

Interactive comment on “The global distribution of the M1 ocean tide” by Philip L. Woodworth

Ivan Haigh (Referee)

i.d.haigh@soton.ac.uk

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This paper used a global database of tide gauge records (GESLA) to examine, for the first time, the global distribution of the M1 tide. Overall, I found the paper to be very well written. The work will be of interest to tidal scientists. It is carried out robustly and clearly worthy of publication. My comments are very minor, as follows.

First, the final two paragraphs of the introduction seemed a bit out of place. I would suggest moving the sentence describing the overall aim of the paper to the end of the introduction sentence, and integrating the 2 last paragraphs into the introduction text a bit more coherently.

Second, in the data and methods section I would like a few more details on the tidal analysis. Exactly what software was used and maybe a weblink to this. I assume it is the NOC software described earlier.

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Third, the paper needs more detailed on the numerical model used. At present this is described quite vaguely. It would be good to have a description of precisely what domain the grid covers, the co-ordinate system, how exactly the model is forced. I assume tidal potential. It might also be worth moving the description of the model to the data and methods section (3) and just describe the results in Section 4.3.

Fourth, the author uses the term 'we' which I find to be a bit strange given this is a single author paper.

Fifth, the author refers to Cartwrights findings, or Platzam, but it would be good to include a year after each reference, for those not so familiar with this literature.

Overall, I commend the author on a great paper.

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