

Assessment of Radiation and Plasma Environment Modeling Capabilities

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Abstract

In order to make space weather environment models more useful to engineers and the user community throughout different phases of a satellite lifecycle (mission concept/planning/design/build, launch, operation and anomaly resolution) or assessing radiation effects at aviation altitudes, it is important to track their performance over time with well-defined, user-focused metrics and to maintain active, ongoing communication channels in order to understand each other's needs. To this end, working with experts in both science and engineering areas and the community in general, CCMC has launched the International Forum for Space Weather Modeling Capabilities Assessment (<https://ccmc.gsfc.nasa.gov/assessment/>). In this presentation, we will report the progress made from our Space Radiation and Plasma Effects Working Team. Two sets of metrics/physical quantities have been chosen with one set that are outputs of space environment models (constituting critical physical parameters/inputs directly relevant to effects quantification) and the other relevant to engineering models of effects. The initial results and follow-on activities will be discussed.

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