

## Magnetometer Jacobs University on board Alkor 382 Baltic Sea October 2011

We used the small crane on starboard to deploy the magnetometer, beside the magnetometer we had installed side scan, Mini GI gun and streamer (from starboard to midships).

We removed the long cable (250 m) completely from the cable drum and stored the cable in a (very) large Zarges box between each deployment. So the cable was perfectly in order all the time. We tightened the cable during the deployment with several number of '8's on the large twin bitt. It took about 25m to connect the afterdeck with the large lab room.

Due to plugging by grease that had covered the very small bore for the depth sensor, it had not worked correctly. Thus: do not lubricate the plug connecting the cable and the tow fish. Water needs to be inside that plug in order to transmit the water pressure to the depth sensor. After cleaning and removing the grease the sensor gives proper depth readings again.

Wind was often 5 to 7 Beaufort, sometimes 2 - 3

We used a cycle time of 0.3 Hz. When using 1 Hz the data was quite noisy (100 - 200 nT differences from one reading to the next). I did not find out why. With 0.3 Hz it had worked perfectly.

We used the power supply from the ship net, use of battery power supply had not improved the signal quality with 1 Hz cycle time.

In software version 8.00013, I had to disable the option 'direct link', otherwise it was impossible to synchronize the magnetometer with the GPS.

Used cable lengths and survey speeds (without additional weight on the cable), water depths 10 – 25 m:

200 m, 2.5 kn: magnetometer had ground contact

200m, 4 kn: ok

200m, 7 kn: ok

100 m, 4 kn: ok

