



Results from the LADCP measurements conducted in the Eurasian Arctic

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Preliminary results from 114 dual headed LADCP (Lowered Acoustic Doppler Current Profiler) measurements performed during the NABOS (Nansen and Amundsen Basin Observational System) 2013 cruise in the Eurasian Basin of the Arctic Ocean are discussed. Calculated horizontal magnetic field strength for that specific study area and cruise time span equals to 1500-4200 nT which is a critically low value. This affected the heading usability of instruments' compasses, thereby making the obtained ocean currents velocities and directions difficult to assess. Additional data post-processing performed with the LDEO Software (Version IX_9) and dedicated Matlab routines have so far allowed to obtain reasonable velocity profiles only in several cases (with additional information from the SeaBird 911plus CTD, GPS and bottom tracking). Thus, doubts concerning the feasibility of compasses, confirmed by difficulties encountered previously in similar polar locations, rise the necessity of providing an additional heading source which should be mounted together with the Teledyne RDI instruments to gain an unquestionable velocity field.