



Location of high latitude boundary of the outer earth's radiation belt during 2009

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Dynamics of high latitude boundary of trapped radiation and earthward edge of geomagnetic tail current during 2009 epoch have been studied. Location of the external boundary of outer radiation belt was determined by data of 200 keV electron fluxes measured by Coronas-Photon satellite during its regular passes around the globe. It was found that radiation belt is influenced mainly by Earth's internal magnetic field. Measured during quiet 2009 epoch high-latitude ionospheric boundary of the outer radiation belt rotates together with the Earth. In solar-magnetic coordinates a small shift to the night side due to large-scale magnetospheric currents has been detected. The average form and location of the trapped radiation high latitude boundary in dependence on UT and solar wind parameters were obtained.