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Interactive Comment

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

Authors: Pamela Probst, Rolando Rizzi, Ennio Tosi, Valerio Lucarini, and Tiziano Maestri

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, midlatitudes 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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Interactive Discussion

Discussion Paper



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?

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Interactive Comment

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