This paper uses CryoSat-2 radar altimetry (and OIB ice thickness data and MEaSUREs velocity data) to determine glacier runoff in a northern Greenland glacier basin. The Humboldt is used as a test case for this method.

One general comment that I have is that there needs to be more of a discussion on where this method may be applicable. The author describes the melt/water environment as being the key limitation. I'd suggest that here are other limitations that include: latitude, trend and width of the glacier valley, and OIB data availability.

While this is intended to be a brief communication, the Height change estimation using CryoSat section probably needs more information to have this paper stand a little more on its own.

The paper is fairly well written, although it needs a bit of polish that usually comes from having multiple authors and multiple sets of eyes on a manuscript.

I don't think that the title should have a period

L19: "… synthetic aperture radar (SAR), interferometric SAR (SARIn)…"

L30: I am concerned about differences between baseline C and D. Did you see this? How would differences affect these results?

L36-38: This sentence is a bit long and hence a bit confusing. Needs an edit.

L43-50: Somewhere in here, it might be good to acknowledge that this outlet glacier is at a high latitude (79.5 N), providing more data points than you would get from the southern part of the island, simply based on converging satellite ground tracks. It might be good to add a grid or some indication of this (latitude/longitude) in your figure(s). Further, this is a large glacier, with a wide terminus, providing more data points than you would get from more constrained outlets.

L49: Why was this time range selected? It seems a little later (both start and finish) than I expected. I now see (on L242) why the October date is chosen; what about the start?

L60: Where is the 600 m contour? Below 1000 m the contours can bunch up quickly. This contour (or perhaps the 500 m for continuity) should be added to the figure(s) (especially Fig 1) as well.

L62: is the choice of 100 m separation for swath mode, vs 400 m for POCA mode purely arbitrary?

L74 "This is not an issue…" What is not an issue?

L80: Stray sentence. And I think that the comma should be a semicolon.

L84-85: “Data from both radar … have been used.” I take it that this means that these data were used in the MEaSUREs velocity assessments?

L105-108: it might be good to see the velocity field somewhere. It would help with this sentence and to help the reader see the choices you made for the sides of your glacier domain.

L108: “The average ice thicknesses … are … speeds … are … etc. Also, be consistent with Oxford commas throughout the paper.

L109: Mankoff et al., 2018 (and Mankoff et al 2019, cited in the Intro) are missing from refs

L112: again, the comma here should be a semicolon. While this phrasing works conversationally, it’s really just 2 clauses connected poorly.

L123: I’d pull this equation out of the paragraph.

L123-136: the subscripts disappear for rho or lose an underscore associated with ice_in; check for consistency. For rho_w in equation 1 and in the text in L123: should this be included to make the units cancel?

L182-183: The basin 2 and basin 3 run-off values look comparable for the entire time series (e.g., 2013-2014). It is fair to say, however, that the error circles are converging; perhaps discuss that? I understand that the larger basin runoff must include the smaller basin runoff, and the smaller basin will never outpace the larger basin, but why do the errors converge?

L193: Overall, the error discussion is pretty thorough. More papers should have this level of discussion on errors.

L195-196 and L205-207: why is accumulation included in L195 (and not firn densification), while firn densification is included in L206 (and not accumulation)? I am sure that I am missing something, but perhaps some language here to help the reader would be good.

L207-208: I don’t understand this sentence; some description of this in this reference (as opposed to just in Gray et al., 2019) is needed.

L249-252: some mention should be made to 1) CryoSat track spacing (it’s denser up north) and 2) the broad nature and orientation (relative to satellite ground tracks) of Humboldt. Both of these things contribute to more satellite data volume.

L269: ‘ICESat-2’

L279: Here you use what I have always considered the more common way of referring to ‘CryoSat-2’. And BedMachine now has a capitalized ‘M’. Which is it? Perhaps be consistent here.

Figure 1: as mentioned above, it would be good to have some sort of grid. Also helpful would be to add a contours (like in Figure 3) and include an additional contour between 1000 m and the water.

Figure 2a: remind people of what the ‘added values’ are, or where they come from, or just point them to the statement in the text.
Figure 2c: for consistency, I’d add ‘from 3 basins from title’.
Figure 2d: my image has 2 x-axes.
Figure 2e: did you exclude basin 3 because basin 2 and 3 have such similar results in 2d?
Caption: “…the potentially uncertainty…”

Figure 3a: add contour down low