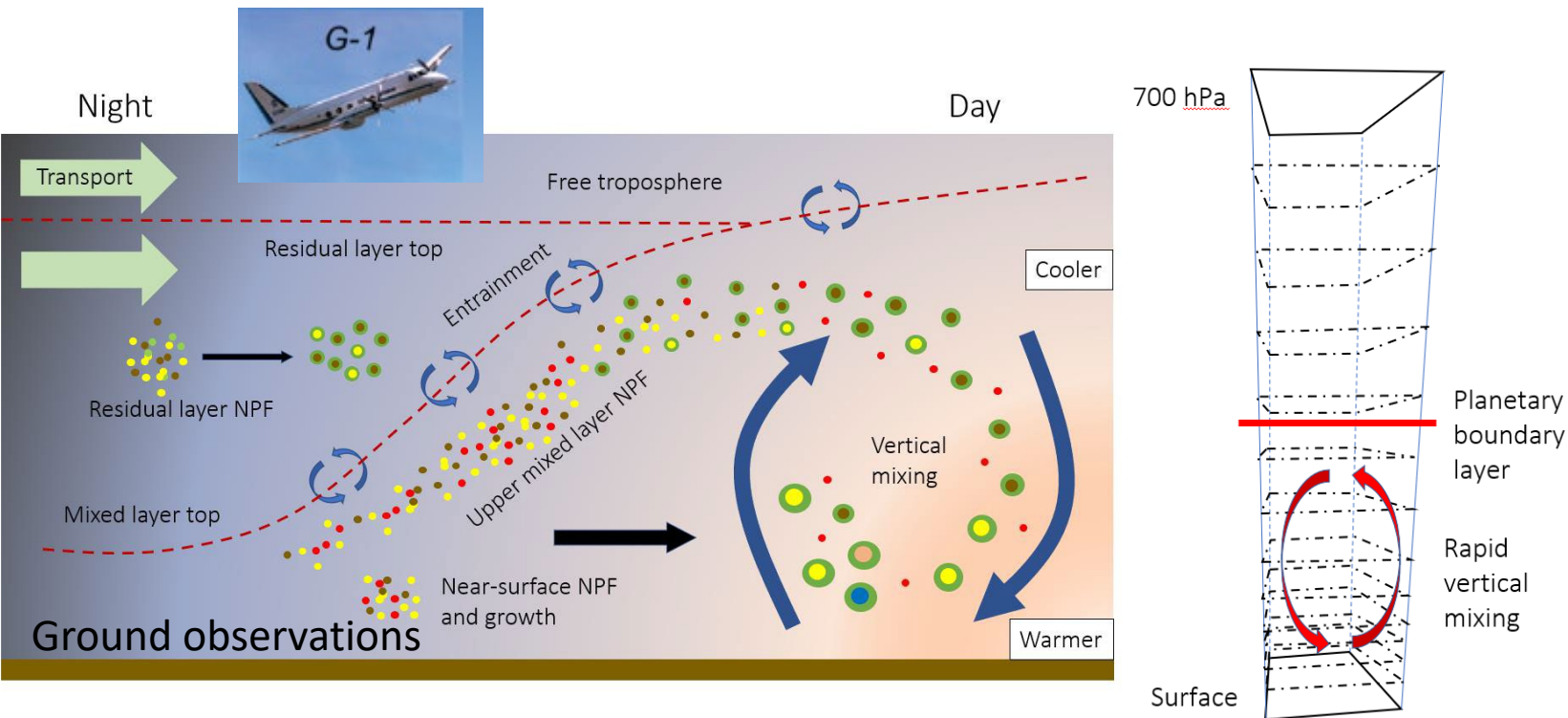


Examining the vertical profile of NPF at SGP

Samuel E. O'Donnell, Ali Akherati, Yicong He, Anna L. Hodshire, John E. Shilling, Chongai Kuang, Jerome D. Fast, Fan Mei, Siegfried Schobesberger, Joel A. Thornton, James N. Smith, Shantanu H. Jathar, Jeffrey R. Pierce

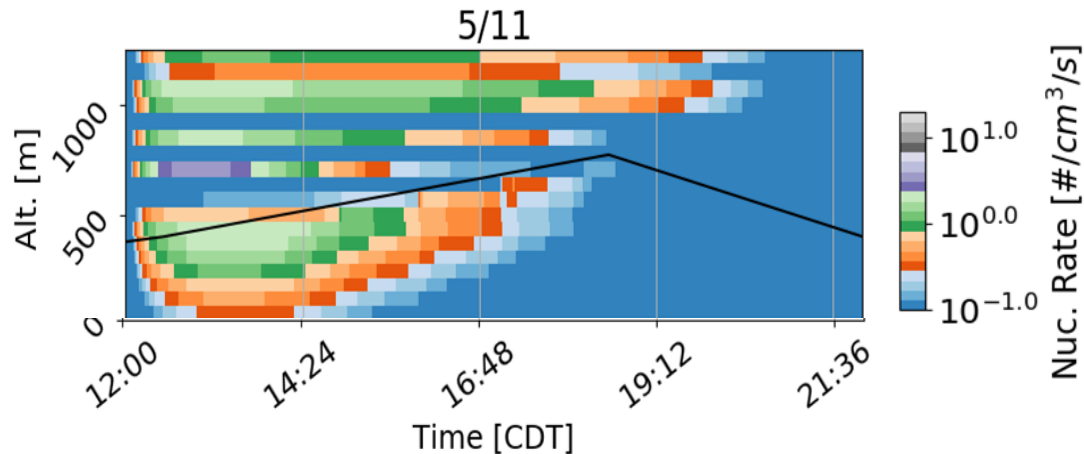
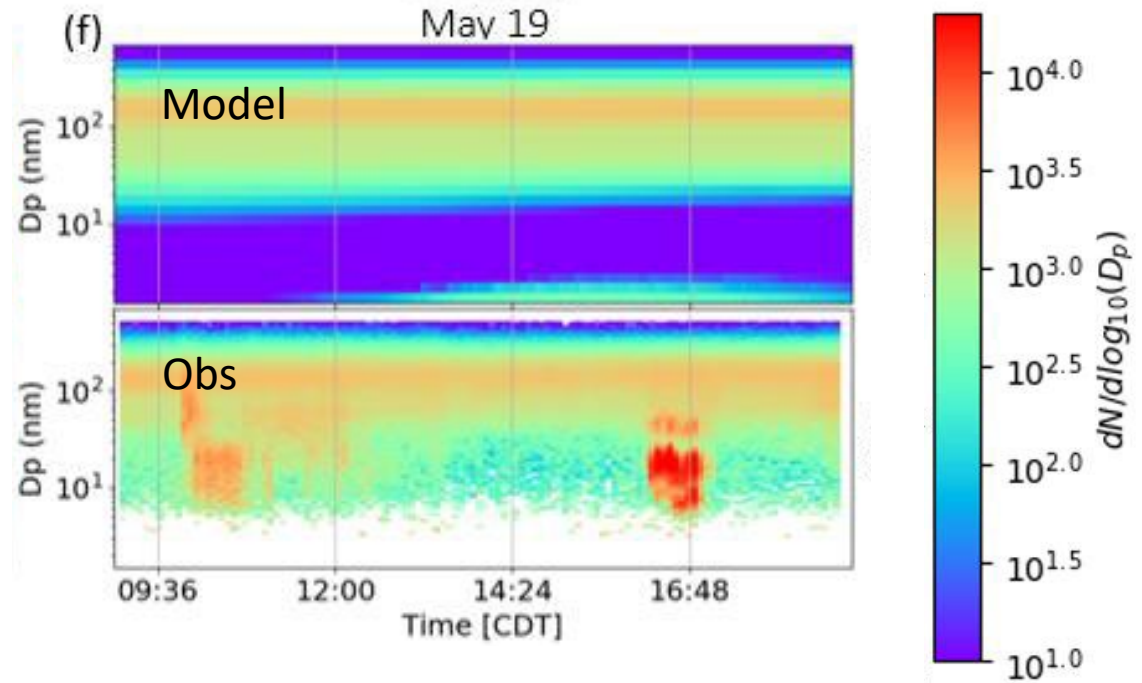
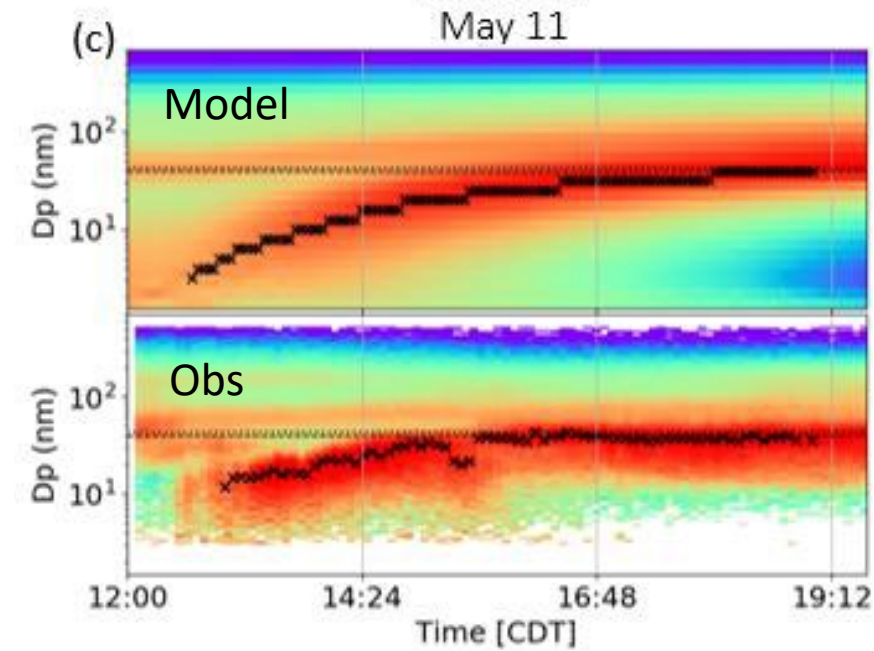
In review, JGR

HI-SCALE Observations at SGP + Column model of aerosol microphysics and chemistry



1. Initiate the model with observed pre-nucleation gases and aerosols.
2. Evaluate if model predicts the time evolution of aerosols.
3. Examine drivers of the vertical profile of nucleation.

Model predicts nucleation events and non-nucleation events at the surface



Estimates vertical profile of nucleation and aerosols

Most important factors influencing the vertical profile of nucleation *in the model*.

