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Interactive comment on "Meteorological observations collected during the Storms and Precipitation Across the continental Divide Experiment (SPADE), April–June 2019" *by* Julie M. Thériault et al.

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The data paper by Thériault et al. provides a description of the data collected at 5 locations during the 2019 SPADE campaign. The project collected meteorological observations on either side of the continental divide in the Canadian Rocky Mountains in Southwest Alberta and Southeast British Columbia. The purpose of the dataset is the characterization of atmospheric processes during precipitation events as storm systems interact with the orography on either side of the continental divide. Collected data are from Doppler LiDARSs, micro rain radars, optical disdrometers, temperature and

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humidity sensors, precipitation gauges, and microphotography.

Overall, the data description is well written and the data are easily accessible and well organized on the data repository. The authors provide a README file on the repository that describes how the data are organized and formatted and is a useful (and necessary) supplement to the manuscript. In my opinion, the dataset is unique and potentially useful for further analysis related to atmospheric/precipitation processes in this complex region.

Before publication, the authors need to address the following general concerns:

1) I found a couple of things lacking in Section 3 (Data collection) that should be addressed. The most significant is the lack of discussion about the data quality control. I found a remark somewhat buried in the README file on the repository stating that "most" files have not been processed but it is unclear if this means that no quality control has occurred in "most" files. This needs to be better stated in the manuscript, either as a general paragraph, or in the sections that describe the individual instruments/systems. Another useful piece of information that should be included where possible and where appropriate is the description of the accuracy and/or uncertainty of the measurements. These have substantial value to data users.

2) An instrument\site table would be useful in Section 3 indicating which instruments are installed at each site and an indication as to what each instrument measures.

3) Unless I missed it, I don't see mention anywhere in the manuscript or on the repository about the time zone for the date timestamp. I realize that discussion of date ranges, etc in the manuscript are stated in UTC but the time zone of the timestamp should be explicitly stated in both the manuscript and the metadata on the repository.

More specific comments and suggested revisions are embedded in the manuscript.

Please also note the supplement to this comment:

https://essd.copernicus.org/preprints/essd-2020-160/essd-2020-160-RC1-supplement.pdf

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