

**DYNAMICS OF FIELD-ALIGNED CURRENTS IN THE IJIMA-POTERMA
REGION 1 DURING THE PERIOD OF STATIONARY MAGNETOSPHERIC
CONVECTION FROM THE MAGNETOGRAM INVERSION TECHNIQUE**

Vyacheslav Kapustin, Sergey Lunyushkin, Yuri Karavaev, Yuri Pensikh, Vladimir Mishin

Institute of Solar-Terrestrial Physics SB RAS, Irkutsk, Russia,

kapustin@iszf.irk.ru

We study dynamics of large-scale spatial distributions of dayside and nightside field-aligned currents (FAC) in both hemispheres, obtained using the magnetogram inversion technique (MIT) from ground-based magnetometers, during the period of stationary magnetospheric convection (SMC) on September 24, 1998. Quantitative and qualitative analysis showed that during the SMC period there were observed: the increase in the intensity of dayside FAC began during the substorm before the SMC; a monotonic increase Region 1 FACs intensities at quasi-equilibrium between dayside and nightside; in the late SMC a decrease in FAC intensities was observed before the second substorm.