

IAF SPACE SYSTEMS SYMPOSIUM (D1)

Lessons Learned in Space Systems: Achievements, Challenges, Best Practices, Standards. (5)

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THE ASSEMBLY, INTEGRATION AND TESTING AS A SYSTEM ENGINEERING TOOL IN
EMIRATES MARS MISSION AND THE LESSONS LEARNED

Abstract

The Emirates Mars Mission is the first deep space mission for the United Arab Emirates {and the whole arab world} and it aims at exploring the martian atmosphere through the use of three scientific instruments. The Assembly, Integration and Testing {AIT} phase occupies more than half the duration of the project ground development time and required an approach that is completely new to the team which employed system engineering tools and expertise. This paper is intended to demonstrate how this new AIT approach was employed as a system engineering tool and share and discuss the lessons learned out of this including AIT planning, facility challenges, paper work and configuration management challenges and Test-like-you-fly approach.