



Radiation Belt Activity Indices and Solar Proton Event Alarm on CRATERRE Project Web Site

Didier Lazaro, Daniel Boscher, Sébastien Bourdarie, and Angélica Sicard
ONERA, Toulouse, France (angelica.sicard@onera.fr)

In the framework of the ONERA/CNES CRATERRE project, two Radiation Belt Activity Indices and one Solar Proton Event Alarm are developed for post events analysis with less than two days of delays. Exploitation of available data in IPODE (Ionising Particle Onera Data basE) allows to define two Radiation Belt Activity Indices deduced from daily average fluxes at L=4 using POES/SEM2 electron >300keV and JASON2/ICARENG electron >1.6MeV fluxes. For both indices, four classes of activity are settled : quiet, active, very active and extreme. In the same way, a Solar Proton Event Alarm is deduced from POES/SEM2 proton >75MeV flux measured above the outer edge of the proton radiation belt. Hourly, solar flare flux level is considered relative to a predefined threshold to determine three alarms : no event, small and large events. Both indices and alarm are plotted over the last 30 days Craterre web site and is daily updated.