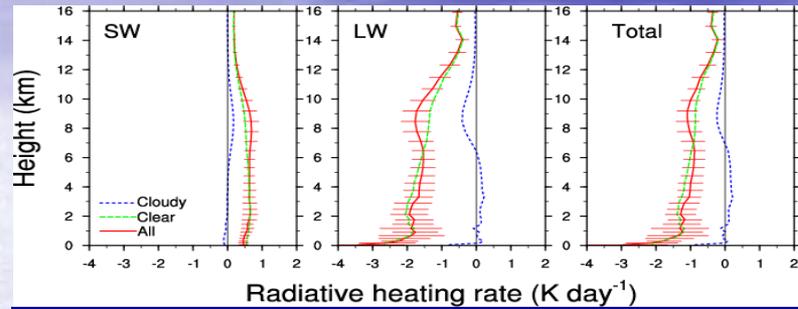


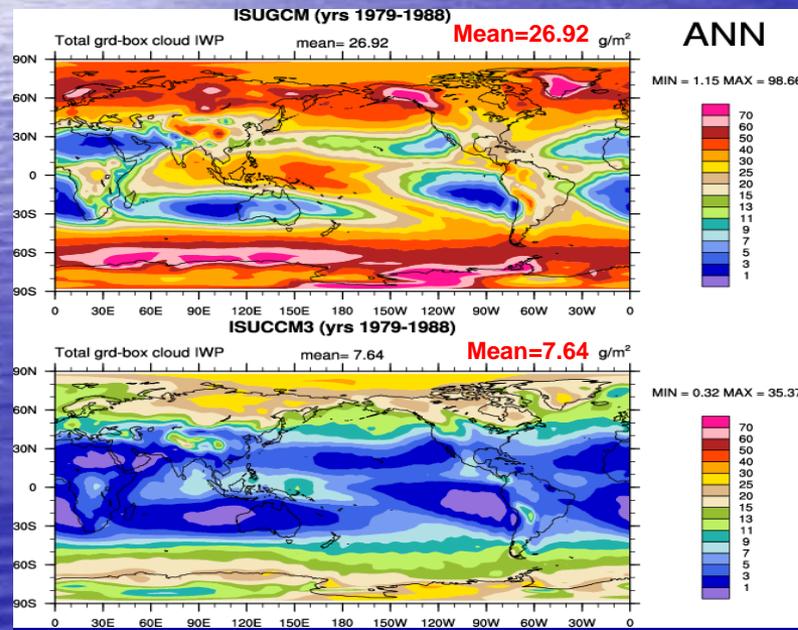
Understanding and Improving CRM and GCM Simulations of Cloud Systems with ARM Observations

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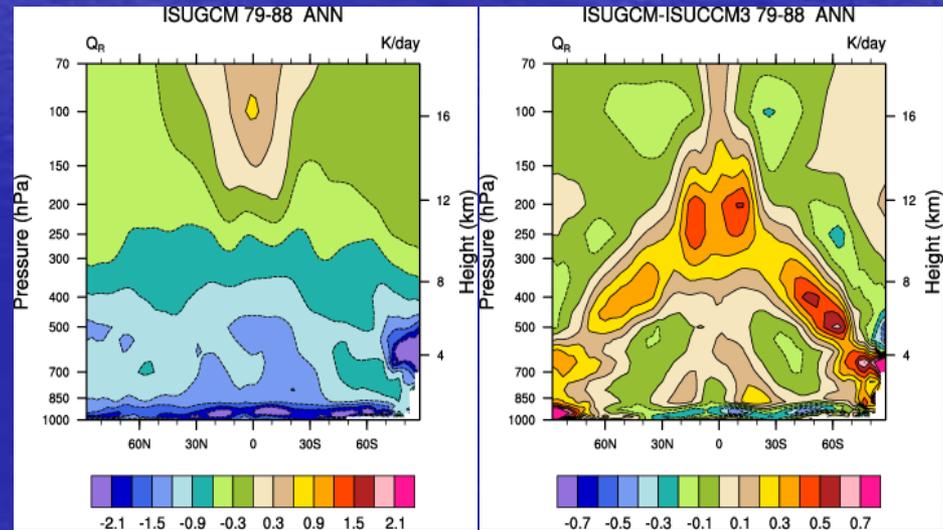


CRM ANN Radiative Heating Rate ($K day^{-1}$)

1. Produce thermodynamically and dynamically consistent multi-year cloud and radiative properties over SGP and TWP sites (Wu, Park, and Min 2008, JAS)
2. Improve the GCM simulation of convection, clouds and radiative heating rates using CRM simulations and ARM observations (Wu et al. 2007, GRL)



GCM ANN Ice Water Path ($g m^{-2}$)



GCM ANN Radiative Heating Rate ($K day^{-1}$)