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After we regretfully had to leave the pack ice covered region last Sunday, we concentrated on mooring work during all of last week. Five moorings had to be recovered and the same number had to be deployed. Three of them carry autonomously profiling instruments, the other two acoustic systems. The fact that the acoustic systems could not be exchanged but had to be redeployed using the same instruments posed certain difficulties. After recovery, data media had to be exchanged immediately, the condition of the instruments had to be checked, energy supply had to be renewed and the instruments had to be resealed. Clearly, this takes a day or two, and these moorings could not be redeployed directly after recovery, as usual.

Our schedule, however, was jeopardised already at the first mooring site. Despite a number of attempts and various actions this mooring did not float up. After appropriate efforts and waiting we gave up this attempt and recovered – without any problems – two other moorings. The first mooring then had to be dredged; a time consuming manoeuvre. Luckily, we could locate the underwater top buoy with the echo sounder, so that the position of the mooring (and its existence!) was confirmed. The ship and a Zodiac were then positioned 700 m apart, with a Kevlar rope connecting the two. On each, ship and boat, 400 m rope hung vertically in the water due to a weight attached to it. These two weights were then connected at 400 m depth by another 700 m long rope. In this formation ship and boat moved in parallel across the mooring site, until increased tension indicated contact with the mooring. Appropriate manoeuvres of the Zodiac then caused the mooring to float up and the finally recovery was successful. To everyone's great relief not a single piece of equipment was damaged. This was especially important because this mooring was one of the acoustic ones which could not be replaced by exchange instruments.

The other moorings were recovered and deployed according to plan and without loss. One of the autonomous profiling instruments could already be read out, and the data processed so far show that correct operation – i.e. a profile from the sea surface to the ocean floor at 3700 m depth every other day – took place. It is also clear that the volume of data recorded by the acoustic moorings corresponds very closely to the 400-day deployment period without long gaps in operation.

Now we are searching for a small but strong eddy, which will have a diameter of about 20 km only. Due to this small size it will not be easy to find. Whether or not this search is successful, will be clear in the next report period and will be reported then.

Everyone on board is well and sends best wishes again, as do I.

Gereon Budéus, Chief scientist ARK XXI/1a