

Lessons Learned from the Space Station Program: The Role of Life Cycle Cost

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In November 2001, the ISS Management and Cost Evaluation (IMCE) Task Force found that the imposition of annual budget caps was counterproductive to controlling total Space Station life-cycle costs. Program management focus on annual budgets has resulted today in significant cost overruns for the Space Station and the forfeiture of research opportunities for an unknown period of time due to crew limitations. This paper states that in doing so, NASA suffered a loss of cost credibility that is likely to affect the future of human spaceflight, and further, it lost opportunities to meet program objectives while staying within a credible total resource estimate. The proximate cause goes back to the lack of a strong commitment to life-cycle cost management (LCCM) in the earliest days of Space Station Freedom (SSF). This paper describes SSF's early attempt at LCCM and the lessons learned for the next major human missions beyond Earth orbit.