

Interactive comment on “The Rofental: a high Alpine research basin (1890 m – 3770 m a.s.l.) in the Ötztal Alps (Austria) with over 150 years of hydro-meteorological and glaciological observations” by Ulrich Strasser et al.

Ulrich Strasser et al.

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Author comment on

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C1

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Review of The Rofental: a high Alpine research basin (1890 m – 3770 m a.s.l.) in the Ötztal Alps (Austria) with over 150 years of hydrometeorological and glaciological observations

Thank You very much for Your valuable review. All Your suggestions contribute to the improvement of our work. In the preparation of a revised version of the manuscript we consider Your specific comments as follows:

page 1 line 27: "INARCH" - Please give some context to, or define INARCH... or cite it maybe. GEWEX INARCH project (<https://words.usask.ca/inarch>);

We added "International Network for Alpine Research Catchment Hydrology, <https://words.usask.ca/inarch>"

page 2 line 4: This whole paragraph is one sentence. I suggest splitting it up here to make it easier to read. split this sentence up. "... high Alpine environments. These research institutions are the ..."

We split up into three sentences

page 2 lines 12-13. put the acronyms after the glacier names.

Done

page 2 lines 13-14. remove "further on"

Done

page 2 line 15. define Vent as a town or village.

Done

page 2 line 17-18: "... become a core of..." and "...as such prolonging... (IHP)..." these

C2

need rewritten.

Now it reads ... "Combined Water, Ice and Heat Balance Project in the Rofental" became an official initiative of the UNESCO International Hydrological Decade (IHD 1964–1974) (Hoinkes et al. 1974). Later, it was continued as part of the UNESCO International Hydrological Program (IHP) (<http://en.unesco.org/themes/water-security/hydrology>).

page 4 line 4: remove "formed with"

Done

page 5 figure 3 caption: replace "evolutions" with "mean annual temperature"?

Done

page 5 line 11: Replace "Landuse" with "Landcover".

Done

page 7 line 15: should fore field be one word?

Yes, done

page 8 lines 8-9: update if possible with a doi.

Data preparation für ""Schwarzkögele"" will not be finished before the submission of a revised version of the manuscript. But as soon as the data is online the doi will be in the list of dois in our Pangaea repository parent

page 10 line 17: remove the word "yet" and "as"

Done

page 10 line 20: replace "of" with "from".

Done

C3

page 10 line 20: replace "which" with "that".

Done

page 10 line 23: how do you denote this in the dataset when instruments are completely snow covered?

We added: "In the data, such periods can be recognized by typical recordings of zero wind speed and increasing dampening of the other meteorological variables."

page 15 line 8: is "exemplarily" the right word?

We reformulated: "...are described here as an example for the many short and longer term monitoring activities..."
page 15 line 17: replace "origins in" with "originates as"

Done
page 16 figure 6: perhaps include units on a y axis label instead of just in the caption.

Done

page 17 throughout: If this is Lidar, you can just say Lidar and you don't have to define it at this point.

We deleted the definition

page 19 table 8 caption: seems like this should go in the acknowledgements, not a table footnote.

Done

page 19 acknowledgements: I would include specific grants and grant numbers here. (Personal preference)

Done

Please also note the supplement to this comment: <https://www.earth-syst-sci-data->

C4

discuss.net/essd-2017-85/essd-2017-85-RC1-supplement.pdf

Thank You!

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2017-85>, 2017.