

## ***Interactive comment on “Asthenospheric anelasticity effects on ocean tide loading in the East China Sea region observed with GPS” by Junjie Wang et al.***

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Now that the three reviews of this paper are available I thought I would add a few comments, most trivial.

The 3 reviews seem collectively very useful. Richard Ray points to the possible importance of sea water density choice in the calculations - he does not insist on it, but I wonder if it would be useful for you to at least mention it in the Conclusions, to flag the problem to readers? He also points to uncertainties with the assumed errors (Table

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4 etc.) as do R2 and Duncan Agnew. R2 additionally points to a number of useful references that could be included.

The most detailed review is that of Duncan Agnew which raises questions about assumptions in the analysis to do with 'best' tide model etc. Given that this review is more detailed than the others I shall probably ask him to review your revised version.

Some detailed comments from me, many trivial:

Title etc. I though geodesists insisted on GNSS and not GPS these days? Although I can see that most of the historical record must have come from GPS.

p2, 3 - what does 'positive trend of amplitude' mean?

40 - west coast of central America

Figure 1 caption line 4 - move 'as triangles' to the end of the sentence. Also in the caption say that (b) has the same colour scale as (a) as there is no colour bar alongside it.

p6, 17-18 - what does 'instead of .. values' mean? Obviously, if you have a record of 18.6 years you need nodal corrections to be time-dependent (with that period). I guess this is alluding to some software packages for which for short records one can assume a fixed 'f' and 'u'. But for what you are doing here it is obvious they have to be at the exact times.

Figure 2 - the absence of data from S. Korea in the UHSLC data set (and also GESLA-2) is a bit of a puzzle which hopefully will be corrected at some point. It that impacts on your analysis I would be grateful if you could stress the importance.

20 - the problematic coastal areas ..

p7, 1 - is listed

Figure 3 - presumably the overflow white arrow in the colour bar is a GMT error? Could

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you make that red? Also, on paper anyway, I can hardly see the three GPS station numbers in (b). Also the caption should include mention of the numbers.

23 - Ryukyu Islands respectively (Figure 3b).

p11, top - at this point I wondered if you had fully given credit to web sites or references of all data sources. Please check.

28 - I guess this 13.96 hour business is well known to GPS people but not to me. Could you have a sentence explaining more or a reference?

p12, 4 - change 'maps to only an error of' to 'has an error of only'

15 - an improvement

17 - isn't 'those' (i.e. the properties) of the asthenosphere part of the 'adopted Earth models' in the first part of the sentence? I think this needs rewording.

18 - especially important

21 'was prepared'. Sounds like cookery. You mean computed or extracted?

24 Q of 70. Is a reference needed here? Bos et al. (2015)?

p13, 27 - 'has been validated'. Is this interpretation unique?

p16, 8 needs https://

30 drop 'assumed'

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Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2019-133>, 2019.

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