

Many thanks for these comments.

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.

I see what you mean. I have moved the final three paragraphs around and reworded things slightly, so as to end the Introduction with the overall aim.

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.

Yes, it is the NOC software. I have made that clear now.

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.

I have added a few more words to the second paragraph of section 4.3. The second and third paragraphs already refer to the things the reviewer mentions above i.e. the model is global, $\frac{1}{4}$ degree grid, and forced only by the tidal potential. I have added now that it is a finite-difference model and mentioned once again that it is driven only by the tidal potential. There are full details in the Supplementary Material which the reader is pointed to in the text. That now has more model details that Reviewer 1 requested and that I should have provided already. I did not want to include 3-4 pages of model description and validation in the main part of the paper.

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

Thanks. I agree. I did a search on 'we' and reworded things.

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

I know what you mean. I have included the year now in 4 or 5 more places. But sometimes it seems clumsy to refer to 'Cartwright (1975, 1976) and Cartwright et al. (1988)' when the reader by then will know what is meant by 'the three Cartwright papers' so I have left it as that in a couple of places.

Overall, I commend the author on a great paper.

Many thanks again.