

Quantitative Risk Analysis for Major Subsystems and Project Success of a Highthroughput Satellite

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Abstract : This paper dwells on the risk management required for High throughput Satellite (HTS) project, and major subsystems that pertains to the improved performance and reliability of the spacecraft. The paper gives a clear picture of high-throughput satellites (HTS) and the associated technologies with performances as they align and differ with the traditional geostationary orbit or Geosynchronous Equatorial Orbit (GEO) Communication Satellites. The paper also highlights critical subsystems and processes in project conceptualization and execution. The paper discusses the configuration of the payload. The need for optimization of resources for the HTS project and successful integration of critical subsystems for spacecraft requires implementation of risk analysis and mitigation from the preliminary design stage; Assembly, Integration and Test (AIT); Launch and in-orbit- Management stage.

Keywords : AIT, HTS, in-orbit management, optimization

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