

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

Author: Dr. Shoyo Hyodo
Mitsubishi Heavy Industries, Ltd., Japan

Mr. Shuhei Futae
MHI, Japan

Mr. akihiro sato
Mitsubishi Heavy Industries, Ltd., Japan

Mr. Osamu Kitayama
Japan

Mr. Mayuki Niitsu
Mitsubishi Heavy Industries Ltd. - Nagoya Aerospace Systems, Japan

RESULTS OF H3 RETURN TO FLIGHT AND NEXT STEP FOR INNOVATIVE SPACE
TRANSPORTATION SYSTEM

Abstract

The H3, the next Japanese flagship launch vehicle, its concept will provide easy and frequent access to space for not only Japanese government and scientists, but also for customers worldwide as well. The maiden flight of H3 has launched on 7th March 2023 with partial success and flight termination. Through failure investigation, return to flight of H3 has been succeeded on 17th February 2024. Now, H3 is preparing for launch service customers all over the world. H3 will grow up continuously to enhanced version for adapting customer demands. More multi satellite adaptability for constellation mission, high launch cadence for multi customers, more launch capability for commercial space station mission, etc. are considered. The next step from H3 starts to be studied to make disruptive change for 2030s. This Innovative Space Transportation System aims to Moon mission for near target. Rapidly launch cadence is aimed to adopt various launch demands. The manned transportation is included for design methodology. In this paper, the return to flight results of H3, plan for H3 enhanced version for adopting customer demands and next step for Innovative Space Transportation System are reported.