



Behavior of WRF PBL schemes and land-surface models in 1D simulations during BAMEX

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We will present a study in which the WRF planetary boundary layer (PBL) and land-surface schemes are compared with observations collected during BAMEX field campaign. In this study, all the WRF PBL schemes (YSU, MYJ, and MRF) are coupled with the land-surface schemes (the SLAB coupled with a bucket model, the NOAH and the RUC land-surface models) and compared with each other in the 1-D WRF simulations. These simulations are initialized with vertical profiles of wind, temperature, mixing ratio, and soil temperature and moisture that are obtained from observations. External forcings for the 1-D WRF simulations, including short- and long-wave radiation and geostrophic wind and derived from observations and weather analyses. 12-hourly simulations are performed to examine how the PBL forecasts with varying physics differ in terms of winds, temperature, moisture and fluxes. The focus of the study is on the assessment of the averaged performance of the three PBL schemes under the same atmospheric and surface forcings.