Open Access

Earth System
Science
Data

Discussions

Interactive comment on "57 years (1960–2017) of snow and meteorological observations from a mid-altitude mountain site (Col de Porte, France, 1325 m alt.)" *by* Yves Lejeune et al.

Anonymous Referee #2

Received and published: 21 September 2018

Long term meteorological data are crucial for climate variability studies. It is of the utmost importance that these data are carefully collected, QCed, and stored, as well as fully documented (metadata). In that perspective, this paper presents a perfect example of the above, and it is important to support and promote such datasets to be available for the community.

I recommend to accept this paper, with minor corrections, which are listed here:

- page 1, line 6: Unit is missing after 0.21.

- p1, l7: .... that can mainly be .... for snow water equivalent

C1

- p1, l9: Reduction of 39 cm in the mean snow depth, but what does it represent in %age of the mean total snow depth?

- p1, l17: required to run and evaluate

- p2, l15: (i) to extend

- p2, l16: (ii) to provide .... (iii) to provide

- p2, l20: I do not understand this sentence, and could not find underlined text in the paper => remove (?)

- p8, l7: Explain why the in-situ data are missing during Summer between 2011 and 2015

- p9, l5-10: The process of the correction is not "clear and clean" to me. Some information are missing: what is the Impact of a 10 W/m2 shift (or error) on the snow pack model? how does the final curve in Fig. 5 Looks like? is monthly average enough to assess the quality of the data (variation can be much higher on an hourly basis).

- Table 2: CGR4 (and not CRG4)

- p10, l3: What are the relevant sources of data (list)?

p10, l6-7: If wind data used to correct for undercatch is different, then the correction factors must also be different, right?

- p14, l4: .... not corrected for undercatch, in contrary ....

- p14, l5: .... by the same sensor used for rain and snow datasets

- p14, l6: Explain why the undercatch (and not the undercatch correction?) is mitigated when using the PG2000

- Table 5: For clarity, it should be moved in section 3.2 (where it is referenced)

- p20, l13: Explain why the mean deviation is higher in summer (shading, surface

C2

properties?)

- I miss a short conclusion at the end of the paper. Few words summarizing the work and the dataset available.

C3