

IAF SPACE OPERATIONS SYMPOSIUM (B6)
Mission Operations, Validation, Simulation and Training (3)

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KHALIFA SAT MISSION OPERATION

Abstract

Khalifa-Sat is the United Arab Emirates (UAE) earth observation satellite that was launched on 29 October 2018 from Tanegashima Space Center in Japan. The satellite was designed and developed 100Khalifa-Sat provides earth observation data at a spatial resolution of 0.7m PAN and 2.9 m Multi-Spectral at 600 Km altitude. Its operational life is 5 years. Khalifa-Sat mission operations has four main phases as follows: 1. Launch and Early Operations Phase (LEOP), 2. Commissioning Phase, 3. Nominal Operation Phase, 4. Mission Termination Phase. The LEOP phase has been conducted and executed successfully by the operation team in MBRSC, and the satellite now is on the Nominal Operation phase.

This paper will provide an overview of Khalifa-Sat mission operations. Also it will introduce the Concept of Operations (CONOPS) of the mission and specify all phases. It will highlight the operation modes of the satellite. This paper will also present the current status of the mission and lessons learned from various phases of the mission.