Energetic electrons observed at higher latitude region of the plasma sheet near the radiation belt

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The Arase satellite was successfully launched on Dec. 20, 2016, and it has started the regular mission observation since the end of March, 2017. The orbital inclination of Arase is about 31 degree, so that Arase can observe higher latitude plasma sheet near the plasma sheet boundary. During this summer, the local time of the apogee is located at near the midnight, and Arase observed the plasma sheet just outside of the outer radiation belt as expected. In these observations, we found that energetic electron bursts up to 500 keV frequently appear at higher L-value plasma sheet. Possible sources of these energetic electron bursts of a few hundreds keV in the region are (1) directly accelerated from magnetotail reconnection sites and (2) dispersion-less injections. It is interesting to distinguish the acceleration source of them and address each contribution of the energy input to the radiation belt for understanding the relation between magnetotail reconnection and the acceleration of MeV electrons in the radiation belts. We will present the initial results on the characteristics of the observed energetic electron bursts by using the wide-range electron distribution measurements from 10 eV to 20 MeV.