

Gravity wave signatures in the stratosphere over Equator

C. M. Wrasse(1) , H. Takahashi(1), J. Fechine(1), A. F. Medeiros(2), J. Wickert(3), C. M. Denardini(1)

(1) Instituto Nacional de Pesquisas Espaciais, INPE, Brazil. (2) Universidade Federal de Campina Grande, UFCG, Brazil. (3) The German Research Center for Earth Sciences, GFZ, Germany

Gravity wave activities in the stratosphere are deduced from GPS radio occultation temperature profiles obtained by CHAMP satellite. From the temperature data potential energy profiles are deduced and used to study the gravity wave activity in the stratosphere. The results obtained over South America showed a seasonal variation of the gravity waves, with a major activity during the spring and autumn. An annual variation in the gravity wave activity was also observed, with the maximum occurrence in 2002 and 2004 and minimum during 2003 and 2005. These results will be compared with the gravity wave activity around the Equator for the last 4 years.