

Simultaneous Mesosphere and Thermosphere Observations

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Results from the recent alternate incoherent scatter (IS) and meteor observations made by the MU radar and the observations made simultaneously by the MF radars in Japan are presented. Fourier analysis of the zonal and meridional neutral wind velocities at MLT altitudes (80-95 km), the average meridional neutral wind velocity in the thermosphere (220-450 km), and the electron density in the ionosphere (180-600 km) reveals simultaneous existence of strong waves of identical periods about 15, 18, 48, and 110 hours in the mesosphere, thermosphere and ionosphere in addition to the diurnal, semidiurnal and tri-diurnal tides.

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