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Interactive comment on "Djankuat Glacier Station in the North Caucasus, Russia: A Database of complex glaciological, hydrological, meteorological observations and stable isotopes sampling results during 2007-2017" *by* Ekaterina P. Rets et al.

Ekaterina P. Rets et al.

retska@mail.ru

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Dear Reviewer, On behalf of my co-authors, we thank you very much for giving suggestions to our manuscript and the evaluation of the presented dataset. We have tried our best to revise our manuscript according to the comments. The main corrections in the paper and the responds to the reviewer's comments are as flowing: 1. English is very poor and there are so many cases with typos, errors, and unclear sentences (e.g.,

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Discussion paper

sentences in page 2 line18-19). The entire paper needs to be proofread for grammar. The text has been edited. In abstract the authors mentioned 30% of the basin is covered with glaciers, in page 2 line18-19 this number is 27%, and the range of elevation is also not consistent with that in the abstract. Provide accurate numbers for glacier area and elevation range. Again in page 4, the authors report a different number for drainage area. I recommend explaining these numbers only once and avoid inconsistency. Thank you for outlining that, the values were corrected, duplication of this information was removed. 2. Study area in section 2 should be very brief and focus on the data and basin characteristics. There are redundant information about the previous works in the region, which are not relevant to the focus of a data paper. For instance, last two paragraphs in this section (2. Study area) can easily be removed. The Study area section was shortened, only a very brief description of the North Caucasus mountain system is given, the climate change background and hydrological characteristics and trends of direct relevance to the Study area are given. 3. For better presentation of the data, I recommend authors to provide a summary of the data and sampling time steps and record period in a table. Tables 2 and 3 and Tables 6 and 7 can be merged and modified to summarize variables name, unit, time step, record period, long term annual means, sensors (or estimation methods) used for measuring. It its current version, these information are repeated in both text and separate tables, which makes it difficult to follow. This needs more organizations. For instance, a summary table with all the information would be enough and there is no need to discuss in each subsections about the sampling intervals and instruments, and period pg 8 line 2, 11, 27, 29 or pg 10 line 6 or pg 11 line 2. Thank you for the suggestion, the Tables were merged, we tried our best to exclude repetition from the text 4. Section 3.3 Meteorological measurements needs to be more concise avoiding instrument names. Instruments names can be provided in a table and not repeated multiple times in the text. The section was edited according to the suggestions. Only those explanations of methods that were too long to be placed in a table were left in the text. 5. There are so many redundant figures. Figures 1, 2, and 6 can be merged. Figures 4 and 5 do not belong to the dataset

provided in this paper. I suggest removing them. What is "SMOW" on Figure 12? Figure 14, annual trends are not significant, remove the trend lines and equations. What is "w.e." in y-axis. Delete Figure 16, 17. Figure 11 can also be removed and instead be illustrated in a sentence in the text. The amount of Figures was reduced from 17 to 11. It was decided to leave the Figures 10 and 11 (previously 16 and 17) in the text as it gives an idea of what the meteorological dataset looks like that can be convenient to the readers to make a decision if it meets their needs. On Figure 7 (previously Figure 12) it would be more correct to name the axes as "δD, ‰' and "δ18O, ‰'. The Figure has been edited. The trends on the Figure 9 (previously Figure 14) are statistically significant according to the Spearman rank test at the 5% significance level. The p-values were added to the graph. w.e. is explained in the caption 6. How was snow differentiated from glacier in mass balance estimations? Explain. As the dataset doesn't contain the results of mass-balance calculation this part was removed from the text 7. Correct the full website address for the dataset access. The doi of the dataset is provided that uniquely identifies its URL. Editorial comments: Thank you for the suggestions, the text was corrected accordingly. Except for several cases when the authors' variant remained in the text: all over the manuscript: add "δ" before "18O" or "2H" or "D" isotopes to be consistent. Use "δËĘ18O" and not alternatives of 18O nor "δ18O". δD and δ18O is used in the text, when it means the concentrations of 18O and D expressed in the values of δ: δD = [(2H/1Hsample – 2H/1Hstandard)/2H/1Hstandard] $\times$1000‰ δ18O = [(18O/16Osample – 18O/16Ostandard)/18O/16Ostandard] $\times$ 1000‰Ṫhe explanation was added to the text.

Sincerely, Authors

Please also note the supplement to this comment:
https://www.earth-syst-sci-data-discuss.net/essd-2018-124/essd-2018-124-AC2-supplement.pdf

2018.