

Response to Topic Editor Decision

The editors's remarks are *italicized*, while our responses are presented in normal text. **Blue text** is used to cite passages from the manuscript and to track the changes made from the original to the revised manuscript. References cited in the blue text can be found in the revised manuscript. Line numbers refer to the clean version of the revised manuscript.

TOPIC EDITOR

Dear authors,

Thank you for addressing the reviewers' comments and revising your manuscript accordingly.

I think there is only one point left that might require a little bit more explanation. I refer to the first comment of reviewer #1.

I understand your point that a potential overfitting in the radiation estimation is only one out of many sources of uncertainties. However, the reviewer made a point here and I think it would be good to add it to your manuscript, e.g., by adding some sources of uncertainty in brackets, including this aspect. You mentioned some, e.g. the humidity correction. If you have other ideas, please feel free to propose some changes.

Best regards,

Volker Grewe

- We have added example sources of uncertainty to be addressed in future work:
 - [Main text: Lines 566 – 568] “**Future versions of the grid-based CoCiP are also expected to be prioritised towards: (i) evaluating and accounting for different uncertainty sources (e.g. global humidity correction, aircraft performance estimates, engine particle emissions and ice nucleation efficacy, CoCiP model parameters, and parametric RF model) to produce a more comprehensive probabilistic forecast of the grid-based CoCiP (Platt et al., 2024);**”