

# **AE-9/AP-9 Radiation Belt Model**

## **Release Notes**

**Version 1.05.001**

**August 21, 2013**

### **Software Changes**

- The ShieldDose database file, sd2DB.h5, has been updated to correct an error present in the original ShieldDose publication. In the elbrbas2.dat file, the Bremsstrahlung finite-slab and semi-infinite slab data tables, with the exception of the Al detector targets, had been switched (Heynderickx, 2013).
- CmdlineAe9Ap9: The routines for AE8 and AP8 models have been revised to calculate the differential flux values from the integral flux values using a power-law method, instead of a linear method.
- The validation of time for day 366 in leap years was fixed
- The plotting of dose results in the GUI application was fixed where dose interval is greater than one timestep
- The use of the time slider control for plotting was fixed in the GUI application.
- The precision of modified Julian date (MJD) has been increased in output files.
- The precision of the dose interval specification in the GUI application has been increased.

### **Documentation Changes**

- The AE9AP9\_TechDoc\_Ax8\_report.pdf has been added to the release documentation.