



**TRR 181 Expedition
SONETT
RV Meteor M180
23.02. — 14.04.2022
Montevideo — Cape Town**



6. Weekly report (28.03.-03.04.2022)

This week was spent with several time series stations, each 36 hours minimum to observe internal wave energy fluxes within one of the tidal beams emanating from Walvis Ridge and their potential modification by the Agulhas rings. The first of these stations was carried out within a ring, three more stations to the east of the ring, along a line perpendicular to the tidal beam. This setup will hopefully show us firstly, if there is a change in the wave-induced modal structure of the stratification and the velocity field by the ring, and secondly, if passing the ring leads to a lateral refraction of the tidal waves. The last part of this experiment will be a time series station upstream of the ring, to capture the state that is unaffected by it.

Before we can complete that, however, we had to head south again, because one of the gliders reported a technical problem. Since there was a window with very calm weather



Sequence of glider recovery (clockwise): 1) Zodiac is lowered from the Meteor; 2) Glider in the water awaiting retrieval; 3) Glider being towed onto zodiac; 4) Zodiac with glider back at the of the Meteor. Photos: E. Breuning.

predicted ahead, we decided to end its mission and recover all the gliders on Sunday. The weather forecast proved to be true, and on Sunday we set out to recover all three remaining glider in beautiful sunshine with calm sea. The first of them was already swimming beside the ship during breakfast, and was back on the deck of the Meteor after a short ride with the zodiac. The second followed soon after, and as the time of this writing, we are in transit to the position of the third one whose mission has lead it further to the west.

Earlier this week, in between the time series stations, we had a compulsory safety drill on Thursday. After assembling at the muster station on deck, several volunteers put on the survival suits and got to jump into the water basin to try them out.

Kind regards and greetings to all friends, families and colleagues on shore from the scientific party of M180,

Maren Walter
(Bremen University)



The survival suits are being tested.
Photo: M. Sass.