

2. Weekly Report - cruise MSM74



A very busy week has past us. With the arrival at the first mooring operations area off the coast of Labrador, a total of 18 mooring movements were carried out over the last week. This means winding 30 km of steel cable, handling more than 150 instruments, using 600 shackles and rings, and lowering more than 7,000 kg of anchor weights to the seabed. Instruments data from 2 years of deployment was recovered, new batteries installed and devices were set up for the new deployment during MSM74.

It is easy to imagine that great organizational oversee and a lot of care is required in this work. This overview retains the mooring team of GEOMAR, consisting of Christian Begler, Wiebke Martens and Rene Witt. All three have had some short nights in the past week, while getting the material back on board safely after two years of deployment time, refurbishing devices and ultimately entrust them to the sea again.

The three had tremendous support by 7 students from Germany, France and Canada as well as from our two British colleagues, whose moorings off the south-east coast of Greenland will be recovered at a later stage of the cruise.

Even if the science team does a great job - nothing would work without the team on deck of bosun Norbert Bosselmann. This team did once again an excellent job last week, supporting us in all matters.

Our former efforts from 2 year ago, have paid out and this year's data yield is, after first sighting, very good. Only a few instruments had problems. Encountered problems include sensor failure, water leaking into the housing, and battery failure.

We try to make the best out of the kind of favourable weather we have. Of course, "favourable" in this region has nothing to do with the summer conditions in Germany, it means here: no severe storm and no complex waves and wind directions that make the optimal positioning of the ship for the navigators on the bridge difficult. However, we work here in the snow, drizzle and cold wind, that blows over from Greenland. Striving over 3°C to 4°C surface water does not help much in "heating" the air.

Another group on board that often has to work at night is the team around Dariia Atamanchuk. The biologists and biogeochemists from Dalhousie University in Halifax,



Credit: P. Holliday

Mooring recovery in the central Labrador Sea

Canada, collect samples that are measured partly directly on the ship, such as the dissolved oxygen content in seawater, but mostly prepared for analysis in the home laboratory.

This group also carries out experiments on board: Debany Fonseca has transformed the scientific refrigerator (+6°C) into a laboratory. He uses



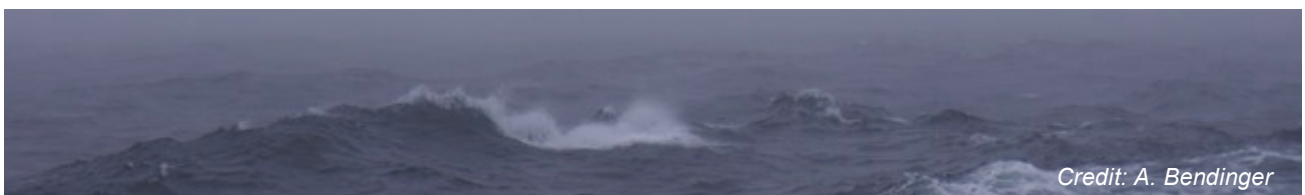
Credit: J. Karstensen

A view at the chemistry laboratory during Maria S Merian cruise MSM74

"incubators" – the large glass bottles are filled with seawater that is taken from different depths with the help of the CTD rosette. In the cold room, he is testing the reaction of the microorganisms which are living in the samples for changes in the supply of nutrients and the availability of light. Then they are filtered with very fine mesh size to catch the microorganisms after the experiment and then to be snap-frozen at -40°C.

Despite the hard work, there is still time for a break, such as the obligatory machine tour where the 2nd engineer David Woltemade introduces the participants to the fascinating world of motors and pumps under the main deck. The menu or a common "movie night" provides for further variety.

Greetings still from the Labrador Sea,
Johannes Karstensen for the cruise participants of the MSM74



Credit: A. Bendinger