



Use of ISS-SMILES ice cloud diurnal cycle measurements for climate model evaluations

- To date, few direct measurements of ice cloud diurnal cycle have been available to constrain climate model simulations.
- Using ISS-SMILES observations as a reference, we found a large spread of modeled ice cloud diurnal cycle phase lag, amplitude, and pattern similarity over both land and ocean.
- These deficiencies in modeled diurnal cycle could affect model simulated climate on longer timescales; thus current and future global ice cloud diurnal cycle measurements are critically needed.
- Citation: Jiang et al. Evaluating the diurnal cycle of upper tropospheric ice clouds in climate models using SMILES observations, *J. Atmos. Sci.*, in press, 2014. Supported by ROSES MAP, NDOA, NEWS, and US PI.

