

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Launch Services, Missions, Operations, and Facilities (2)

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AN ANALYSIS OF THE DESIGN REQUIREMENT FOR LAUNCH SITE FOR HEAVY SPACECRAFT

Abstract

This paper introduces several modes of transportation for heavy launch vehicle within launch site. The main method, basic form, application scope and feature of each mode is introduced, some comparisons and analysis are made among several typical modes, based on which the trend of in-site transportation for heavy spacecraft launch vehicle is demonstrated. Based on the specification and task of spacecraft and launch vehicle the principle for the design requirement for vertical assembly-test building is proposed and related design requirement elements are listed including building scale, capacity and amount of the crane, bearing capacity of the foundation, power of electrical supply, temperature and humidity, grounding condition and gas supply. For each of these elements its role is stated, method to determine its specification is proposed.