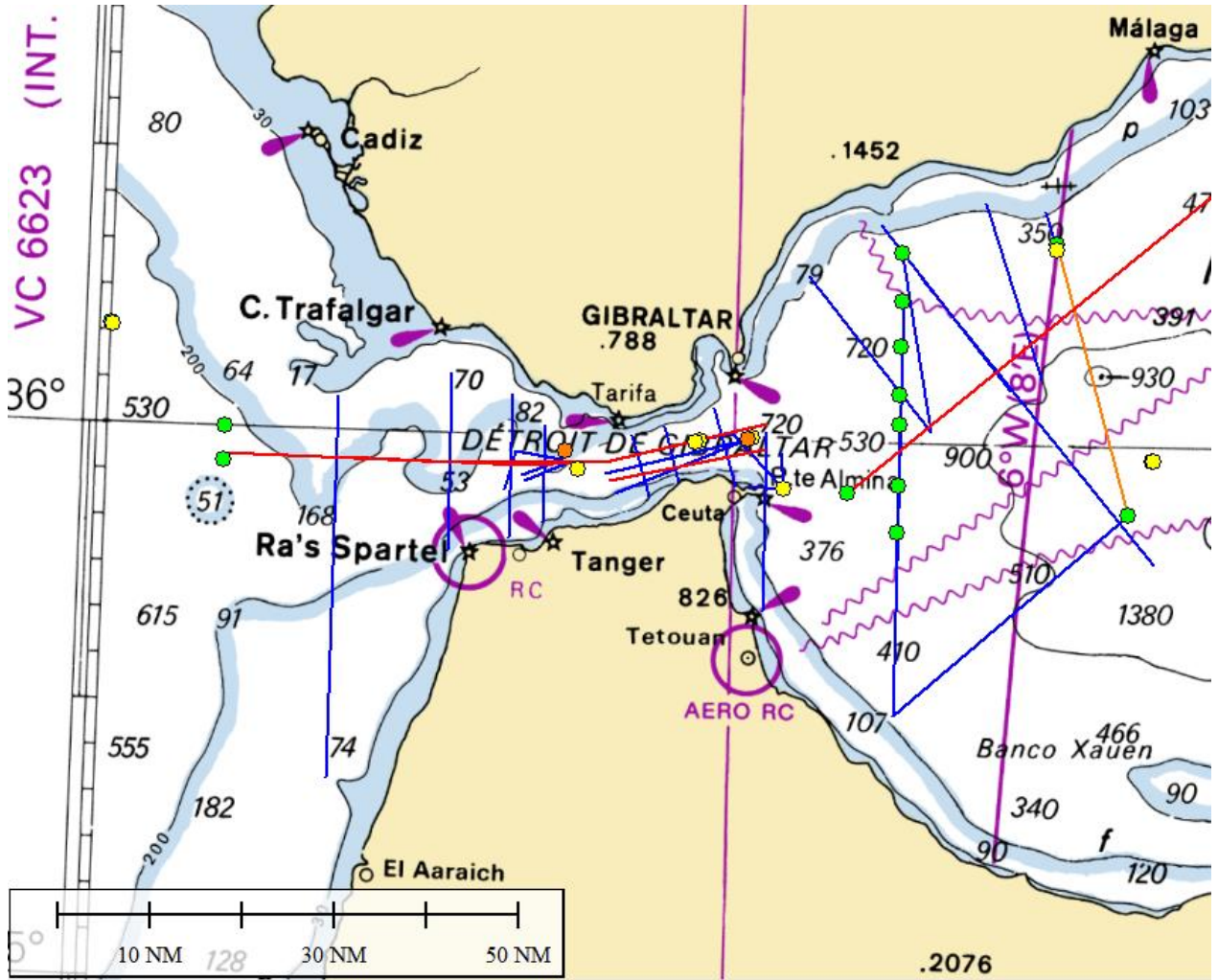


Figure 1 : Seasoar radials (red), acoustic radials (orange), MVP radials (blue), CTD casts (green dots), acoustic stations (orange dots), moorings and drifters position (yellow)

Background: Shom chart 6757 – INT301