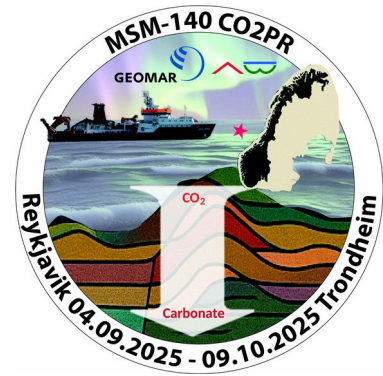




MSM140 – 5. Weekly Report

A storm, a storm and yet another storm!

At the beginning of last week it became clear than filling our 3D-seismic cube was getting unrealistic with the weather forecasts at hand. After consultation with the project leader onshore we consequently decided to prioritise those methods that were most promising to be successful. On Monday, however, scientific work was barely possible. During the day we could acquire a sound velocity profile with the ship's CTD that showed a net increase of the well mixed surface layer from 25 metres down to 45 metres showing the effect of stormy conditions during the last days. We then ran additional bathymetric and Parasound profiles to extend the coverage of our bathymetric map (Fig. 1). The bathymetric data acquired during cruise MSM140 show yet again that the upgrade of the multibeam echosounder Simrad EM122 to EM124 still leaves space for improvements.

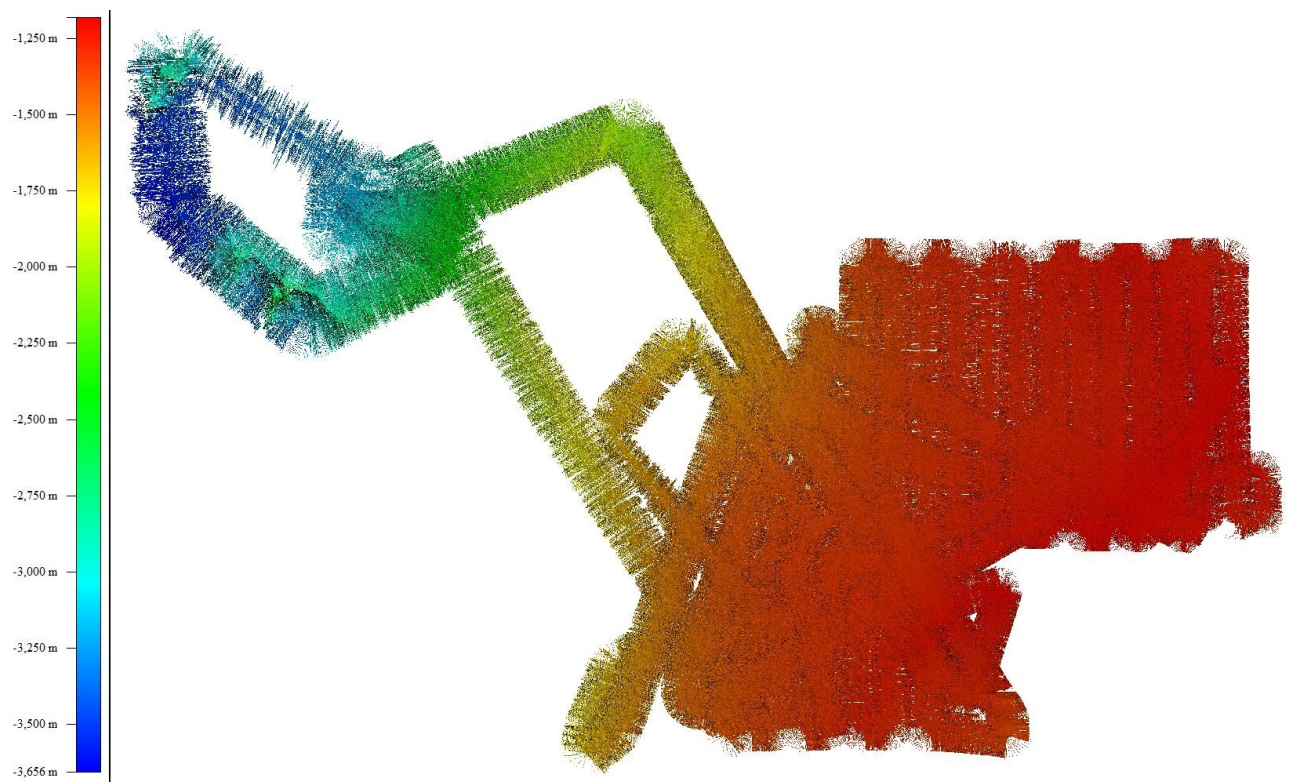


Fig. 1: Bathymetric map showing the data acquired MSM140 until Sept. 30.

The next morning, on Tuesday, the sea had calmed down sufficiently to recover the remaining OBS and the OBEM, the latter of which were re-deployed right away at ODP site 642 for a second and final electromagnetic experiment. The CAGEM sender had a few technical issues, but the experiment was eventually successful. Following the CAGEM measurements we recovered the OBEM and deployed eight OBS before weather conditions turned nasty (wind gusts up to force 10). Thursday afternoon and during the night work on deck was impossible, but we could use the time to convert eight of the OBEM into OBS that were deployed the next morning with decreasing wind.

We then acquired crossing 2D-seismic profiles over the OBS, this way also providing signals for the OBS. Airgun and 2D-streamer were back on deck around 02:00 on Friday morning, and we immediately started recovering the OBS. However, with three instruments remaining on the seafloor, we had to stop all operations around noon. Friday afternoon and evening saw wind gusts up to force 11 (105 km/h), and even Saturday was no relief as easing wind ("just" force 8) was accompanied by increasing significant wave heights of up to 6 metres. Sunday morning we could finally recover the remaining three OBS and right now take advantage of relatively calm conditions to acquire additional 2D-seismic profiles.

Under the given circumstances we made the best out of the situation thanks to the excellent cooperation between scientists, master and crew. Weather conditions were challenging to say the least, and we will likely not see calm seas before being back in port.

Everyone on board is doing fine and in a good mood despite relentless movements of the vessel, but one can sense a certain longing for port here and there.

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