

We would like to thank the editor for this additional opportunity to improve our manuscript, and we have accepted nearly all of the editor's suggestions. Please find our response to her queries below in italic typeface.

1) more a question than a recommendation: what do you think about shortening the title to:

"Semi-automated effective width extraction from time-lapse RGB imagery of a remote, braided Greenlandic river"?

*We agree with this title suggestion and have changed the title accordingly.*

2) Figure 2: the dashed polygon in the second to last image does not match up with the classified image. It seems like the dashed polygon is both shifted and also covering a larger area than the classified image. Please correct the dashed polygon to avoid mismatch. I would also call it a "dashed polygon" instead of a "dotted polygon" in the text.

*These polygons actually do align- the image is oblique enough for this area to appear much larger in the original version as opposed to the orthorectified version (and this is also why there is much distortion out of the region of interest). However, we do agree that the parallelogram in the upper figure does not satisfyingly map below. We have changed the dashed lines to contour around the protrusions in the foreground and background to make this link more intuitive. We have changed 'dotted' to 'dashed.'*

3) Figure 4: Please correct the time axis in both plots - the labels at the tickmarks are not equidistant, e.g. between 1st and 2nd tickmark is a difference of 8 days and between 2nd and third there is a difference of 4 days in the upper plot and for the lower plot for example between 1st and 2nd tickmark is a difference of 43 days and between 2nd and third there is a difference of 8 days. Please use a standard time axis here so that data gaps become apparent straight away. Depending on the frequency of the data gaps (which are difficult to assess with the way the axis is currently plotted) it would be helpful to connect the data points with a thin grey line, so that the temporal fluctuations are more easily identified.

*This is an excellent catch: the data were plotted properly but the axes were labelled incorrectly. We have amended the axes to have equidistant tickmarks. We have not connected the data with any lines, as that would imply that we were interpolating for missing data and would cause confusion for effective widths given on the same day.*

4) how much does the time of day of the images that made it to the stage of being used for the extraction of the effective width vary? I would imagine that there are quite strong diurnal fluctuations in river water levels, so morning vs afternoon images would show quite pronounced differences in effective width. How strong are these diurnal fluctuations and would it make sense to further limit the data set to images taken during a similar period/time of day within the diurnal fluctuation. That way we would avoid showing a morning effective width for day n and an afternoon effective width for day n+1, thus producing a difference between those days that is merely the result of the time of day of image capture.

*This is a good point, as there are quite strong diurnal differences in stage throughout the day and day to day caused by atmospheric forcing of the ice sheet. However, the result of the similarity filtering is that images are collected at very similar sun angles, which in effect is at the same time of day each day. This sun angle definition of time of day (rather than actual time) is crucial in the arctic, where lengths of day and intensity of insolation change rapidly from week to week. Thus, this filtering process eliminates this concern.*

5) page 4 line 2: delete "an", line 3: replace "can" with "to"

*We thank the editor for these careful copy edits, and have made the recommended changes.*

6) Section 3.1: "azimuth angles between degrees were found to produce shadows" - some information is missing here - at which degrees does this occur?

*This is an important catch that had been missing from several drafts. These angles are between 245 and 290 degrees and between 70 to 100 degrees.*