

R/V METEOR Cruise M165 (GPF 18-1_81) 03.08.2020 - 06.09.2020 Emden - Emden



1st weekly report, 3rd – 09th August 2020

Against all odds it has become real; we are on our way south to perform investigations in the upwelling area off Cape Blanc (NW. Africa).

We, that are 15 students, PhD students, postdocs, technicians and PI's from the MARUM – Center for marine environmental sciences at the University of Bremen, Alfred-Wegener-Institut-Bremerhaven and the University of Oldenburg. We scientifically cooperate within the MARUM's Cluster of Excellence > The Ocean Floor – Earth's Uncharted Interface. To be more precise; our research forms part of activities in the Research Unit "The ocean Floor as receiver" where we investigate the production, transfer and transformation of marine organic matter in the water column and upper sediments.

The current expedition M165 (GPF 18-1_81) should have been taken place in April, but the worldwide outbreak of the Corona virus came in between and our cruise (initial name M163) had to be cancelled. Fortunately, because of the excellent cooperation and flexibility of the employees of the Gutachterpanel Forschungsschiffe (GPF, German Science Foundation), die German Research Fleet Coordination Centre (LDF) and the shipping company Briese Research a possibility was created to execute part of the in initially planned research activities in Corona Pandemic times.



Tugboat towing the R/V Meteor.



White cliffs of Dover.

For safety reasons, we are only half of the amount of scientific crew members that should have joined the cancelled cruise M163. Nevertheless, we managed to adapt our initial scientific program such that it will be feasible to execute the majority of the research activities initially planned. We are very motivated to bring as much as possible high quality samples home for the scientific crew members that were not able to join this special cruise.

Currently we are on a transit to our first station in the upwelling region off Cape Blanc where the MARUM executes a long-term monitoring program since 1988. With help of moored sediment traps the relationship between changing environmental and climatic conditions and (inter-)annual variability of the marine particle flux reflecting upper ocean productivity is monitored. The Cape Blanc upwelling region is among the most productive marine regions world-wide as both the upwelling of nutrient rich deep waters as well as trace element loaded Sahara dust ventilate the upper ocean waters in the region.

Apart from servicing our moored sediment traps that will ensure that the current existing "Corona sampling gap" won't increase, we plan to study the production, lateral and vertical transport as well as alteration of marine organic matter in the coastal upwelling cells.

So here we are, sailing south on the R/V METEOR. Happily, we all could embark the R/V METEOR after being tested negatively on the Corona virus. Prior to the test we passed two weeks of self-quarantine followed by several days in a quarantine hotel. After being "released" from our quarantine-hotel rooms and being transported covid-safe by bus to the R/V Meteor, we experienced a warm welcome by Captain Detlef Korte and the ship's crew.

On Monday morning 9 o'clock the lines were released, we waved a goodbye to the RV SONNE and a tugboat towed the Meteor out of the harbor into the sluice that connects the Harbor of Emden with the Wadden Sea. After entering the North Sea, the days were filled with unpacking, installing our equipment as well as technical and scientific briefings. So far we crossed the English Channel, the Bay of Biscay and the Atlantic Ocean off Madeira with beautiful weather, blue sea and blue sky that is sporadically decorated by white clouds. For the next days, we will be hiding steadily south passing the Canary Islands to reach the "upwelling region" off Cape Blanc presumably Wednesday morning.

We send the best wishes from a blue ocean and take this opportunity to especially thank the German Science foundation, the German Research Fleet Coordination Centre, the shipping company Briese Research and the crew of the R/V METEOR for all the support they have given in the course of preparing for this cruise.

On behalf of all cruise participants,

Karin Zonneveld MARUM, University of Bremen