Geophysical Research Abstracts, Vol. 8, 07935, 2006
SRef-ID: 1607-7962/gra/EGU06-A-07935

The tropical tropopause layer and lower stratosphere as sounded with MIPAS-B: First results.

H. Oelhaf, F. Friedl-Vallon, A. Kleinert, A. Lengel,
G. Maucher, H. Nordmeyer, G. Wetzel, and A. Wiegele

Institut für Meteorologie und Klimaforschung,
Forschungszentrum Karlsruhe / Universität Karlsruhe,
Postfach 3640, 76021 Karlsruhe, Germany

In the framework of the ENVISAT validation programme; the first flight of MIPAS-B in the tropics was executed from Teresina/Brazil ($\sim 5^{\circ}$ S) in June 2005. Thanks to the stratospheric wind system governed by the QBO, a long (boomerang) flight could be established. This allowed, apart from the validation tasks, numerous dedicated scientific studies such as time-resolved measurements around sunrise, 3D cloud surveys below 20 km, pointing at the outflow of convective systems, and fine sampling of the TTL. The measurements covered latitudes from about 0 to 10S. The paper will present an overview of the observations performed. The focus will be on the distribution of nitrogen constituents. The relevance of the nitrogen chemistry in the tropics will be put into perspective with observations performed in middle and high latitudes.