

MONITORING E-REGION PLASMA DRIFT MOTION

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Our contribution is focused on the ionospheric plasma motion at the E-region ionosphere. Study involves observations from station Pruhonice using DPS4 equipment.

Our detailed study of ionospheric plasma drift deals with data set collected in 2006, during a period of an exceptionally low geomagnetic and solar activity.

Also, we have analyzed vertical and horizontal velocity components and using histograms we found prevailing directions of plasma motion corresponding to specified ranges of velocities. Diurnal, seasonal and other effect to the drift behavior is subject of further detail study.

A special attention we pay to the presence of sporadic E layer. Standard drift measurement can be realized at frequency range according to Es reflections. We separate and pick up data corresponding to the Es layer reflection and then analyze behavior of Es drift velocity. In addition, during summer 2006 we performed special campaigns of 'Es drift' measurement. Together with standard E drift measurement (2-2.6 MHz) we also recorded plasma motion on higher frequency window (3.2 - 4.7 MHz).

ionospheric drift, Digisonde, sporadic E layer

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