

# **Long-term variabilities of the 6.5-day planetary wave in the low latitude mesopause region**

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Long-term wind measurements made between 1993 and 2005 using the medium frequency radar located at Tirunelveli ( $8.7^{\circ}\text{N}$ ,  $77.8^{\circ}\text{E}$ ), a tropical station in India, are made use of in this study to delineate the long-term variabilities of the 6.5-day planetary wave, a dominant dynamical feature in the low latitude mesopause region. The prominent variations of the 6.5-day wave activity lie in semi-annual and inter-annual time scales. Possible source mechanisms for the observed wave activity are examined in this work. Results from this study are expected to be valuable for comparison with studies made elsewhere.