SPACE OPERATIONS SYMPOSIUM (B6)
New Operations Concepts (2)

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NEW PARAMETERS FOR AUTOMATIC END-TO-END COSMO-SKYMED SYSTEM PERFORMANCES MONITORING

Abstract

COSMO-SkyMed is an Earth Observation space program funded by the Italian Ministry of Research and Italian Ministry of Defence (It-MoD) and conducted by the Italian Space Agency (ASI) in conjunction with It-MoD. In the framework of the programmatic phase concerning the maintenance of the constellation in operational conditions, already in place, new parameters have been conceived in order to automatically monitor end-to-end system performances and engineering support efficiency. Aim of this paper is to describe all the parameters currently used to measure availability, effectiveness and efficiency figures of COSMO-SkyMed system, the lessons learned and optimization strategies concerning the parameters used during the development phase, with a particular focus on the new parameters recently designed and introduced to assess anomalies and non conformance management process efficiency. Methodologies, process architecture solutions, parameters detailed algorithms, test cases and validation strategy will be assessed in this paper, pointing out how the conceived frame gives the system owner the right confidence of an automatic monitoring of the end-to-end performances of the COSMO-SkyMed system.