

# ***Interactive comment on “Hydrometeorological Data from a Remotely Operated Multi- Parameter Station network in Central Asia” by Cornelia Zech et al.***

## **Anonymous Referee #3**

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This paper presents a detailed description of a station network consisting of 18 stations, which were installed by the German Research Center for Geosciences, Potsdam, Germany and operated today in close collaboration with the Central Asian Institute for Applied Geosciences in Bishkek, Kyrgyzstan. The network is covering several countries in Central Asia. The data of this network is free of charge, real time and online available.

General comments: The paper has a clear structure and explains in detail the installed sensors and the data retrieval. This paper presents a very important dataset generated in a data poor region of the world. Until the 1990s, Central Asia had a very good and

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extensive network of hydro-meteorological stations. However, after the collapse of the Soviet Union, most stations in the network were abandoned. Therefore, all efforts to (re-)establish and improve the hydrometeorological station network in all Central Asian countries is very much appreciated, particularly the high-mountain stations, because the sensitive cryospheric components such as snow, glaciers and permafrost are currently reacting very sensitively to the atmospheric warming and the development of forecasting tools is only possible when having well validated and calibrated models at hand. These data provide, therefore, a fundamental base for any sound model approaches. In addition, it is a particular asset that the presented data is free of charge, in contrast to the very expensive data when ordering it at the official Hydromet Services.

Specific comments:

- Please provide some more details for the individual sensors used: in general error ranges of the calibrated sensors or e.g. radiation measurement: range of wave length for short wave and long wave radiation sensors.
- Line 188: please delete 'the energy balance between' because the word energy balance should be only used for the total energy balance including all energy fluxes such as the turbulent fluxes and/or ground heat fluxes.
- Line 230: you describe in detail the Snow Pack Analyser but you not describe the above mentioned Cosmic-Ray Neutron Sensing. At which station you operated this system? What are your experiences with this system?

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