Lessons Learned from 5 Years of Multi-Mission Operations

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For The Fifth International Symposium on Reducing the Cost of Spacecraft Ground Systems and Operations (RCSGSO)
July 8-12, 2003

ABSTRACT

Over the past five (5) years the Mission Management Office (MMO) at the Jet Propulsion Laboratory (JPL) has reduced operations development costs and the cost of mission operations by implementing a multi-mission organization that utilizes multi-mission processes, tools, and procedures. This paper explores the persistent issues that arise from instituting multi-mission concepts and provides some examples of how they can reduce cost, minimize development time, and decrease the risk of operating future missions. New projects are attracted to MMO by the prospect of reduced development and operations costs, but at the same time are apprehensive because they do not understand how an existing system can support their "unique" or "special" needs. The reasons why individual projects agree to be a part of a multi-mission system, and the results of that decision will be outlined in this paper. In addition, a discussion will detail how a new project can concentrate on adapting and implementing the capabilities that are, indeed, truly unique to their mission by adopting a proven baseline operations system. Finally, the paper will look at how a multi-mission environment benefits both the development and operations of future missions by providing a training ground for less-experienced engineers.