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Peculiarities of upper atmosphere temperature variation after meteor showers

L. Kozak (1), A. Salivonov (1)

(1) Kyiv National Taras Shevchenko University, Physics Faculty, Kyiv, Ukraine (kozak@univ.kiev.ua)

The values of temperature of the upper Earth's atmosphere during 1993 obtained with the device WINDII installed onboard the satellite UARS are considered. The measurements made in daytime and at night were processed separately. To avoid the latitudinal variation the data sample was separated onto sub samples inside thin latitudinal ranges. An analysis of the night measurements shows some increase of the temperature at altitude of near 90 km in the periods ˜100-130, ˜190-230 and ˜300-340 days during the year. Comparison of obtained results with the meteor yearly activity demonstrates a possibility to explain the temperature increases by such powerful meteor showers as Aquarids, Perseids, Leonids and Geminids. At the same time we did not find any possibility to explain the obtained temperature changes by solar (the flux F10.7 was analyzed) or geomagnetic (Kp-index was analyzed) activity.