

Interactive comment on “Assessment of variability of the thermohaline structure and transport of Atlantic water in the Arctic Ocean based on NABOS CTD data” by N. Zhurbas and N. Kuzmina

N. Zhurbas and N. Kuzmina

nvzhurbas@gmail.com

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Dear Prof. Fer,

We are very grateful for Your attention to the work, comments and help with the text of the manuscript. It is very important for us.

We will definitely present a discussion on the barotropic contribution. Before starting to work on this comment, we would like in terms of discussion to write a preliminary answer to the Referee #2. Clarifying some issues will help us, in particular, to consider in more detail the effect of barotropic additive on the volume flow rate of the AW. This

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answer is currently under preparation.

We will also be grateful to You for an explanation of what do You mean by the estimation of the error of geostrophic volume transport. The fact is that under the NABOS program periodically (every year) in a certain area the only one (not two or three) section is made. In the work (Zhurbas, 2019, included in the list of references; now accepted for publication), the error associated with the determination of the reference horizon was analyzed in detail for some of the NABOS sections. This error did not exceed 14%. But apparently You mean an another assessment, namely, volume transport standard deviation. Therefore, we can obtain, for example, the average volume transport in a certain area over several years and estimate the deviation from this average value. Do You mean such an assessment?

Kind regards, Nataliya Zhurbas

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