

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Launch Vehicles in Service or in Development (1)

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H-IIA UPGRADE STATUS AND THE NEXT FLAGSHIP LAUNCH SYSTEM OF JAPAN

Abstract

The result of the conceptual study of Japanese next primary launch system, H-III, along with the development status of H-IIA upgrade will be presented.

The upper stage upgrade of H-IIA launch vehicle is now in development phase and the preliminary design review (PDR) has been conducted. Using the upgraded H-IIA, MHI will be able to offer a longer coast time option in the H-IIA launch service to decrease the delta-v of payload to Geostationary Transfer Orbit (GTO) in 2013. Multi payload launch to different altitude of Sun Synchronous Orbit (SSO) will also be available in mid-2010s using the deep throttling capability of our upper engine, LE-5B.

The next primary launch system, H-III, is now in conceptual study phase and the vehicle configuration study is now on going. Feasibility tests of key technologies are prepared to be finished before transition to the development phase. A fully liquid propellant vehicle is selected as a baseline configuration with various options still in sight. H-III is targeting to be operational in 2020s. Human transportation using advanced version of H-III is considered as a future plan and the preliminary study of human rating is under way.