

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

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LESSONS LEARNED ON A SPACE TRAINER ENDEAVOR

Abstract

Space simulators are needed to prepare astronauts for future flight missions both in Earth orbit and to the Moon and beyond. NASA's legacy simulators have been mostly static or limited dynamic trainers. New advanced trainers envisioned for the Constellation program will have features that provide sustained G-forces, and rotation with multiple degrees of freedom to offer astronauts a much-needed, more realistic flight-like experience. A group of graduate students developed a proposed solution using a disciplined system engineering process. This paper presents lessons learned by the students regarding the design, cost, schedule, performance, integration, and the use of commercial off the shelf equipment in the development and marketing of the training solution. These lessons can be applied as historical data for new endeavors using space trainers.