



Clouds and water in the tropical tropopause layer: a comparison between satellite data and GEM-AQ simulations

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The deep convection is of a primary importance in regulating the structure and the composition of the tropical tropopause layer [TTL]. The location and the intensity of convection are both responsible for the upper level humidity and the chemical composition of TTL. Models skill in reproducing water vapor mixing ratio at those altitude are both weak and crucial for any climate oriented study. We present a comparison between the measurements taken by of MLS on board of AURA and the simulations performed with of GEM-AQ model. GEM-AQ is based on the Canadian operational model and includes online chemical processes for 49 gas phase species and 5 aerosol types. A discussion on the data, on the model performance and on the sensitivity of the results on the convective parameterization adopted will be shown.