

Interactive comment on “Cloud_cci ATSR-2 and AATSR dataset version 3: a 17-year climatology of global cloud and radiation properties” by Caroline A. Poulsen et al.

Anonymous Referee #2

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This paper describes a new version of a cloud and radiative flux data set. Overall, I don't see any major problems with the paper and judge it appropriate for publication after consideration of the minor comments I list below.

In Figures 1 and 2, I recommend adding a third column which plots differences between the versions.

Table 3 contains a bunch of metrics that I don't know what they are. I think it would be good to give a one-sentence definition of KSS, hit rate, and POD.

Line 181 (and rest of paragraph): I don't know what “cost” is referring to, so “cost less than 5” makes no sense.

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Line 188: they state here that thin multi-layer clouds are retrieved as the weighted average of the two layers. It would be useful to say if this situation is flagged in the data or if there's some mechanism to screen the data for this.

From line 221 to the end of the section: they discuss here the uncertainty of the radiative flux estimates. Does uncertainty here refer to precision or accuracy? Also, are the values given for CERES (5.4 and 4.6 W/m²) the uncertainty for the global average or at a grid point?

Captions of Fig. 4 and 5. The captions refer to “forcing”, but they really mean are fluxes. This should be changed.

Interactive comment on Earth Syst. Sci. Data Discuss., <https://doi.org/10.5194/essd-2019-217>, 2019.

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