



STUDY OF THE MORPHOLOGY OF NA AND K LAYERS ON MLT REGION

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ABSTRACT

In this work, we analyze simultaneous observation of mesopause sodium (Na) and potassium (K) layer by a dual beam LIDAR at São José Dos Campos (23.1°S, 45.9°W). The present study concerns mainly on some specific cases showing distinct morphology of the metal layers. Also, a statistics is presented using all data obtained from November 2016 to December 2017. In addition, we have analyzed the period between 2007-2009 of Na LIDAR temperature and density data from the other LIDAR in the same location. The results show no clear seasonal trend of these different layers, although a large data series should be used for this conclusion. We discuss here the possible wave interaction in the formation of these distinct layers, Ionosonde type CADI data showing the ionospheric E region, and mesospheric winds were also discussed.