Eurofleets+ Cruise RV Belgica Cádiz – Portimão, 01.-08.06.2022

I joined Eurofleets+ as an intern on a one week cruise from Cádiz, Spain, to Portimão in Portugal on the RV Belgica. Though never being on such a ship before I felt well prepared thanks to the many information I received in advance and all the questions I could ask.

The objective of the cruise was to collect geophysical subsurface data and if possible cores to detect tsunami deposits in the Algarve and eventually look for a possible correlation with previously collected onshore deposits. Due to the similarity between the research aim as well as the methods applied during the cruise and the methods and prospective of my PhD project the cruise provided me with a unique insight in how to collect offshore geo(physical) data.


The RV Belgica in the harbour in Cádiz

Joining the cruise in Cádiz was simple as the big white Belgica was easy to spot in the harbour and the ship crew as well as the scientific crew welcomed me warmly. Despite knowing beforehand that the Belgica is very new I was still positively surprised by the comfort (gym, lounge room, private cabins with private bathrooms, very good and a lot of food, mostly working internet) and the modern and nice interior. The start on the ship was still a bit confusing. Despite getting an extensive tour after boarding, being told from the crew that it is a “small ship” and everything being nicely labelled, I ended up more than once on the wrong deck. However I always quickly found my way back to where I actually wanted to go – after all it is just a “small ship”. Luckily, these slight diversion only lasted the first days and would probably have past faster if I did not had to stay outside on the back deck most of the first day to keep my seasickness at bay – just like most members of the scientific crew. Thankfully, most of the first day was only transit to the research area and we did not have to work yet.


Sunrise along the Portuguese coastline

Work and life on board was bound by a regular schedule. As we continuously recorded data for 24h the scientific crew worked all around the clock in a shift system à two 4h shifts per day per group. I had the 4-8 shifts (in the morning and the afternoon) this meant for me waking up at 3.30 am and going to bed just after dinner at 8.30 pm. Despite

The "sparker" being taken out of the water

these hours being rather unusual for me they worked better than expected and the early shift at least gave us the benefit to enjoy the beautiful sunrise everyday.

During our shifts we had to monitor the data collection continuously, make sure all the systems were working fine and protocol the process of data collection regularly as well as any unusual circumstances e.g. a start of a new profile or when a diversion from the profile was necessary due to busy fishing vessels getting in our way. Sometimes manual labour was necessary as well as the “sparker” – the source for our seismic signals - had to be taken out of the water every 12h and the individual sparks needed to be cut. The sparker also needed to be taken out of the water when a CTD measurements (Conductivity Temperatur Depth) were taken which provided us with valuable information about the water conditions and this way helped adjust our measurements. The CTD was carried out by the ship crew as one of the large cranes on the ship was needed for it.

After or between our shifts we had some free time in which most people caught up on some sleep, enjoyed the food or cake in the mess – there was always food in the kitchen – joined the people on shift or just enjoyed the good weather on the back or front deck or even the view from the crows nest. If we asked nicely we were also allowed to have a look at the bridge and once we got a guided tour through the lower decks and learned a lot about the technique on board. This way we also got a good overview and idea about the non-scientific life and work on the vessel.

The CTD probe is being lowered into the water by one of the ship cranes.

Generally the cruise went really well and we were lucky with the weather – despite quite a bit of swell on the first day – and the data sets look really promising. Still, despite perfect planning in advance not everything always works out as planned and so I did not just learned a lot in terms of data collection, monitoring and interpretation, but also on how to be flexible and adjust plans on the go and still make the cruise a success.

All in all I am really thankful to Eurofleets+ to be given this opportunity and I am sure all the experiences collected on board will help me a lot for my future research career.

Lauretta Kaerger, University of Florence