



STUDY ABOUT THE MORPHOLOGY OF THE TROPOPAUSE OVER NATAL-RN FROM RADIOSONDE DATA OF METEOROLOGICAL BALLOONS

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ABSTRACT

The tropopause region is an important factor for the Earth climate, generating considerable interest in terms of global energy balance. Bearing this in mind, this work presents a detailed study of the behavior of the tropopause, about temperature and altitude, over Natal-RN. It is analyzed radiosonde data of meteorological balloons launched by the Center of Launches of Barreira do Inferno (CLBI), during the years from 2010 to 2014. It was verified 1849 cases, which the minimum temperatures of the tropopause were compared with the results provided by the MSIS-90 model. The preliminary results indicated that the average temperatures provided by the model always have higher values, however not exceeding the amplitude of 10 K of difference. Also was possible to observe there is a variation in the height of the base of this region, being lower than that provided by the model, with a difference of approximately 1 km. The results obtained are of great importance for studies in climate sciences and aeronomy, since they can serve as a basis for possible and future changes in the model, making possible new updates.

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