I (Andrew Bliss) received comments in an email from Kirsten Elger, the editor for this article. Her attachment with the comments did not come through in the Copernicus system so I've pasted them here. Our responses are in blue text below.

(1)

I have read your manuscript and especially focused on your answers to the referee comments. All in all, I appreciate the detailed description of the instruments, their calibration and the resulting data. However, I do agree with the key comments of the reviewers (below) and would like to ask you to address them a little more than in the revised version.

Both reviewers suggested that parts of the introduction (i.e. the dam project and the relevance of the data for climate change and river runoff) should be modified and the introduction more focused on the relevance of the data for the validation of modeling input data. You answered that the more global context is relevant for readers beyond the community. This is correct, however, the introduction shall not raise expectations that are not fulfilled in the later parts of the manuscript.

The revised manuscript does not raise expectations that are unfulfilled. I deleted the mention of the dam in the abstract. Prior to resubmission we already reduced the focus on climate and the dam. The introduction is supposed to provide a little context and some broader relevance - that is all that is left.

I do understand your point with the dam that was the funding reason for this project and think it is ok to keep it as you suggested.

Howver, reading your manuscript,

"we performed extensive field measurements in the same area. Our work combined field measurements with glacier runoff modeling to make projections of the effect of climate change induced future glacier mass changes on the inflow to the proposed dam; this paper focuses on the measurements"

gives me the impression (and I am speaking as out of your community, I am a structural geologist by training and data curator for the last 5 years) that you are describing the data here (this paper focuses on the measurements) and that the glacier runoff models including the projections of the effect of climate change induced changes (etc) are part of an other study?

Yes, that is correct.

If my interpretation is correct, I think that it would make everything much clearer if you stated this clearly in the introduction (even if the modeling paper is not yet published). What I mean is to slightly expand the last half sentence from

"; this paper focuses on the measurements"

to

". This paper focuses on the measurements while the resulting glacier runoff models etc... will be described in future studies..." (or similar).

This small change would make much clearer, don't you think so?

Changed, as suggested, to: "This paper focuses on the measurements, while the modeling results have been described in Wolken et al. (2015)."

(2)

My second question related to the old data from the 1980s... are these available?

I have glimpsed through the cited papers with the following result:

- Clarke 1991 (please add https://doi.org/10.3189/S0022143000042842 to the reference in the manuscript): no data present, except for plots and summary data like annual sliding velocity, surface ice flux etc...

Added DOI

- Clarke et al, 1985: data tables ... are these the data you are referring to?

Not really, primarily R&M - see below

- what about the two R&M consultants reports. I don't find online versions of them, only citations and the index of reports of the Susitna hydroelectric project. Are the cited reports online available? The titles are metioning data....

Yes - but they are well-hidden online. I added the links to the reference list.
https://www.arlis.org/susitnadocfinder/Record/375325 and
https://www.arlis.org/susitnadocfinder/Record/375326

It seems as at least some data are available as printed pdf (sometimes unfortunately covered by a paper note as in one table in Clarke et al, 1985)... do you possibly have some digital versions of the data (or could you imagine making them, i.e. extracting the data from the report or pdf) and could make them available? This would definitley involve some work (and the agreement of the authors of the data), but having some reference data from the 1980s in digital form would be so important, don't you think so? Of course, I am not requesting this, I am just asking if it would be possible? Especially the old reports (that are not online) could be copied with OHS and the data extracted.... I have no idea how many tables are in the reports and would focus on measured data whenever possible....

this is really just a conning idea, but nevertheless. I wanted to address it...

We have converted the data from the pdf to machine-readable forms. The 1980's mass balance data is already included with the modern data in the data repository. However, we would prefer not to republish additional data (e.g. snow survey data, weather data) this since it is not our own data.

Please let me know what you think about it?

Thank you for your careful attention to our paper. I hope that our comments and edits have sufficiently addressed your concerns.