SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Upper Stages, Space Transfer, Entry and Landing Systems (3)

Author: Mr. Kenji Egawa
Mitsubishi Heavy Industries, Ltd., Japan, kenji_egawa@mhi.co.jp

Mr. Kazuo Takase
Mitsubishi Heavy Industries, Ltd., Japan, kazuo_takase@mhi.co.jp
Mr. Masanori Tsuboi
Mitsubishi Heavy Industries, Ltd., Japan, masanori_tsuboi@mhi.co.jp
Mr. Masatoshi Nojiri
Mitsubishi Heavy Industries, Ltd., Japan, masatoshi_nojiri@mhi.co.jp
Mr. Katsuhiko Akiyama
Mitsubishi Heavy Industries, Ltd., Japan, katsuhiko_akiyama@mhi.co.jp
Mr. Shigeru Mori
Mitsubishi Heavy Industries, Ltd., Japan, shigeru1_mori@mhi.co.jp
Mr. Kiyoshi Kobayashi
Japan Aerospace Exploration Agency (JAXA), Japan, kobayashi.kiyoshi@jaxa.jp

OUTLINE OF THE CONTROLLED RE-ENTRY SYSTEM OF THE H-IIB UPPER STAGE

Abstract

H-IIB launch vehicle(H-IIB) was developed in order to launch H-II Transfer Vehicle(HTV) to the International Space Station(ISS), and to satisfy various customers' needs for heavy lift launch. Until now, two H-IIB launch vehicles have been launched successfully.

At the Flight #2, Japan Aerospace Exploration Agency(JAXA) has conducted a controlled re-entry experiment of upper stage after delivering HTV to ISS transfer orbit as a new safety procedure to minimize ground casualty risk. The controlled re-entry is effective also to reduce space debris and it is progressive approach to promote space environment preservation.

This paper describes the outline of the controlled re-entry system, and the result of the re-entry experiment at H-IIB Flight #2.