Review of "Ablative and geomorphic effects of a supraglacial lake drainage and outburst event, Nepal Himalaya"
by Miles et al.

General Comments

This study uses a series of high-resolution satellite images to document the filling and coalescing of supraglacial ponds on Changri Shar Glacier that rapidly drained in July 2017 causing a glacier outburst flood. High-resolution DEMs were used to analyze the geomorphic changes caused by the outburst flood, and the social impacts were considered as well. The study was very well written and easy to follow. Figures, albeit a little small at times, contained significant amounts of information that supported the text well. The study's use of high-resolution satellite imagery combined with multiple DEMs enabled a very novel approach for quantifying the flood volume. The flow measurements and field observations also provided unique insight into the timing and path of the flood, and supported the interpretation of events. The discussion contextualized the study well, highlighting (i) the power of being able to use a suite of remote sensing products to observe and quantify glacier outburst floods, and (ii) the impacts that these glacier outburst floods can have on local communities. Given the lack of observations of glacier outburst floods, the holistic nature and level of detail in which this event was analyzed, and how well written this study was, I recommend this manuscript be accepted. A few minor comments may be found below.

Minor Comments

Figure 1 – There is a lot of information in this figure, but I found key aspects of the figure a bit difficult to read. For example, this figure introduces readers to the general area, so the names of the glaciers should be clear (they are very small and hard to read). After looking at the figure for a while, the inset figure clearly shows the maximum area, but the legend does not state this nor is this mentioned in the caption. I would simply make note of this in the caption, so the reviewer knows they are looking at how the maximum lake extent fills and drains. If possible make the text larger.

P3 L23-28 – Does this mean you avoided all areas that had a supraglacial pond or ice cliff in the previous year? Please add a sentence here detailing how you identified areas where surface lowering was not attributable to cliffs and ponds, since it is not very clear.

P4 L9 – "by *a* cloud" or "by *clouds*"?

P5 L16 vs. L17 & L32 – I think it is better to be explicit when referring to the zones like L16 "Zone A in Figure 2"; however, on L17 and 32, the zones are just stated. I suggest being consistent throughout the text in how you refer to them. Either always refer to them as Zone _ in Figure 2, or change L16.

P7 L9 – This appears to reference Figure 4c, not 3c.

P7 L24 – This appears to reference Rounce et al. (2017) not Rounce et al. (2016).

P7 L26-28 – I found this sentence unclear and difficult to read. What do you mean by "of this area in similar conditions"? Also, "examining available historic satellite image archives we have not found" does not make sense – perhaps split this into two sentences: "The area of bank erosion is greatly magnified during 2016-17. This magnitude of geomorphic change appears to be uncommon, since we were unable to find similar areas of bank erosion in any of the historic satellite image archives"?

P7 L29 – It appears that at least a portion of the second peak is simply due to the diurnal signal caused by the melting of the glacier. On July 14th, the flow increased by approximately 3 $m^3 s^{-1}$, compared to this second peak where it increases around 3.5 – 4 $m^3 s^{-1}$; hence, it doesn't seem unreasonable that this is simply the extra discharge coming from the glacier melt. It's timing is consistent as well. This seems much more likely than a possible blockage, since one would expect that the flood would generate very efficient channels, which would make something getting blocked unlikely.

P8 L25 – The use of "low" here is a bit awkward. Consider "melt-inhibiting thick debris *near the terminus* on such glaciers" or something similar.

P9 L2 – "region" not "regional"