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A FRAMEWORK FOR INTEGRATING DIFFERENT SPACE LAUNCH CONCEPTS FOR EFFICIENT SPACE LAUNCH OPERATIONS

Abstract

Fifty five years have passed since the first man-made object reached space. Since then, many new methods for launching objects to space have been developed, including air launch and reusable systems. Despite being based mainly on similar technologies, the operational differences of these concepts make them suitable for specific applications. As the size and operational requirements of space systems have also changes during these years, it seems reasonable to assess which of these launch methods better match specific applications.

This paper aims to outline how all the different space launch concepts can be integrated to match the different needs of today's space activities. It will try to outline the operational continuum of each launch concepts and provide a tool for choosing the most beneficial space launch concept for each application.