



**MSM68**

**KNIPAS**

**Knipovich Ridge Passive Seismic Experiment**

**Longyearbyen 6.10.2017- Emden 20.10.2017**

## **2. Weekly report**

The second week of our cruise started very much like the first week ended: recovering OBS. 14 OBS we had already recovered, another 13 waited to be collected at the beginning of this week. Meanwhile it became clear that weather conditions would remain stable until Wednesday afternoon. Therefore we started around dawn every morning to acoustically range the OBS and recover them. For the following stations we decided against the time consuming triangulation that requires stopping of the vessel at three locations around the presumed OBS position. Only when it became obvious that recovery proceeded fast enough such that we would achieve our goal for the day, we recommenced ranging. In this manner we collected 6 OBS on Monday, another 5 on Tuesday and the remaining 2 on Wednesday when winds had already perceptibly increased. However, the rougher sea and stronger winds posed no problem to the ships' crew on bridge and deck. From the moment, when the OBS theoretically appeared on the sea surface, until sighting and subsequent manoeuvring of the ship and fishing of the OBS often only as little 10 minutes elapsed but never more than 22 minutes. We greatly profited from the experience and help of the crew and would like to use this opportunity to cordially thank them for their continuous support.

We spent the darkness hours and the windy days from Wednesday afternoon until Friday afternoon with further mapping of Knipovich ridge in southerly direction. Our cruise track in Figure 1 nicely tells that we switched from erring through the rift valley in search of OBS to systematically covering the area with hydrosweep tracks, side by side such that the footprint of the hydrosweep beam just overlaps on the seafloor. On Wednesday afternoon the science program terminated and we started our way home with a little detour to deploy one more Argo float. Since we have left the survey area, the North Atlantic has been showing its autumn moods with waves and winds of 7 Bft and more that would have made any attempts at recovering OBS really difficult. We once more realized how lucky we have been with the weather so far and we celebrated the end of our science mission with a cozy evening in the bar.

We are now returning back home with all our instruments – most of them having worked without problems – and in addition we produced a wonderful map of this magnificent underwater landscape. We therefore gratefully look back on a most successful cruise that surpassed our expectations and we now look forward to start data processing once we get home by the end of next week.

With best regards of the entire science team that enjoyed the time on board Maria S. Merian,

Vera Schlindwein

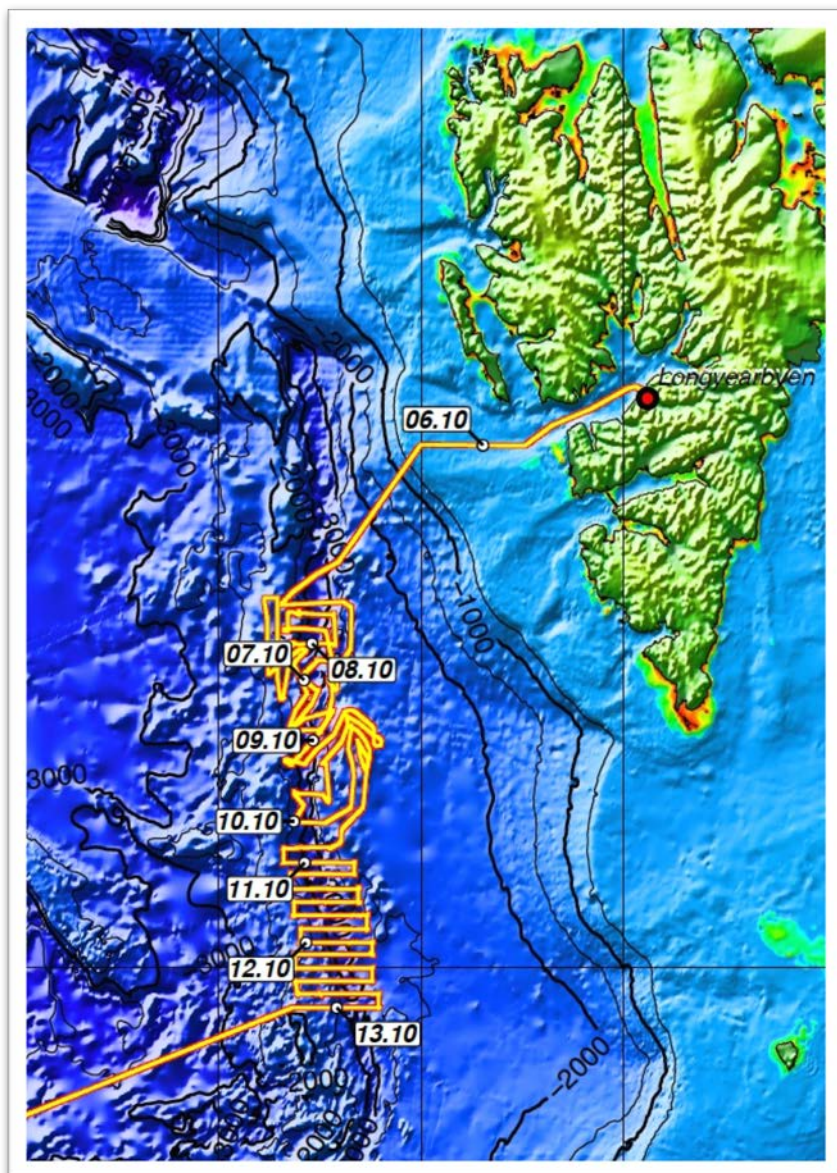


Figure 1: Our cruise track through the survey area