

Maria S. Merian MSM05/5 Weekly report 1

At Reykjavik it was easy for everyone to find the ship in the harbour as this is a comparatively small area where the shape of Maria S. Merian stood clearly out. Embarkment was perfectly in time, but our departure was not. A delay of about eight hours had to be accepted because the luggage of six participants got stuck in Amsterdam and did not arrive with the passengers. With only one flight per day from Amsterdam we were lucky to depart on the 18th of July with such a small delay.

The first days were occupied with unpacking, installing the labs, taking part in security trainings &c. and thus went by quickly. The norwegian, spanish and german work groups set up their equipment rapidly to operational status. Heading was north into the Greenland Sea. First ice contact was encountered already at 70°N, somewhat east of Scoresby Sound, where the satellite images displayed no ice at all. This was a first warning that the attempt to enter the ice at 74°N might take more effort and time than originally expected. This was indeed the case. The recovery and redeployment of three moorings belonging to ZMAW Hamburg went well, nevertheless. All three were situated in dense pack ice with little space to move the ship (Foto O. Zenk). Patience was needed partially to wait for ice floes to drift off from the mooring's position or to surround large ice floes in the foggy conditions that were prevailing. The tube-mooring's instruments and the ADCP are in the process of being downloaded and evaluated at the present moment. The main aim of these measurements is the assessment of fresh water fluxes in the East Greenland Current.



It became quickly evident that a second trip into the ice would consume too much time to be feasible and consequently the trip's schedule was modified. Instead of moving to 75°N and start a hydrographic transect there as was originally planned, the way out of the ice at 74°N was used to perform a CTDO₂ transect. Again, dense pack ice reduced the ship's speed effectively. At 10°W, now in open waters, we changed from the zonal eastern direction to a heading in the direction of the central Greenland Basin, where the autonomously profiling deep sea moorings of AWI are located. They will be exchanged during the next few days, interlaced with CTDO₂-stations and drifter deployments. The data of the moored profiler will give a detailed record of the last winter's convection history which cannot be judged yet from the data gained up to now, as we reside still on the rim of the Greenland Basin.

Weather conditions are extremely favourable with little wind and small waves only, so we expect the best progress. With best wishes on behalf of the scientific crew,

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Gereon Budéus