

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)

Human Space Endeavour: Overview (1)

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JAPAN'S ISS PROGRAM STATUS

Abstract

JAXA has developed the Japanese Experiment Module, named "KIBO", in order to contribute to the large-scale manned space program "International Space Station (ISS)". JAXA overcame many technical difficulties such as the safety and reliability requirements and verification which is unique to the manned spacecraft. Through the KIBO development, we acquired the cutting-edge technology and knowledge in the human space systems. After the KIBO starts on-orbit operations, the real-time operations and utilization will become a keystone for the Japan's future manned space activities.

This year will be the most exciting and challenging one in the history of Japan's manned space development. The elements of KIBO will be assembled in space on the shuttle missions STS-123, STS-124 and STS-127. In this year, the KIBO Pressurized Logistics Module will be launched at first, and then the core of the KIBO system called the Pressurized Module with the Remote Manipulator System will be the second. The Japanese astronauts will work for the assemblies of these elements onboard the ISS. After the activation and initiation of the operation, the utilization activities will be starting gradually in the KIBO Pressurized Module. The Japanese astronaut will stay onboard the ISS for a couple of months?in order to work for the ISS activities and prepare for the last KIBO assembly and activation of the Exposed Facility and Exposed facility payloads which will be launched in next spring.

This paper will present the progress and accomplishments in Japan's ISS program and will describe the launch, operation, and utilization of KIBO as well as the development status of the H-II Transfer Vehicle (HTV), which will play an important role in the ISS resupply fleet, especially after the Space Shuttle retirement in 2010. This paper will also introduce the future vision in human space activities led by the KIBO program.