Reviewer #5 Evaluations: Recommendation: Reject Grammar improvements needed: No Commentary: No Willing to review a revision: No Do you have a potential conflict of interest?(Required): No Annotated: No

Reviewer #5 (Comments to Author):

Although the author has added some more analysis of shortwave and ozone forcings, the concerns from the previous review have not been addressed.

1) Taking Eq (6) as an emulation of how models predict the warming effect of the radiative forcing, we can then use Eq (6) to predict the warming due to doubling CO2 for the models. Because there is no uncertainties as large as +/-4W/m^2 in estimating the extra radiative forcing from the increased amount of CO2,

this prediction should not have error as large as +/-15C.

2) +/-4W/m^2 uncertainties in the longwave cloud radiative forcing due to cloud fraction errors in current GCMs

are in general model biases instead of random errors. These biases are usually balanced by other biases, e.g., in the shortwave

radiative effects from clouds so as to keep a balanced energy as total.

3) When discussing prediction of air temperature, it is not only the thermal energy flux that is relevant. The reflected shortwave radiation is

very important too; less downward shortwave to surface can cool down the surface and thus the air. Actually, current climate sensitivity spread has a lot to do with the shortwave radiative feedback from low clouds.

The models can have biases in both thermal energy flux and reflected shortwave flux, but unlikely to have a large bias in the total flux at TOA.

Therefore, in considering the prediction of air temperature, we must consider both long-wave and short-wave fluxes together.

The cross term (sigma_u,v)^2*dx/du*dx/dv will be negative. Adding contribution from shortwave flux reduces the total error obtained using the propagation method. Note that it is confusing to have expression (sigma_u,v)^2*dx/du*dx/dv in Eq 1, because (sigma_u,v)^2 may be negative in case of a negative correlation.