



Simulating the effects of biomass burning aerosols on clouds using data from the SAMBBA field experiment and a large eddy model.

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The South American Biomass Burning Analysis (SAMBBA) project investigates the effect of Biomass Burning Aerosols (BBA) on climate and weather using aircraft observations and modelling. A Large Eddy Model (LEM) has been run based on measurements taken during the aircraft campaign over Brazil in September/October 2012 with the aim of investigating the radiative effects of BBA on clouds. The results from the model are compared with the measurements and with satellite data. We analyse the influence of competing microphysical and radiative effects on shallow clouds and show the effect of varying aerosol properties on cloud burn-off.