

Interactive comment on “Total cloud cover from satellite observations and climate models” by P. Probst et al.

Anonymous Referee #2

Received and published: 20 October 2010

Review on: Total cloud cover from satellite observations and climate models

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Journal: Atmos. Chem. Phys. Discuss.

The manuscript compares observed cloud covers (cloud cover fraction, CF) with simulated data in 21 climate models. The authors compare global CF, zonal means, mid-latitudes and tropical averages, as well as seasonal cycles. The comparison reveals severe discrepancies between model and observational results.

The study is a useful contribution to model assessment and is certainly of interest for the development of the models included. Unfortunately, the manuscript resembles a

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technical report. To address a more general readership, the manuscript should be extended by a more climatological discussion:

In addition to the latitude belts, a land/ocean comparison would be useful.

Why is one model (CNRM-CM3, in part also CSIRO versions) superior to all other models?

What are the consequences for the interpretation of scenario simulations?

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 21023, 2010.