



## **Some results of *in situ* water vapour and ozone measurements in the tropical UTLS on board of high-altitude aircraft M-55 “Geophysica”**

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Water vapour and ozone mixing ratios in UTLS have been measured during aircraft missions in the frame of APE-THESEO (western equatorial Indian Ocean in February and March 1999), TROCCINOX (Brazil, Aracatuba in February 2004) and SCOUT-O3 (Australia, Darwin in December 2005). Optical fluorescent hygrometer FLASH was used for water vapour measurements. Hemiluminescent fast ozone analyzer (FOZAN) integrated with electrochemical cell (ECC) were used for ozone measurements.

The obtained data are considered in the aspects of stratosphere-troposphere exchange, tropopause and hygropause variability, entrance of the humid tropospheric air into the stratosphere.