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COST AND TEAM SIZE ESTIMATION FOR LAUNCH AND EARLY ORBIT OPERATIONS OF A GEOSYNCHRONOUS COMMUNICATIONS SATELLITE MISSION

Abstract

In today's restrictive budgetary environment, the importance of effectively estimating cost and team sizes for space missions is crucial to ensuring the proper allocation of financial resources and personnel needed to successfully complete the task.

Mission operations is one of the most critical phases of a space mission as the flight vehicle is no longer readily accessible or easily investigated and/or repaired. Therefore, an accurate method of estimating the cost and team size for a space mission is essential to guaranteeing adequate resources are in-situ to support mission operations in order to enable mission success.

This literature will focus on estimating the cost and team size required to support the Launch and Early Orbit Operations (LEOP) of a geosynchronous (GEO) communications satellite mission. The key factors in effectively estimating the cost and team size required to support LEOP of a GEO communication satellite will be discussed. A detailed analysis will be presented, supported by actual space mission data. Recommendations for additional applications of the estimation methodology will also be discussed.