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Delayed mode quality control of ARGO floats in the Northeast Atlantic

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As part of the German contribution to ARGO 10 floats have been deployed in the North Atlantic by the Federal Maritime and Hydrographic Agency (BSH) in June 2004. Together with previously deployed floats 29 floats are operated by the BSH at present and a total of 25 new deployments is planned during 2005.

The floats have been deployed along the former WOCE A2 section and are intended to monitor water mass variability and heat transport fluctuations in the North Atlantic Current area. Several repeat sections of the A2 line have been conducted by the BSH since 1988, including high resolution XBT lines. Previous investigations have shown that strong decadal variability is associated with the Labrador Sea Water (LSW) in this area. The floats will hopefully deliver a clearer view of winter time variability, which is not well resolved in the previous data sets.

Another source of high variability is encountered in Eastern North Atlantic at the level of the Mediterranean outflow. The influence of the Mediterranean Water (MW) is clearly extending down to the parking depth of the floats at 1500 m. Special consideration is given to the MW water influence during the delayed mode quality control and the assessment of sensor drift. Float to float comparisons showed that apparently some of the floats got trapped in Meddies, indicated also by their trajectories. Data from previously deployed floats are used to augment the climatological data set used for the quality control, once their quality has been assessed.