



DOWNLOAD



## The Space Environment and Its Effects on Space Systems (Hardback)

By Vincent L. Pisacane

American Institute of Aeronautics Astronautics, United States, 2008. Hardback. Book Condition: New. 226 x 163 mm. Language: English . Brand New Book. This textbook will help students and professionals understand the space environment and its impacts on spacecraft design, engineering, and performance. While the primary emphasis of the book is the Earth's environment and its effects on spacecraft, it also addresses the extraterrestrial environment and the effects of radiation on humans in space. The book begins with an introduction to the history of spacecraft failures, risk management, reliability and quality assurance techniques, and parts reliability. It goes on to provide an overview of the structure of the Sun; the structure, origin, and models of the geomagnetic field; gravitational field of the Earth; Earth's magnetosphere and radiation environment; neutral environment including fundamentals of the kinetic theory of gases; variation of pressure with altitude and hypoxia of humans; electromagnetic propagation; the effect of atomic oxygen on materials; plasma surrounding the Earth; transport and effects of photon and charged particle radiation on electronics and tissue; spacecraft contamination; techniques to mitigate debris impact; and heat transfer and thermal control of spacecraft. An appendix provides important astrodynamic constants and parameters of the celestial bodies in...



**READ ONLINE**  
[ 4.71 MB ]

### Reviews

*Absolutely essential read through book. it was actually writtern quite properly and useful. Its been developed in an remarkably basic way and it is only following i finished reading through this ebook where really changed me, modify the way i believe.*

-- **Torrey Jerde**

*This publication might be worthy of a read through, and superior to other. It normally is not going to charge excessive. Its been written in an remarkably simple way and is particularly just after i finished reading through this book through which in fact transformed me, alter the way i really believe.*

-- **Juston Mraz**