



Meso-NH regional simulations for the TROCCINOX campaigns: cloud model evaluation against satellite observations and lightning NO_x production

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During the TROCCINOX 2004 and 2005 campaigns, the Laboratoire d'Aerologie produced once a day a 48-h Meso-NH forecast. For the real-time purpose, the model set-up is in a regional mode with a grid-mesh of 30 km. Therefore the model includes a parameterization for shallow and deep subgrid-scale convective transport and precipitation. In 2005, the model also includes a parameterization of lightning NO_x coupled to the deep convection scheme. The two sets of 30 simulations obtained during the campaigns have been objectively evaluated against GOES-E and METEOSAT-8 observations of radiances using the model-to-satellite approach. The representation of the cloud and precipitation fields will be discussed as well as the passive evolution of lightning NO_x field.