

This paper documents an excellent and important dataset for analyzing mountain snow processes. I highly recommend the publication of this paper and have only minor comments below. The only detractions I have in the score above on originality stem from the fact that some of this is an extension of a previous paper (albeit over a long enough period and with enough new data that it is well worth publishing), and on presentation quality there are a few english grammar changes that could be updated in the proof stage.

*Thank you very much for the thorough review of our manuscript! We answer the questions point by point in the following and explain the improvements we will make based on the respective issue/suggestion:*

1) In the context of alpine catchment hydrology, please document the vegetation cover (and lack there of) in most of this basin, there are trees and grasses at lower elevations, if not where these data were collected.

*We will add information about vegetation cover in the manuscript and include it in Fig. 1 (map of catchment and stations).*

2) Is there a flag provided in the data to note times when instruments are covered?

*The main instruments are rarely covered by snow. The wind and radiation sensors are sometimes covered or frozen (wind) for a short period. However, it is difficult to identify if - in each situation with suspicious measurements - the sensors are frozen, covered by snow, or if there is a logger problem. Therefore, values are just set to "missing value" in all these situations.*

3) Can you document how well the point observations of snow depth represent the surrounding snow depth at all sites? Clearly at the exposed/sheltered site pair, there is a lot of variability. Is that true at all sites?

*There is much less variability at the Proviantdepot and Latschbloder station compared to the two Bella Vista sites. The former two have been positioned to best represent their surroundings. However, at Latschbloder, a strong interannual variability of snow depth is discernible. It is generally difficult to quantify the variability as well as the representability of each station. However, we will add more description about how the stations are situated in the terrain and to what degree they should represent their surroundings regarding snow depth variability. We will add these explanations in Sects. 4 and 7.*

4) Are the 10-minute data an average of higher frequency measurements over the prior 10 minutes? The surrounding +/- 5 min period? or are they instantaneous?

*Yes, exactly. The 10-minute data are the result of high frequency measurements of the prior 10 minutes that are processed in the logger. Depending on the measured variable, the logger writes average (e.g. temperatures, rel. humidity, snow depth, SWE, radiation), total (precipitation) or maximum (wind gust). The higher frequency of measurement is 1 minute, except for wind speed and direction, where it is 1 second. We will add this information to the manuscript and to Tabs. 1,2, and 3.*

5) When replacing sensors, was any cross-validation/comparison made between old and new sensors?

*A validation of the new sensors was performed by the manufacturer before installation. The old sensors were replaced by the new ones, so we didn't do such a comparison on site.*

6) What is done as part of the "thorough check for obvious errors"? Is this primarily thresholds and change thresholds? Are the "corrected" values flagged as such?

*Exactly, the thorough check is based on thresholds and on (non)-change thresholds (e.g. wind speeds staying constant (frozen sensor), rel. hum. >100%, etc.). The respective time steps are not "corrected" but set to and marked as "missing value". We will add more details on this in Sect. 5.1.*

I enjoyed the evaluation of more experimental measurements of snow flux, snow density, and drift occurrence. The authors might want to look at a similar dataset that was recently published and included snow particle flux as well as ~5-minute repeat scans with terrestrial scanning lidar during many such blowing snow events (Lundquist et al 2024 <https://doi.org/10.1175/BAMS-D-23-0191.1>)

*We will include a reference to the very interesting publication and data in the introduction and Sect. 7.*