

Interactive comment on “The Cloud Feedback Model Intercomparison Project (CFMIP) contribution to CMIP6” by Mark J. Webb et al.

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This paper provides a clear description of the design of CFMIP3/CMIP6. The proposed experiments and outputs are interesting and will be important contributions to CMIP6. I have only a few minor comments.

I assume that all the CFMIP experiments are CO₂ concentration driven. Should ESMs turn off dynamic vegetation and chemistry schemes?

Line 213 “Sea ice and SSTs under sea ice remain the same as in the amip DECK experiment.”: How should we set SSTs in grids with 50% concentration of sea ice?

Line 263 “As such we hope that these experiments will provide useful synergies with Palaeoclimate Model Intercomparison Project (PMIP)”.: If there are any experiments

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that are directly related to the CFMIP experiments, please specify.

Line 302 “cloud-radiative effects are switched off in the longwave part of the radiation code”.: Is the shortwave part retained?

2.4 Abrupt +/-4% solar forced runs: Not only TSI but also spectral solar irradiance (SSI) are provided for CMIP6 (<http://solarisheppa.geomar.de/cmip6>). I assume that many ESMs use the SSI data for their DECK experiments. How to add +/-4% solar forcing on SSI?

Line 411 piSST: Do we use the monthly mean values of each year of piControl? Monthly mean climatology would lead to better S/N.

Line 550 “allowing a detailed evaluation clouds”.: allowing a detailed evaluation of clouds?

Hope this helps.

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