Geophysical Research Abstracts
Vol. 12, EGU2010-13572, 2010
EGU General Assembly 2010
© Author(s) 2010

Sporadic E layer variability over Pruhonice - Wave persistence and inter annual variability

Petra Koucká Knížová, Daniel Kouba, Josef Boška, and Zbyšek Mošna
Institute of Atmospheric Physics ASCR, Aeronomy, Prague, Czech Republic (pkn@ufa.cas.cz)

The present study concerns variability of the wave activity in the sporadic E layer plasma. Within oscilations in height (hEs) and critical frequency (foEs) of sporadic E layer together with the temperature in the lower laying neutral atmosphere we search for the wave-like oscilations over a wide period range of hours to several days, covering tidal and planetary oscillation domain. In order to detect modulation of the E layer plasma wave-like oscillation by planetary waves from lower laying atmosphere we analyse oscillation in the neutral atmosphere temperature at the level of 10hPa. By means of the wavelet transform we detect wave occurence and its persistence. Using data from special summer high sampling rate campaigns of ionospheric vertical sampling performed since 2004 we evaluate the inter annual variability.