

Effects of Thermodynamics, Dynamics and Aerosols on Cirrus Clouds Based on In Situ Observations and NCAR CAM6 Model

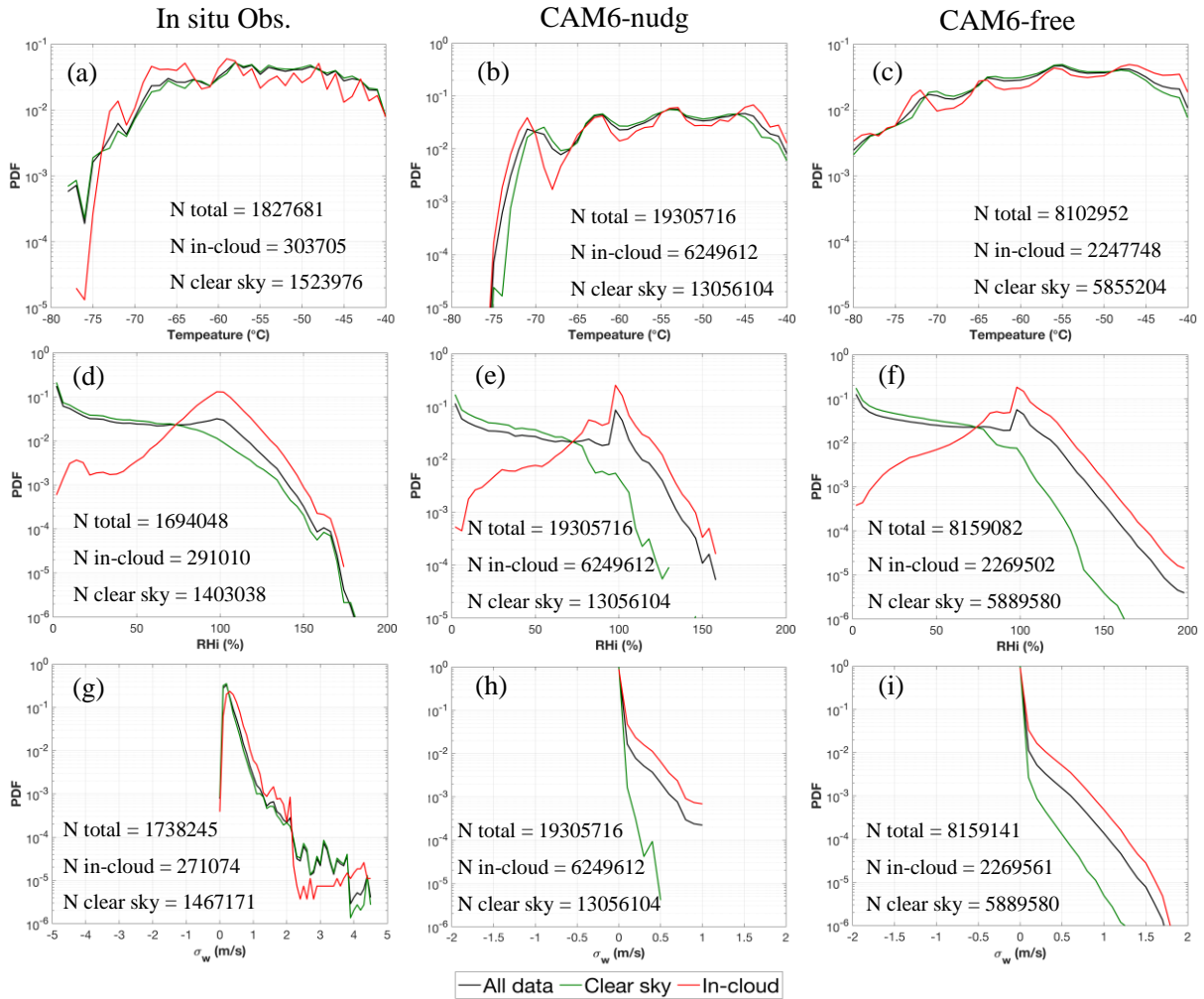
Ryan Patnaude¹, Minghui Diao¹, Xiaohong Liu², Suqian Chu³

¹Department of Meteorology and Climate Science, San Jose State University, San Jose, 95192, USA

5 ²Department of Atmospheric Sciences, Texas A&M University, College Station, 77843, USA,

³Department of Atmospheric Science, University of Wyoming, Laramie, 82071, USA

Correspondence to: Minghui Diao (minghui.diao@sjsu.edu)



10 **Figure S1.** Probability density functions (PDFs) of (a – c) temperature, (d – f) RH_i and (g – i) σ_w for in situ observations (left column), CAM6-nudg (middle) and CAM6-free (right). The observations are identical to those in Figure 10. But different from Figure 10 that selects ice particles > 62.5 μm , the simulation data in this figure select ice particles > 1 μm . Using this lower size cut-off for ice particles increases (decreases) the number of in-cloud (clear-sky) simulation samples, yet very minor changes are seen in the PDFs of temperature, RH_i, and σ_w for the two simulations.