

Dear Tobias,

Thank you for your careful check. I hope I could catch your intended meaning.

Your comments are written in Century. My replies are written in [Blue and Arial in the reply letter](#). And revised parts are [written in red in the text](#).

The sentence you added provides some explanation but it is still not clear. You cannot argue that "Those detailed topography cannot be detected by Landsat imagery because of low resolutions" and then write in the next sentence "Then, debris-covered areas were determined from high-resolution Google Earth imagery. Specifically, those portions of the glacier surface exhibiting rock glacier-like topography (e.g., flow lobes), were identified visually and omitted."

Please clarify; maybe write "Therefore ..." and remove the info in brackets as it is now written beforehand.

> I have revised as 'Those detailed topography were difficult to be detected by Landsat imagery because of low resolutions. Therefore,...'

Also improve "surrounded BY ice cliffs"

> I have added 'by'.

and add a reference for the sentence "as gradual transitions can exist under permafrost conditions" Maybe one of W. Haeberli or Moelg et al..

> I have added (Mölg et al., 2018) at line 32 in Page 4.

The added sentence "the method might lead to under- or over-estimate debris-covered glacier area." is not clear. It is too unspecific. Any estimate of the "under and over estimation"? Does this refer to the rock glacier problem?

> I have deleted the sentence.