

Arctic Mediterranean Exchanges: A consistent volume budget and trends in transports from two decades of observations” by Svein Østerhus et al.
<https://doi.org/10.5194/os-2018-114>

Response to Topic Editor

Please find our answer below (in yellow answering boxes).

Technical issues:

P2, L2 this enables us (instead of allows us)

ANSWER	Changed accordingly
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P6, L10 water originally (blank)

ANSWER	Changed accordingly
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P16, L2 delete: in principle

ANSWER	Deleted
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P16, L3-4 and is discussed in Sect. 4.1. (instead of: and deserves discussion (Sect. 4.1))

ANSWER	Changed accordingly
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P16, L17 “is” instead of “was”

ANSWER	Changed accordingly
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P16, L21-22 (Morison et al., 2007); this is further evidence that an imbalance of 0.1 Sv is unrealistic.

ANSWER	Changed accordingly
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P19, L7-8 “We should therefore not expect a perfect balance between average AM-import and AM-export.” I do not agree with that. With all these caveats, an imbalance is possible but not a priori expected.

ANSWER	The word “expect” has been replaced by “demand”.
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P20, L11 “For other purposes, this might not be the case, however.” It is not clear what is meant here. Please rephrase or explain.

ANSWER	This sentence and the end of the paragraph have been replaced by: “The main motivation for monitoring these flows is, however, to observe their effects on conditions in the AM and on the AMOC. That purpose may be better served by locating some of the monitoring sections somewhat downstream from the intensive mixing areas over the Greenland-Scotland Ridge.”
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Repetition:

The Conclusions section contains a lot of repetition from the previous sections, and not that much of new conclusions. Please check whether this can be reduced and changed.

ANSWER	The Conclusions section has been reduced by more than 40% and is now hopefully less repetitive and more concise.
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References:

Several cases: Deep-Sea Research (hyphen)

ANSWER	All "Deep Sea" changed to Deep-Sea
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Andersen and Piccioni should be: Front. Mar. Sci., 3:76, doi: 10.3389/fmars.2016.00076

ANSWER	Changed accordingly
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Change, I. P. o. C.: Climate Change 2013 – The Physical Science Basis ... This is not the author; should be Stocker et al. Please correct, also in the text.

ANSWER	Changed to: Stocker, T. F., Qin, D., Plattner, G.-K., Alexander, L. V., Allen, S. K., Bindoff, N. L., Bréon, F.-M., Church, J. A., Cubasch, U., Emori, S., Forster, P., Friedlingstein, P., Gillett, N., Gregory J.M., Hartmann, D. L., Jansen, E., Kirtman, B., Knutti, R., Krishna Kumar, K., Lemke, P., Marotzke, J., Masson-Delmotte, V., Meehl, G. A., Mokhov, I. I., Piao, S., Ramaswamy, V., Randall, D., Rhein, M., Rojas, M., Sabine, C., Shindell, D., Talley, L. D., Vaughan, D. G., and Xie, S.-P.: Climate Change 2013 – The Physical Science Basis: Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change, in, edited by: Stocker, T. F., Qin, D., Plattner, G. K., Tignor, M., Allen, S. K., Boschung, J., Nauels, A., Xia, Y., Bex, V., and Midgley, P. M., Cambridge University Press; Cambridge, United Kingdom and New York, NY, USA, https://doi.org/10.1017/CBO9781107415324.005 , 2014.
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Hansen and Meincke: Deep-Sea Research (in full, as in all other references, for consistency)

ANSWER	Change made
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Please check some more at other references.

ANSWER	All references are checked and mistake corrected. Caltech Library Journal Title Abbreviations is used. For DOI's we have used: https://doi.org/.....
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