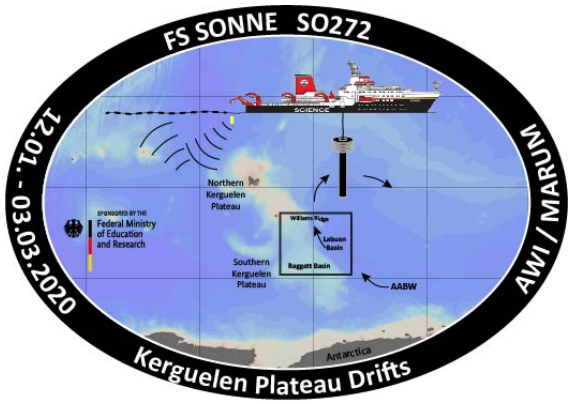
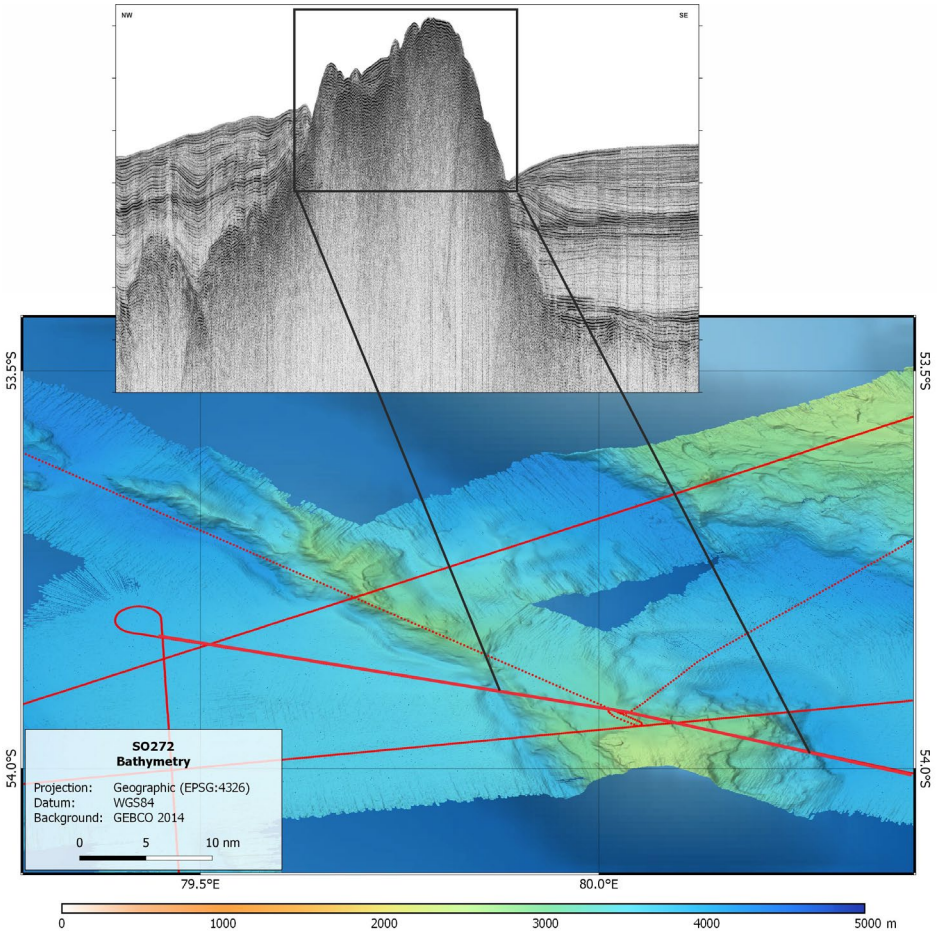
Expedition SO 272
Post Louis – Cape Town

Weekly report No 4
3. February – 09. February 2020



During this fourth week of our expedition, we initially further concentrated on the northern Labuan Basin. We then slowly migrated south towards the central Kerguelen Plateau still collecting seismic data to study the sedimentary structures.

There are not only reflection seismologists on board. We also collect data to image the morphology of the seafloor. This information is necessary to evaluate whether structures images in seismic data are small- or rather large-scale features. The seismic profile shows a hill. The bathymetric data show the spatial structure and extent of the hill, which appears to be related to another hill in the North. Those hills consist of hard rock, most probably of magmatic origin. For us those hills are important because they constitute obstacles for the flow of water masses and currents. Very often one can identify moats at their flanks, e.g., on the right hand side of the hill. Water masses and currents flow in those moats.



On Friday, we celebrated our half time party. Amazing that half of our expedition time has passed already. Since the temperatures are so low we clinked glasses with mulled wine and hoped for a successful second part as the first one has been. Promptly, it started to snow! We really are quite far south…

We send home cheerful greetings.

Southern Indian Ocean, February 9 2020, 58° 18.93’ S / 79° 19.92’ E

Gabriele Uenzelmann-Neben
Alfred-Wegener-Institut, Helmholtz-Zentrum für Polar- und Meeresforschung (AWI)

https://www.awi.de/en/science/geosciences/geophysics/research-focus/gateways-of-the-southern-ocean.html under ***Southern Indian Ocean circulation is archived in Kerguelen Plateau structures***

https://www.awi.de/forschung/geowissenschaften/geophysik/expeditionen.html