

Book Review - Space Operations: Mission Management, Technologies and Current Applications



Volume 220, AIAA series Progress in Astronautics and Aeronautics. Virginia: American Institute of Aeronautics and Astronautics, 2007. Hard cover, 662 pp., illus.

The "SpaceOps 2006 Book", as it is known among the SpaceOps Community was compiled from a set of re-selected and upgraded papers, which had already been approved in a first instance for presentation at the SpaceOps 2006 Symposium held in Rome, in June 2006.

These 36 papers, out of a total of 280 papers presented at the symposium, were selected because of their quality and their relevance to the space operations community. Three main subject areas are covered: Spacecraft Operations, Ground Operations and Management. Lessons learned from actual missions, current experiences and recommendations for the future are presented: cost effectiveness in earth observation, public private partnership models, failure prevention, and standards – in particular current status of CCSDS activities, advanced ground architecture proposals, communications and tracking challenges illustrated by such different examples like Mars Reconnaissance Orbiter, JAXA space debris surveillance and deep space communications.

Current operations automation experiences, as well as future aspects are discussed. Planning tools and advanced technologies for ground and on-board systems are covered.

A variety of current missions and operational experiences with "inside" information are included: Parosol & Calipso, Spitzer Space Telescope, Cosmo-Skymed, Smart-1, Phoenix Mars Scout, Mars Express, Mars exploration Rovers, Cassini-Huygens, Ulyssies, Rosetta, Radarsat-1 an ISS.

In all, the book is an excellent summary of the current state of the art in spacecraft operations and gives some very interesting views on future, planned enterprises, in particular on the concepts for the Vision of Space Exploration.

The book is available for sale by AIAA Press for USD 109.96 for non-AIAA members and for USD 79.95 for members.
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