

Interactive comment on “Tidal elevation, current and energy flux in the area between the South China Sea and Java Sea” by Z. X. Wei et al.

Anonymous Referee #2

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This is a well prepared paper. The main message of the paper on the tidal dynamics in the area between the South China Sea and the Java Sea is clear. Since this region is commonly chosen as the open boundary in the numerical model of the SCS, the results shown in the paper are important and ready for immediate application.

Below are two specific comments for the paper.

First, in the results section, the authors may need describe their harmonic analysis method in details. Since it is a trivial work to extract the harmonic constants of the eight tidal constituents M2, S2, N2, K2, K1, P1, O1, Q1 in Foreman or Pawlowicz's program, it is not clear why the harmonic constants of P1 and K2 in the current method has to be inferred indirectly.

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Second, in the discussion section, the comparisons between the observational and the four global tidal model results are very ingesting. It shows that not a single model could produce an optimal solution for tidal prediction in this area. However it is not very clear what causes the inconsistent behaviors among the tidal models and how this could guide one to determine the tidal boundary conditions in a model. Since such a topic may attract a wide audience, this is the aspect which should be emphasized and is expected to improve the paper significantly.

Overall, this paper should be recommended for publication with the two comments being taken into consideration.

Interactive comment on Ocean Sci. Discuss., 12, 2831, 2015.

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