



## **Observations and analysis of small-scale motions by Aircraft in the tropical UT-LS during the Troccinox 2004 field campaign**

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Simultaneous observations of chemical species and aerosol from the instrumented aircraft show the presence of small-scale disturbances at tropopause heights (18 km). Measurements were made onboard the M55 Geophysica Aircraft during the Troccinox Campaign, held in Aracatuba, Brasil (22° N) in January-February 2004. We identify the origin of the disturbances with the analysis of the stability of UT-LS layers and satellite data to identify convective regions and the cloud top height. Moreover we discuss the potential impact on mass-exchange between stratosphere and stratosphere of the flux associated to dynamical disturbances.