8.4 Investigating cloud ice nucleation in the Thompson aerosol-aware microphysics scheme.

Lee, Jared A., Trude Eidhammer, and Greg Thompson, *National Center for Atmospheric Research*

In the Thompson aerosol-aware microphysics scheme, cloud droplet activation and ice nucleation are both dependent on aerosol number concentration. Several sensitivity tests were conducted for droplet activation of water-friendly aerosols (NWFA) in Thompson and Eidhammer (2014). Here we give a status update on sensitivity tests that we are performing with WRF for ice nucleation and droplet freezing by ice-friendly aerosols (NIFA). The issue we are attempting to remedy is that of an insufficient number and/or thickness of high ice clouds compared to satellite observations. The case study we focus on for these sensitivity tests is an atmospheric river event over the northeastern Pacific Ocean and western United States, on 15-16 February 2011 during the CalWater 2011 campaign.