

Interactive comment on “Vertical cloud structure of warm conveyor belts – a comparison and evaluation of ERA5 reanalyses, CloudSat and CALIPSO data” by Hanin Binder et al.

Josué Gehring (Referee)

josue.gehring@epfl.ch

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General comments: The authors investigate the cloud and precipitation associated with WCBs during nine Northern Hemisphere winters with ERA5 reanalyses, CloudSat and CALIPSO data. They use ERA5 to not only depict the meteorological conditions associated with these WCB-produced cloud systems, but also to compare its performance with the measurements. They provide novel findings on the climatology of clouds and precipitation associated with WCBs and their corresponding thermodynamical and dynamical fields. In particular, the small- and mesoscale structures depicted with the satellite measurements are unprecedented. I strongly support the conclusions of this

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study and its publication in Weather and Climate Dynamics, subject to minor revisions. The complete review is available in the supplement.

Please also note the supplement to this comment:

<https://wcd.copernicus.org/preprints/wcd-2020-26/wcd-2020-26-RC1-supplement.pdf>

Interactive comment on Weather Clim. Dynam. Discuss., <https://doi.org/10.5194/wcd-2020-26>, 2020.

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