

## **RV MARIA S. MERIAN – MSM141 “CAMPOSEIS”**

**November 7 - December 7, 2025, Rio de Janeiro - Rio de Janeiro, Brazil**

### **2<sup>nd</sup> Weekly Report (10. - 16.11.2025)**

This week the weather conditions have been very favorable allowing swift operations. Delays have been related to mammal detections within the 1 km exclusion area from the vessel, which have been more frequent with the PAM equipment during the night leading to air gun shut down and restart procedures. We also had some gun malfunctioning, which has been repaired as explained below.

We started our research plan on the most southern part of our research area, along line 140. 29 OBS were deployed along this line. Deployment finished on Monday the 10<sup>th</sup> of November at 7:32 am (UTC) and the air guns and PAM equipment were in the water 3 hours later. We carried the mammal observation procedure simulation and shooting of the line started. Shooting along this line was disrupted by air gun malfunctioning and mammal detection within the exclusion area. Air gun malfunctioning occurred towards the western end of the line on the 11<sup>th</sup> of November at 21:11 (UTC), on shallow waters, with 4 of the 8 air gun-array failing. Two of the air guns could be repaired and shooting continued in shallower waters with 6 air guns. During the night of the 12<sup>th</sup> of November shooting was again disrupted because of mammal sightings within the exclusion area. We finished shooting at 09:00 (UTC) of that day.

Recovery of OBS along line 140 lasted until 13<sup>th</sup> of November midnight. Unfortunately, one of the OBS instruments (GEOMAR) could not be recovered. This was the third OBS starting from the western side of the profile, which was located at (-27.7773°, -47.0745°) in 517.2 m water depth. Although the releaser mechanism freed OBS 3, the instrument did not surface. We believe a physical obstacle—likely a fishing net or similar entanglement—prevented ascent. Following the instructions of the navy officer on board a note has been sent to the Brazilian Ministry of Foreign Affairs to inform about the position and depth of the instrument, and the characteristics of the OBS instrument.

During recovery of the OBS we conducted two SVPs, in shallower, 1600 m, and deeper, 3360 m waters, respectively.

We arrived at the southern end of Line 220 on 14<sup>th</sup> of November. This line is perpendicular to the margin, and crosses the Rio Grande Fracture zone. We started to deploy instruments in northward direction. Shooting started at 12:29 on the 15<sup>th</sup> of November and will last until at least 09:00 (UTC) tomorrow. During the shooting of this line we have had so far 3 mammal detections which have led to air gun shutdown and a delay in the program of around 6 hours.

The OBS teams have successfully extracted the data from line 140, and the scientific team has begun analyzing the recorded sections. Scientists from ON have been liaising with the onshore team, and the first onshore station has been plotted. Bathymetry data has been downloaded, and initial plots and quality control of the OBS seismic records are currently in progress.

Greetings on behalf of the cruise participants,

Prof. Dr. Marta Perez-Gussinye  
MARUM, University of Bremen

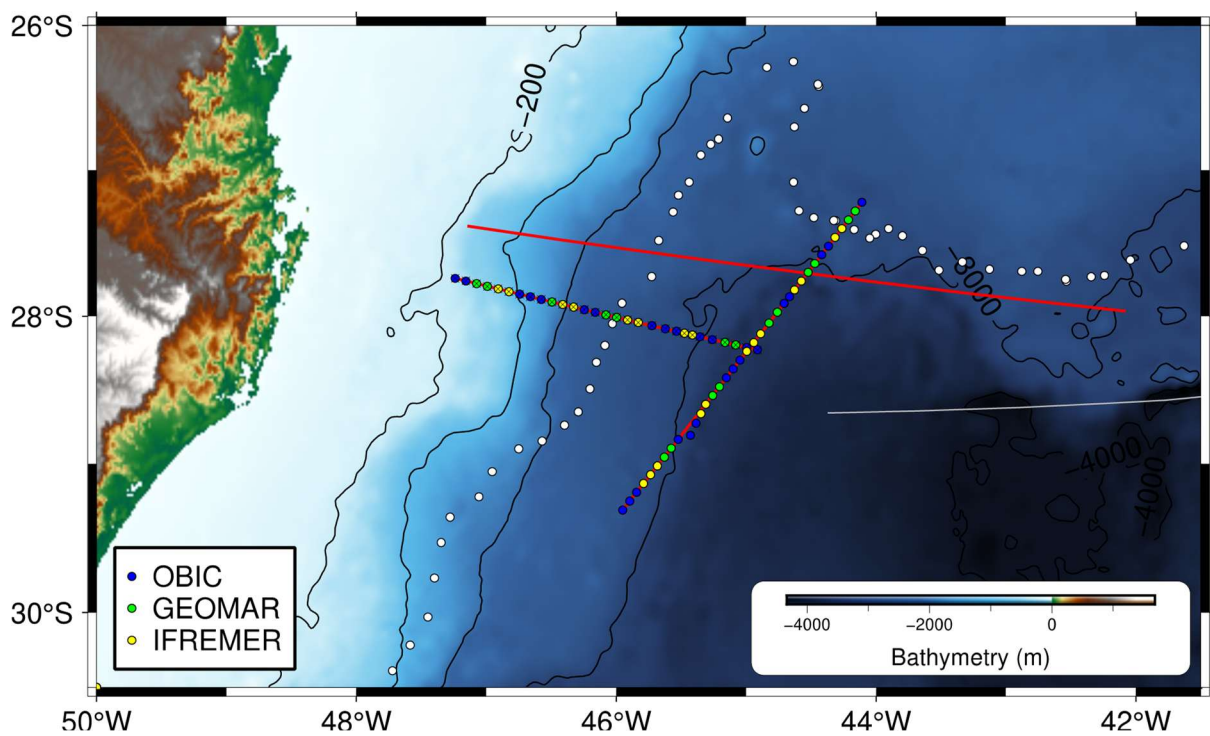


Figure 1: OBS stations along line 140, color coded by institution. All OBS along this line have been already recovered (marked with black cross). Shown are also OBS so far deployed along Line 220. White dots are a current estimation of the location of the COT.

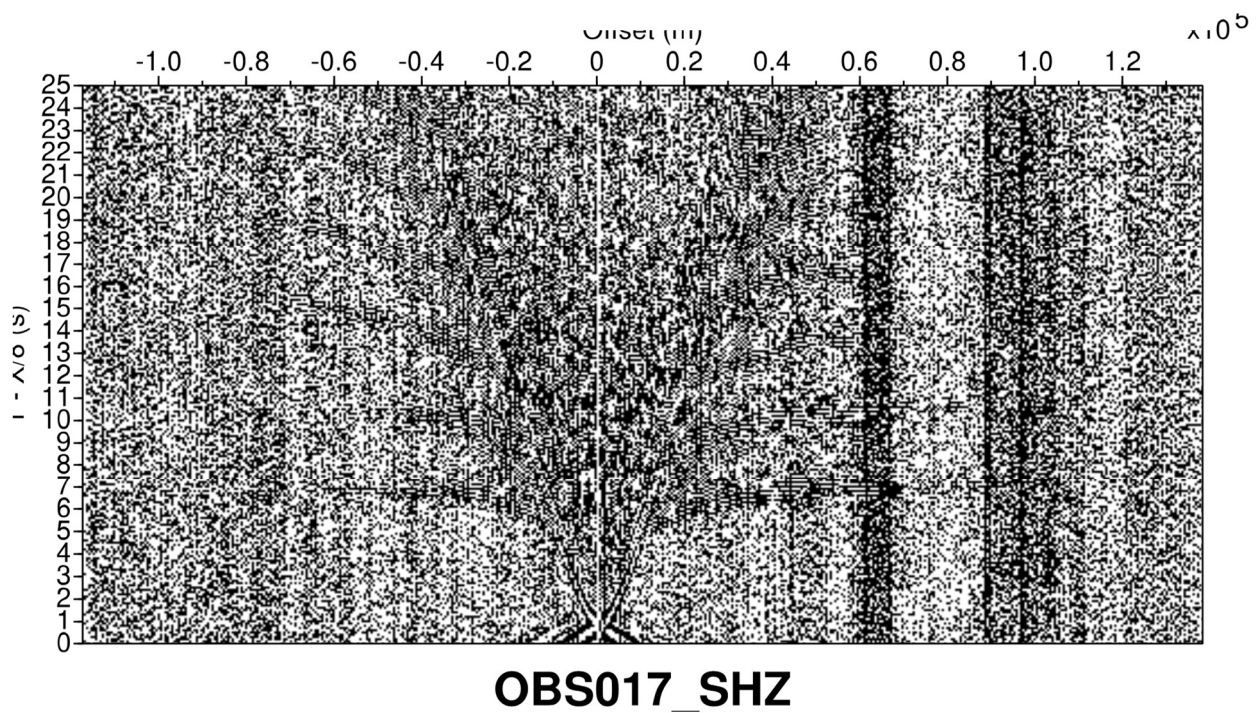


Figure 2: Record section of OBS 17 along profile 140.