

TEMPERATURE RESPONSE TO SOLAR ACTIVITY IN THE MLT-REGION – AN UPDATE

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The influence of long term solar activity on the vertical structure of temperature and its separation from global change signals has always been a challenge in recent time with available shorter length data sets. A global picture of the temperature response to solar activity in the mesosphere and lower thermospheric region has recently been presented in a review article (Beig et al., Rev. Geophys., 2008) which still need to be updated with time. Recent investigations have revealed the presence of a solar component in mesospheric temperature in several data sets but not as strong as thought earlier and in some cases no significant solar signal is found. There appears to be a strong latitudinal variation which minimizes towards the poles. This paper update to the above review paper of solar response in temperature structure of the MLT-region based on modeling and observational data.

Solar response, mesosphere, thermosphere

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