

The nightside quasitrapping region of the inner radiation belt

L.L. Lazutin

Most magnetosphere models include nightside quasitrapped part of the radiation belt together with magnetotail plasmasheet into the auroral radiation region. Actually it must be divided into two parts because of the essential difference of the magnetic field structure of these two domains and the difference of the particle motion. Presented paper describes the configuration and dynamics of quasitrapping region boundaries, the main characteristics of energetic particle population and relation to the magnetic activity. The knowledge of the quasitrapping region is important for the understanding of the explosive substorm activations taking place here.