

1. Asymptotic directions (asymptotic latitude and longitude) of the arrival of charged particles and magnetic cutoff rigidity were determined for the airports: Apatity, Oulu, Warsaw, Lae, Buenos Aires, Wellington and McMurdo.
2. The magnetic cut-off rigidity depends on the latitude. With the increase of latitude, the magnetic stiffness decreases, i.e. cosmic ray particles reach the Earth more easily from the poles than the equator
3. For the airports located at medium latitude, we observe a penumbra zone, that contains a family of allowed and forbidden trajectories of cosmic ray particles and magnetic cutoff rigidity is expressed by  $R_{ef}$  (Warsaw, Buenos Aires, Wellington)
4. For the airports located at high latitude, (Apatity, McMurdo and Oulu) the penumbra does not exist or is very narrow and magnetic cut-off rigidity is expressed by  $R_{st}$  in the absence of penumbra or by  $R_{ef}$  if penumbra exists.
5. In low latitudes (Lae airport), the penumbra does not appear and magnetic cutoff rigidity is expressed by  $R_m$
6. Analysis of the magnetic cut-off rigidity for the inclined components, we observe east-west asymmetry.
7. Knowledge of asymptotic directions and the magnetic cutoff rigidity, it is important from the point of view of the flight safety of both passenger and military aircraft and study of the different classes of the cosmic rays variations intensity and anisotropy.