

Groupe hydrographique et océanographique de l'Atlantique

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- Object** : « SHOMPAC 2019 » cruise onboard R/V L'ATALANTE
- Reference** : Consent letter - 19 June, 2019 – United States Department of State, Bureau of Oceans and International Environmental and Scientific Affairs
- Attachment** : 1 appendix.

1 TASK.

This report presents the bathymetric and hydrologic data surveyed in waters under the jurisdiction of the United States of America by Shom (French Hydrographic Office) onboard R/V L'ATALANTE during "SHOMPAC 2019" cruise from July 3rd to 4th, 2019. The scientific objectives of the cruise took part in French EEZ. Only en-route survey was carried out inside American EEZ.

2 REFERENCES.

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

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 thermosalinometer
- Two Vessel-Mounted ADCP at 38 and 150 kHz.
- XBT probes
- Multibeam echosounders.

4 HYDROGRAPHIC DATA.

4.1 DATA ACQUISITION.

The survey was conducted using Kongsberg EM122 multibeam echosounder. Survey localization is given in appendix 1.

4.2 DATA PROCESSING.

Processing was done using CARIS HIPS&SIPS 9.1.

4.2.1 Sound velocity correction.

Sound velocity profiles were regularly sampled (at least every 6 hours) using XBT probes. Data was corrected from sound velocity profile effects.

4.2.2 Localization and attitude.

Positioning and attitude was supplied by an inertial navigation system PHINS combined with GNSS system receiving correction from C-nav system.

Precision of the ship localization is estimated at 1.00 m at 95%.

4.2.3 Tide correction.

No tide corrections have been applied to the soundings.

4.2.4 Lever arms.

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

4.3 ACCURACY

The sounding accuracy in meter at 95% (where D = depth in meter) is better than:

Horizontal: $1 + 1.3\%D$
Vertical: $2 + 1.2\%D$

5 DATA PROVIDED.

- The present report
- Oceanographic data :
 - XBT probes in EDF format (MK21 export data file readable by a word processor)
 - Hull mounted thermosalinometer in ASCII format
 - Vessel-Mounted ADCP in ASCII Format with theirs configuration in ASCII
- Bathymetric data :
 - Soundings in ASCII files (longitude latitude depth)

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

APPENDIX: SURVEYED AREA

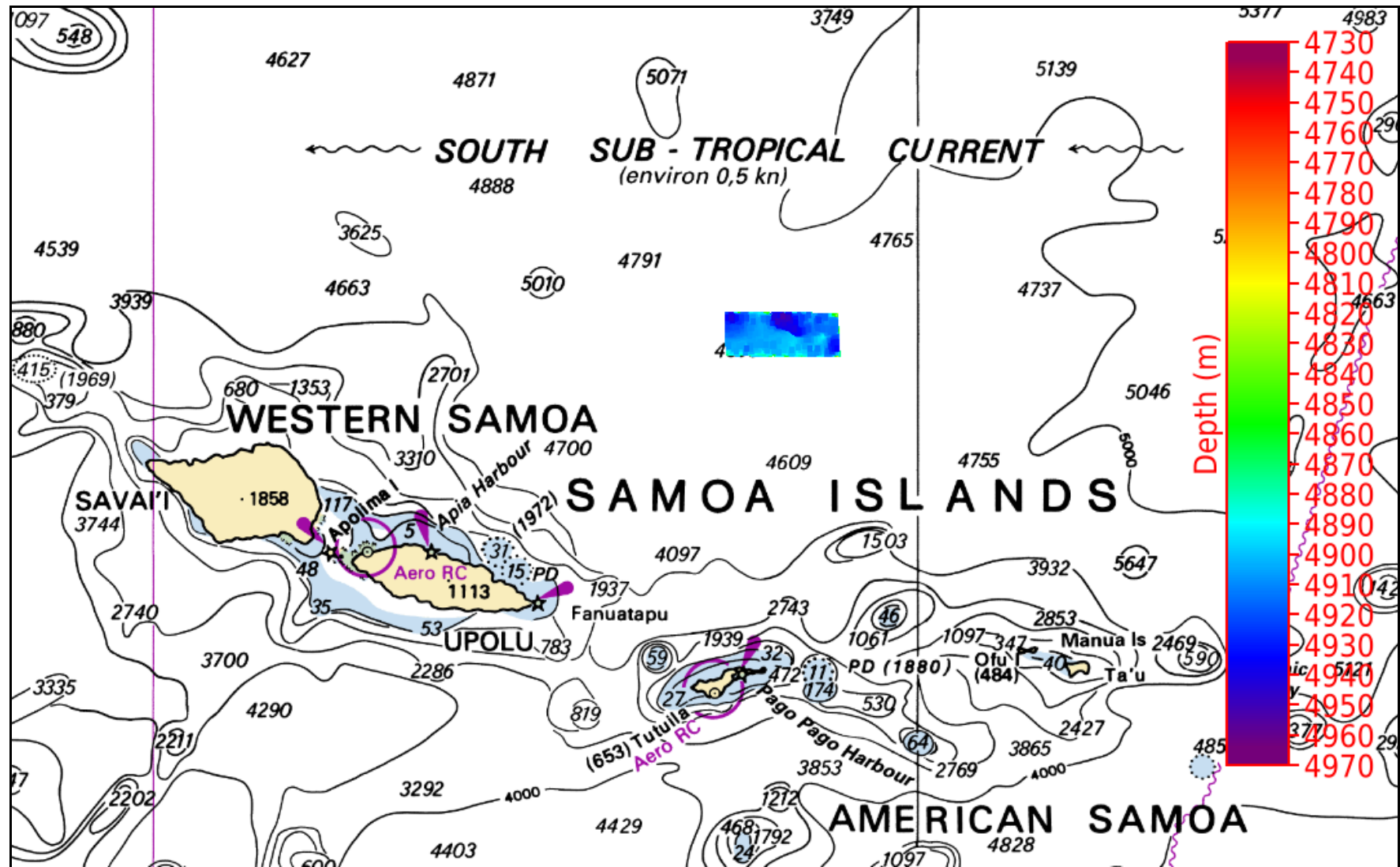


Figure 1 : MBES data acquired during SHOMPAC 2019 inside American EEZ

Background: Shom chart 6880 – INT606