

Interactive comment on “Freshwater components and transports in the Fram Strait – recent observations and changes since the late 1990s” by B. Rabe et al.

Anonymous Referee #1

Received and published: 28 April 2009

General comments: This manuscript is an interesting and careful study of the freshwater components found in western Fram Strait in three hydrographic surveys. This is important because the current system found there (the East Greenland Current and its adjacent shelf circulation) is responsible for the export of large volumes of freshwater from the Arctic Ocean. A helpful comparison is made with relevant model results which suggests an interpretation of aspects of the results.

Specific comments & technical corrections: I do not wish to suggest any substantial alterations to the manuscript, but some features require correction / clarification. These are listed as follows.

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1. IFW. I was somewhat puzzled by the IFW definition on first reading this ms. A second reading indicates that it is intended to mean (I think) that when IFW flux is positive, that indicates the transport of a freshwater deficit. A simple version of this statement (if correct) should be placed on first use, rather than allowing the reader to catch up with partial clarifications which appear later in the ms.

2. p 583 line 11 - reference to Gerdes et al. In the reference list, this is incorrect (wrong title) and incomplete (no mention of ASOF book title & editors, as is usual)

3. p 584 line 28 - reference to Dodd et al. - Garabato is spelled incorrectly, there is no article no. or DOI.

4. p 587 line 25, spell Aanderaa

5. p 588 line 15, standard deviations - of what?

6. p 588 line 20, its (delete apostrophe)

7. pp 588-9, section 2.3, the description of the inverse analysis is inadequate. Amplify. What is being constrained to what? How does the iterative procedure conclude?

8. p 591 line 12, delta-18-O has the number 108 in superscript.

I only checked a couple of references and found two errors, so please check the references carefully.

Interactive comment on Ocean Sci. Discuss., 6, 581, 2009.

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