

The Limitations Of Model-Based Aircraft Radiation Dose Estimates

I. GETLEY¹, M.L. DULDIG², D.F. SMART³ and M.A. SHEA³

¹Department of Aviation, University of New South Wales, Sydney, NSW 2052, Australia ²Australian Antarctic Division, 203 Channel Highway, Kingston, Tasmania 7050, Australia ³Emeritus, Air Force Research Laboratory (VSBX), 29 Randolph Road, Hanscom AFB, Bedford, MA 01731, USA

The currently available radiation dose models do not account for changes in geomagnetic conditions when the geomagnetic cutoff may be significantly different from the quiescent values. They also do not account for cosmic ray modulation conditions that are beyond the normal solar cycle variation. We utilize on-board aircraft radiation dosimeter data acquired during the major solar-terrestrial disturbances of October/November 2003 to demonstrate these effects on a mid-latitude flight path over North America.

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