RV Maria S. Merian

Cruise MSM-73

06.04.-22.05.2018

Cádiz – St. John's

6. Weekly Report

07.05.-13.05.2018

In the 6th week of cruise MSM-73 we continued our work at the eastern exit of the Labrador Sea. We proceeded from the coast of Greenland along 48°W to the south, continued on Monday, 07.05.2018, on an easterly course and headed from Tuesday, 08.05.2018, on along 44°W northwards to the southern tip of Greenland (Kap Farvel). Most of the time we had good weather and sea conditions so we could safely deploy the last two Argo floats. We also took advantage of the calm weather to bring the mooring instruments we plan to deploy at the end of the cruise to depth and compare them to the temperatures and salinity measured by the CTD system.

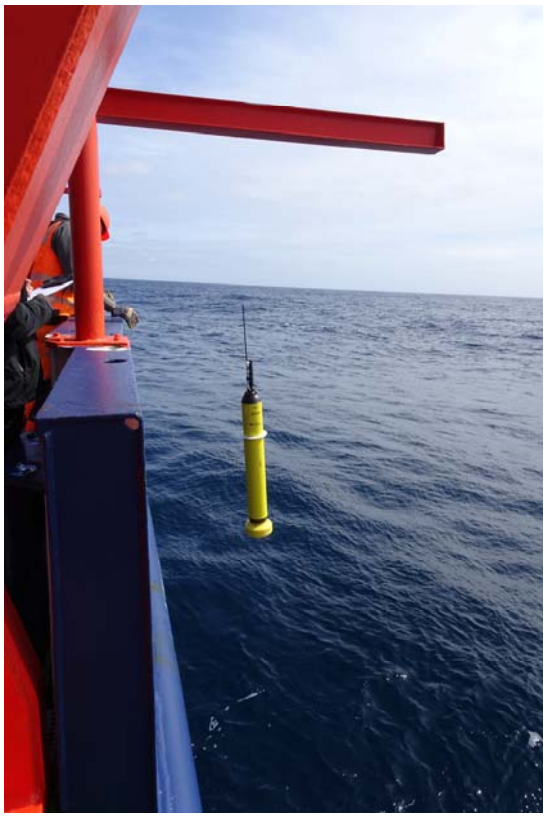
The section along 44°W was the second section of this cruise along which we wanted to take noble gas samples (helium/neon) as presented in the last weekly report. Therefore, we heard again the familiar hammering sound from the hangar during this time. South of Greenland, the conditions unfortunately worsened on Thursday, 10.05.2018. A storm system had left us with high waves, so that we were shaken up considerably at wind forces of 8-9 Bf. In the foamy crests of the waves we could hardly see the icebergs carried around the southern tip of Greenland by the East Greenland Current. We therefore had to stop our station work for a day.

On Friday, 11.05.2018, scientific work continued. We approached the Greenlandic 3 nautical mile zone with a densely spaced network of stations, where we finished the sampling of noble gases. All copper tubes brought with us are now filled with water samples, and we are looking forward to the measurement results from the Bremen laboratory. The CTD data recorded to date show that last winter produced considerable mixed layer depths not only in the central Labrador Sea but also south of Greenland.

After we finished work off Greenland, we left the foggy Kap Farvel on a southeastern course and made our way to the Reykjanes Ridge. This underwater mountain range forms the northern extension of the Mid-Atlantic Ridge and divides the North Atlantic into two halves. We are still staying in the western basin, continuing our CTD work there and will visit another PIES position,

BP-15, tomorrow, on Monday.

On behalf of all cruise participants,



The last but one Argo float is deployed.

The water sampler is rigged with mooring devices (MicroCATs). These instruments were previously equipped with batteries and programmed accordingly.

Photos: M. Köllner, D. Kieke