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

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CURRENT STATUS AND EVOLVING PLAN OF JAPANESE FLAGSHIP LAUNCH SYSTEM, H-IIA/H-IIB AND H3

Abstract

The Japanese flagship launcher, H-IIA and H-IIB have succeeded continuously and the launch success rate has reached to 97.1 percent. Last year, the H-IIA flight No. 29 launched a commercial satellite in Nov. 2015. Some new technologies developed by Japan Aerospace Exploration Agency (JAXA) were adopted in the flight, so that the upgraded H-IIA is able to inject satellites closer to geostationary orbit than conventional geostationary transfer orbit. To meet various commercial satellite needs, the "upgrade" could enhance its performance with some optional items. Therefore, the Japanese government started developing a new flagship launch vehicle, the H3, in order to be more competitive in the satellite launch market. The first launch of the H3 is planned for FY2020. The launcher would provide an attractive price, almost half the price compared with the current launcher such as H-IIA and H-IIB, and high reliability succeeding from the current launchers. Some of the development tests were started performing on avionics, structure and propulsion system. The current status of the H3 development is reported in this paper.