

Interactive comment on “The MEDESS-GIB database: tracking the Atlantic water inflow” by M. G. Sotillo et al.

M. G. Sotillo et al.

marcos@puertos.es

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Dear Editor, Please, find below our point-by-point answer to the comments from Reviewer #1 and # 2. We have also uploaded in a zip file the revised manuscript and a version of it with change control activated (both in pdf format). Best regards, Marcos G Sotillo and co-authors

Reviewer #1

Dear Reviewer, First of all, thank you for your detailed reading of the manuscript and your positive general comments. The authors have addressed all the specific comments pointed out in your review. Every specific comment of the reviewer has been taken into account, modifying the manuscript in the suggested sense. A point by point

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answer is provided. Please find our replies below each of your comment. Thank you, M G Sotillo and co- authors

Specific Points: - Pag. 866 - line 20, I suggest to add a just published TOSCA Project paper: “Toward an integrated HF radar network in the Mediterranean Sea to improve search and rescue and oil spill response: the TOSCA project experience, Bellomo et al, 2015 ”, <http://dx.doi.org/10.1080/1755876X.2015.1087184> The suggested reference has been included in the manuscript.

- Pag. 876 - line 6, at the end of the line the sentence “deflected to the northwest” should probably be changed in “deflected to the northEAST“, given that you referred below to “intrusion of modify Atlantic water into the north-western basins”. The typo has been changed.

- Figure 1 – In both panels a) and b) the size of the labels used to indicate different types of drifters and the number of each one, require to be increased enough to allow the comprehension of the text. As the reviewer suggested the label size has been increased in the Figure 1 (panel b) to ease identification of the drifters. Definitely, the change was needed to enhance the comprehension. Figure 1 (Panel a) remains as it is in the original manuscript. We justify this decision because this plot mainly aims to describe the MEDESS-GIB Campaign, emphasizing the use and distribution of vessel units and being not so focused on drifter identification purposes (now in the revised version this identification is clear enough for the reader through the(b) panel of the same Figure 1). Indeed, increase the font size of the drifter labels in this (a) panel would results in a very messy plot.

- Figure 2 – “The in-situ drifter buoy platform” add an S to platform(s). Done

- Figure 3 – Caption & text inside the paper: you didn’t say anything here about the temperature evolution along streamlines represented by colours: since the T-scale appears in the lower part of the figure, you should mention the temperature or delete the T-scale Since temperature is not referred here, the T-Scale has been deleted from this

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Figure as the Reviewer suggests.

Reviewer #2

Dear Reviewer, First of all, thank you for your detailed reading of the manuscript and your positive general comments. The authors have addressed all the specific comments pointed out in your review. Every specific comment of the reviewer has been taken into account, modifying the manuscript in the suggested sense. A point by point answer is provided. Please find our replies below to each of your comment. Thank you, M G Sotillo and co- authors

Specific Comments:

- Pag. 2 - line 3, change Program MEDESS-4MS in Project MEDESS-4MS Done.
- Pag. 3 - line 3, change coastal circulation with ocean circulation Done.
- Pag. 3 - line 25, verify the reference Al-Rabeh et al., 2000 as it is listed in the paragraph References as only Al-Rabeh and dated 1994 – The typo has been corrected in the revised manuscript.
- Pag. 8 - line 21, delete the close parentheses at the end of the sentence Typo corrected.
- Pag. 10 – line 17, change spike; with spike. Done. - Pag. 14 - line 25, can you provide references for what mention on this line? "...exchange in the biogeochemical processes of the western Mediterranean Sea." The Balbin et al. 2014 reference has been included in the revised manuscript to rely the fact pointed by the reviewer. R. Balbín, J.L. López-Jurado, M.M. Flexas, P. Reglero, P. Vélez-Velchi, C. González-Pola, J.M. Rodríguez, A. García, F. Alemany, Interannual variability of the early summer circulation around the Balearic Islands: Driving factors and potential effects on the marine ecosystem, *Journal of Marine Systems*, Volume 138, October 2014, Pages 70-81, ISSN 0924-7963, <http://dx.doi.org/10.1016/j.jmarsys.2013.07.004>.

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- Pag. 16 - line 13, verify the status of Capo' et al., 2015 (now in press? 2016?) The reference have been updated.
- Pag. 16 - line 14, correct operational modesl with operational models Typo corrected
- Pag. 17 - line 1, correct Garscard in Gascard Typo corrected
- Pag. 18 - line 19, the reference "Shadden, S. C., Lekien, F., Paduan, J. D., Chavez, F. P., and Marsden, J. E.: The correlation between surface drifters and coherent structures based on high-frequency radar data in Monterey Bay, *Deep-Sea Res. Pt. II*, 56, 161–172, 2009." in not in the text but only in References. Please verify. The reference Shadden et al 2009 has been corrected in the bibliography and now it is rightly cited in the text.
- Pag. 18 - line 29, change Journal of Operational Oceanography in J. Oper. Oceanogr Done

Please also note the supplement to this comment:

<http://www.earth-syst-sci-data-discuss.net/8/C510/2016/essdd-8-C510-2016-supplement.zip>

Interactive comment on Earth Syst. Sci. Data Discuss., 8, 863, 2015.

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