Dear Dr. J. Williams,

We highly appreciate your efforts for evaluating our manuscript as well as for your final comments and suggestions. In the following, your comments are underlined and our responses to the comments are in normal characters. The line numbering is referenced to the marked-up manuscript version.

On behalf of the authors,

Igor A. Dmitrenko

Dear authors,

Thank-you for the resubmission and response to the reviewers. I am satisfied that you have addressed their comments, and for the paper to proceed without going back out for re-review. I have picked up a few small points to address, please see below. Line numbers refer to version 3 of the manuscript:

1. Line 163 JJA - do you mean June through August? Try to be consistent about naming of these periods.

Yes, we mean June through August. Text in line 164 was corrected accordingly.

2. Line 164 and 179 You could cut the repetition here.

We omitted this repetition in lines 180-182.

3. Table captions. The repeated "and" is ambiguous. I suggest eg "Correlations (R) of monthly-mean atmospheric vorticity and/or Churchill River discharge against sea level anomalies in western Hudson Bay"

Changed as recommended, lines 906, 910, and 914.

4. I think you're right to use daily means of the SLA, that's fine. But as far I can see you took daily means of the hourly tide gauge data, but there's no mention of a tidal filter (eg Doodson filter). If you just take daily means of hourly data without filtering, aliasing of the M2 tide will leave a fortnightly cycle with amplitude about 0.03 of M2 amplitude, ie about 4cm. I don't think it will hugely affect your results, but it might reduce correlation slightly, and would show up in figure 6. Please clarify whether you did this.

Sea level data were de-tided using an algorithm by *Foreman* (1977). We added this information in lines 137-138.

5. It is still hard to see all the lines in figure 6, especially the period of most interest where the spikes coincide. It is possible if I zoom in so I won't absolutely insist you replot it, but it would be better if you do. I suggest a darker shade of blue, to lighten the yellow highlighting and to ensure the highlight is the bottom layer. It would also help a lot to reduce the aspect ratio of the plot (make it less tall but the same width) as this reduces the spikiness of the peaks and makes them clearer.

We modified blue line in Figure 6 with a darker shade of blue as recommended. The yellow highlight has been moved to the bottom layer.

6. I like the way you've used the line colour on the axes as a legend.

Thank you.

7. The discussion is quite long. I suggest breaking it up with some subheadings to aid the reader.

We agreed with this comment. Actually there are three contributors to SLA assessed in discussion: wind forcing, river discharge forcing and thermohaline (thermosteric and halosteric) forcing. The problem, however, is that there is interplay between these three contributors, and discussion is written in a way that they are cannot be easily separated without substantial reorganizing of discussion. Respecting this comment by the Editor, we would like to keep the existing structure of discussion.

8. Line 547 and elsewhere - remove apostrophe after time series.

Corrected in lines 477 and 548.

9. The SLA scale is wrong on figure 8.

Thank you, fixed.

10. The paragraph about resupply starting 663 seems a bit redundant. line 664 "highly rely" -> rely heavily

In abstract, we pointed out the importance of sea level variability for the coastal infrastructure in lines 33-34: "*Therefore, understanding sea-level variability at the Port is an urgent issue crucial for safe navigation and coastal infrastructure*". This paragraph in lines 665-670 highlights this point providing additional context of our research. We modified text in line 665 as recommended.

11. As you finalise the paper, you may like to consider a graphical and/or video abstract to explain your paper to a wider audience. This doesn't have to be ready at the same time as publication, but do think about what you'd put in this.

We appreciate your advice.