

**Subject:** Re: SoG storm surge paper draft  
**From:** Vasily <v.korabel@dal.ca>  
**Date:** 14-12-19 02:26 PM  
**To:** Nancy Soontiens <nsoontie@eos.ubc.ca>

Hi, Nancy

Thank you for including me as well.  
I have just a couple of questions/notes:

[1] On page 8, 2nd paragraph, you say:

"Additionally, the inverse barometric effect of the atmospheric pressure is included, an important consideration in storm surge modelling."

Are you sure that you have it included in the model ? It is not standard in NEMO version 3.1.

If you do, you should probably give a proper reference and clearly state where the data for atmospheric pressure are coming from.

[2] On page 10, Section 4, end of paragraph 1:

You say:

" Comparisons between full tidal predictions and tidal predictions using eight constituents suggest that this error can approach 40 cm during times of high tidal range, and in particular, during the storm surge season Nov-Feb. As such, storm surge model predictions were corrected by accounting for this error."

First of all, the difference of 40 cm between full tidal predictions and simulations with only 8 constituents seems very high to me. I can barely see the difference between 2 (M2,K1) and 8 constituents.

Second, It is very unclear what was corrected. You did not add the 40 cm to the mean sea level, right?

Then, did you correct the tidal predictions? But having an error of 40 cm is a huge error for any tidal model.

Did you correct the surge predictions? But surge is itself 50-70 cm at most. Adding another 40 cm is like underestimating your surges almost by 100% !

Or may be you did corrections to your the tidal forcing?

I think this paragraph should be more detailed and much more clear.

[3] Comment about Figure 4

Instead of showing that there is almost no tide-surge interaction at those four stations, you may consider placing a figure showing the map of the tide-surge interaction amplitude, the one that you

have decided not to show. Make a log scale to emphasize the places where the iteration is taking place.

Otherwise, the paper is very well written,  
Congratulations,

Regards,  
Vasily

On 14-12-11 07:58 PM, Nancy Soontiens wrote:

Hello Keith, Youyu, JP, and Vasily,

We have completed a draft of our storm surge and Strait of Georgia model configuration paper (attached). You are all included as co-authors. We plan to submit to Atmosphere-Ocean.

From each of you, I will need

1. Any comments, questions, edits to improve the paper.
2. A summary of your contributions to the project.

Ideally, I would have this feedback from you by December 19 but I know you are all busy people. Let me know if this is unrealistic.

Thanks,  
Nancy