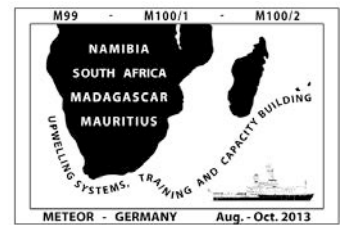




# M100/2

(4.10.2013 – 21.10.2013)



## 1. weekly report from 6. Oct. 2013



View from METEOR departing Walvis Bay, Namibia. (Foto: Martin Visbeck)

The M100/2 voyage started on Friday 4<sup>th</sup> of October at 09:30 from Walvis Bay, Namibia. In addition to a number of scientific objectives, the research cruise has a training component. Off the Namibian coast, our study goals are similar to the previous two voyages, and the data we collect would complete the existing dataset. In particular, we are interested in understanding the oceanographic setting of the upwelling system, including its filaments and small-scale structures. Moreover, we are interested in the distribution of trace gasses ( $\text{CO}_2$ ,  $\text{CH}_4$ , and  $\text{N}_2\text{O}$ ) and the vertical distribution of planktons and their reaction within the oxygen minimum zone,

underneath the surface mixed-layer, are of interest.



Deployment of a Multi-Net to collect plankton at different water depth.

(Foto: Martin Visbeck)

We are physical, chemical, and biological oceanographers from Kiel, Hamburg, Bremen, Bergen (Norway) and South Africa. Additionally, a total of 20 bachelor, master and doctoral students from Germany, the USA, Namibia, Madagascar and South Africa form part of the scientific contingent on board. Within small groups, the students tackle their own research questions, and the results will be presented at the end of the voyage.

We reached the first station on the Namibian shelf a few hours after departure, where a CTD and a Multi-Net casts were undertaken. The wind strengthened overnight, and



*Victor spult Kabel auf die 'underway' CTD am Heck der METEOR.  
(Foto: Martin Visbeck)*

in the morning reached Beaufort strength 7. After breakfast, we launched the U-CTD, despite the increasing winds. The U-CTD is an underway system that is deployed at the aft of the vessel to measure pressure, temperature and conductivity in the upper 200m. We were pleasantly surprised at how well the instrument performed despite the tumultuous sea conditions.

By the afternoon, two successful CTD and Multi-Net casts were undertaken, in addition to U-CTD casts during transit. The wind continued to strengthen, and exceeded Beaufort 8. This hampered the further deployment of instruments and forced us to change

plans and abort the planned zonal section. Since then the progress towards Cape Town, against wind and waves, was slowed down. Late that evening, due to the deteriorating weather conditions, we were obliged to also halt any further U-CTD casts.

Instead, we concentrated on the post-processing and analysis of data obtained thus far. In parallel, students met within their chosen small groups to discuss their projects, and prepared some first results.



*Maggie pickt Plankton aus den Netzfängen.  
(Foto: Martin Visbeck)*

The mood on board is excellent, despite the lousy weather conditions. The collaboration with the captain, Michael Schneider, the bosun, Peter Hadamek, and the entire crew of the METEOR has been commendable.

Greetings from 26°S, 12°W from,  
Prof. Dr. Martin Visbeck and the entire crew of M100/2.