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

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LONG MARCH 6A AND ITS TECHNICAL CHARACTERISTICS

Abstract

China's first solid-liquid bundled launch vehicle, the Long March 6A(LM-6A) adopted a number of key new technologies successfully launching the Pujiang2 and Tiankun 2 satellites precisely into their predetermined orbits thus demonstrating China has mastered solid-liquid bundled launch vehicle technology and has a new member in the new generation launch vehicle family. For the first time in China, a booster adopted a 2m diameter solid motor and a 270kV, 20kW high-voltage and high-power electric servo system was used to control the swing of the solid motor nozzles. A health diagnosis system for the core first stage engine and unattended automation technology were also adopted for the first time. LM-6A gave full play to the technical advantages of the solid motor's simple use and maintenance and the high specific impulse of the liquid engines. It accomplished two success launch mission in the year of its maiden flight and filled a number of China's technical margin. The results have significant social and economic benefits and have a bright prospect.