

## MSM140 – 3. Weekly Report

Hampered by wind and waves!

Unfortunately, our hopes for good weather that we had a week ago were not entirely fulfilled. On Monday, under still calm weather, we finished our electromagnetic experiments at Skoll High. Around 17:00 the CAGEM sender was safely back on deck and tied up before conditions rapidly deteriorated. During the night we could only run bathymetric and sediment echosounder profiles. On Tuesday we recovered the OBS and on Wednesday the OBEM, each time followed by bathymetry and Parasound during the night. A first analysis of the OBEM data showed that the experiments were a success, and that the required data were properly recorded (Fig. 1). As mentioned in a previous weekly report, the OBEM data will ultimately allow determining the conductivity of the seafloor, but this requires additional processing that will be carried out upon our return to the institute.

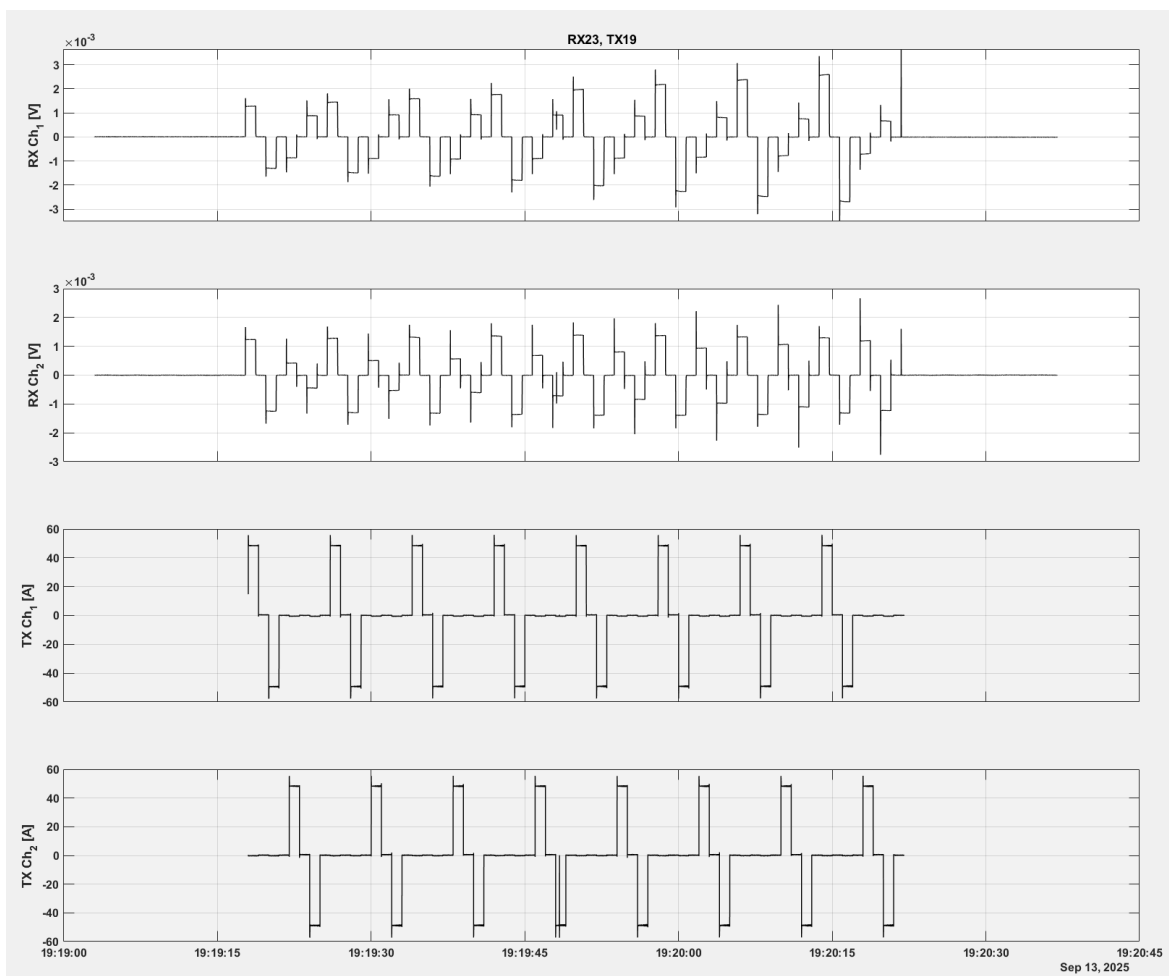


Fig 1: Electric pulse emitted by the CAGEM sender (TX, lower panels) and the corresponding signals recorded by one OBEM station (RX, upper panels).

By Thursday the wind finally calmed down to allow seismic work again. However, due to a strong atmospheric depression north of our working area we were facing high swell of up to 3 metres wave height that prevented the safe deployment of the trawl doors (see figure in the first weekly report). Consequently, we changed the P-cable seismic system back to a 2D configuration and acquired 2D seismic data of excellent quality (Fig. 2) until Saturday evening, both around ODP site 642 and site 643 that is located further to the Northwest. We also ran a profile between the two sites allowing for a better correlation of the drill holes than the existing legacy lines dating from the 1980s. Saturday evening, after 55 hours of continuous recording, streamer and airgun were back on deck, and with winds of force 8 we slowly sailed back to site 643, where we actually wait for improved conditions to finally start our 3D-seismic work next week.

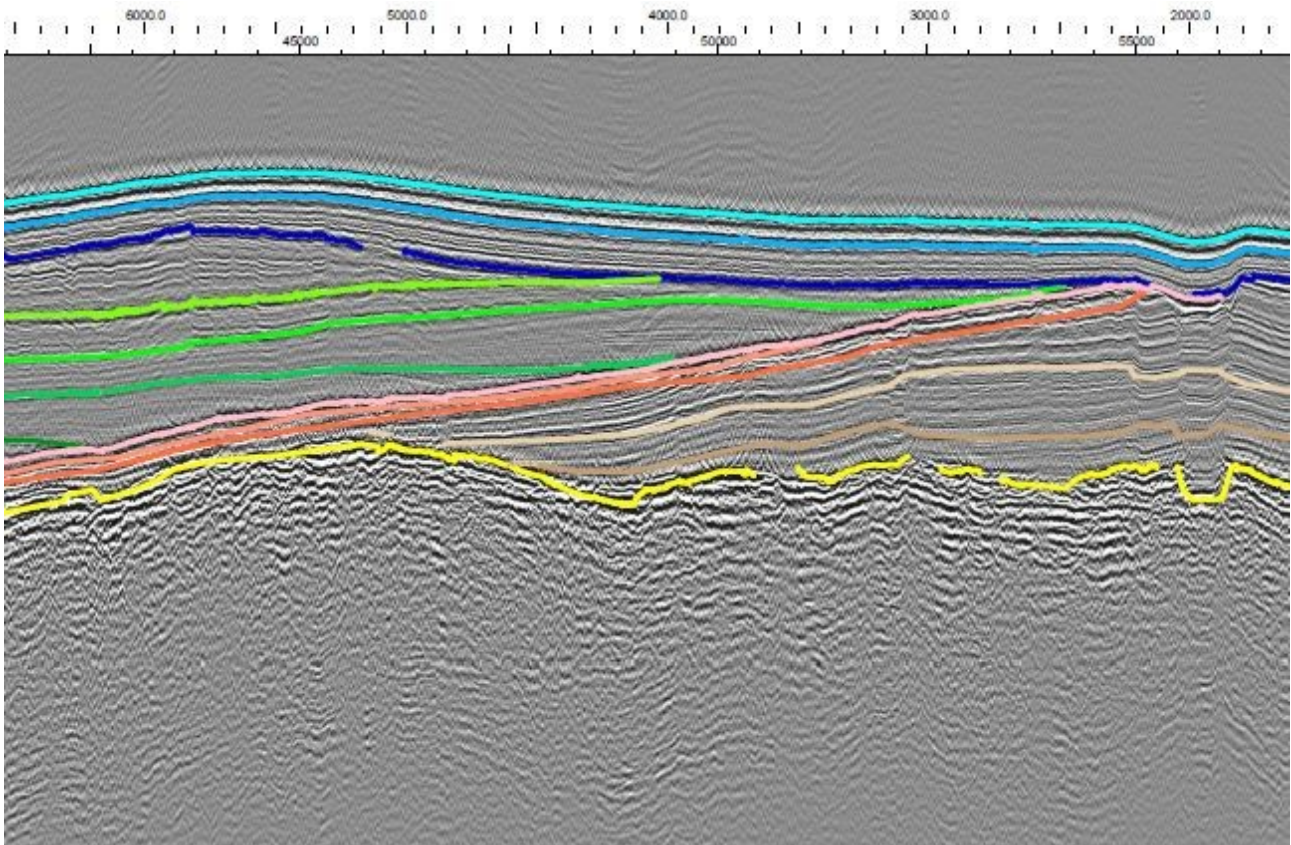


Fig. 2: 2D-seismic profile with a quick, preliminary seismo-stratigraphic interpretation.

Despite adverse conditions at times, a rather successful week lies behind us. However, we now need soon some calm weather conditions for our 3D-seismic work that constitutes the main part of the remaining work programme.

The spirit onboard remains excellent and everyone is positive that we will continue working under good conditions in the remaining weeks.

On behalf of everyone onboard I am sending best regards,  
Ingo KLAUCKE  
Chief Scientist MSM140