

## Seasonal Variation of MeV Electron Flux at Geosynchronous Orbit

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Recent detailed observations of the outer belt MeV electrons revealed that the location of the newly appeared outer belt is inversely proportional to the storm bigness. An interesting observation is the simultaneous appearance of intense whistler mode chorus emissions around the peak position of MeV electron flux. Supply of intermediate-energy electron injections is evident. These seed electrons are likely accelerated by the waves to MeV energy range.

Well known phenomenon of the MeV electron increase around the geosynchronous orbit is a dependence on the solar wind velocity. We have newly found that increase of MeV electrons in the outer radiation has a strong seasonal dependence. By closer inspection, we found a significant dependence on the IMF polarity. In the autumn season electron flux increases very much during away polarity, while in the spring season the electron flux increases very much during toward polarity.

We will show these effects based on the observations from DRTS satellite for the periods from 2002 to 2008.