

SPACE SYSTEMS SYMPOSIUM (D1)
Lessons Learned in Space Systems (5)

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AMOS-3 MISSION: MAKING LEMONADE OUT OF LEMONS

Abstract

AMOS-3, launched on April 28th, 2008, was the most sophisticated and complex communications satellite ever built in Israel. As such, its mission was innovative and challenging. AMOS-3 was the first western geostationary satellite that was injected directly to GEO orbit. The launch mission was assigned to an experienced Russian team, with proven success in designing and performing missions similar to this.

The mission crew in MBT-SPACE spotted from early stages of the mission that something is not exactly right and the mission is in jeopardy. As it turned to be, mission execution by the BLOCK-DM upper stage was far from being ideal, and the mission crew was forced to come up with creative and innovative ways to solve the problems and direct AMOS-3 satellite safely to its designated slot.

This paper and presentation will explain stage-by-stage the sequence of events and the design methodology that overcome the challenges and problems that the mission crew had to face until achieving the goal of providing a fully-operational communications satellite in the correct orbital location.