

HUMAN SPACE ENDEAVOURS SYMPOSIUM (B3)

Human Space Endeavour: Overview (1)

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Abstract

Since meeting in Hyderabad for the IAC 2007, considerable progress occurred in advancing the assembly and on-orbit presence of flight modules and elements from all of the ISS partners. Several challenges to maintain and repair critical ISS systems have been encountered. Throughout all of these events the on-orbit operations of the Mobile Servicing System (MSS) have been vital, dependable and a credit to Canadian technology development.

Not only has Canada's contribution to the ISS increased with the arrival of its two-armed robot, Dextre, but also Canada's contribution to the Columbus module, the Microgravity Vibration Isolation Module (MVIS) awaits use within the Fluid Science Laboratory. Several life and physical sciences experiments with Canadian participation or collaboration are in progress and Canada has recently received science proposals for ISS that are undergoing evaluation and review.

The Canadian Space Agency is pleased with ISS progress and looks forward to the flights of two of its astronauts in 2009. Julie Payette will fly on Space Shuttle Endeavour for the STS-127 mission with launch planned for April 2009. In May 2009, Dr. Robert Thirsk as a member of the Expedition 19 crew, becomes the first Canadian to remain on the International Space Station for a long stay, living there for 4 to 6 months. He will also be a member of the crew for the transition to a team of six astronauts living together continuously aboard the Station. CSA has termed Expedition 19 as the "C1 Increment" for Canada.

CSA Operations and Engineering are engaged in updates to MSS software to accommodate the future flights of JAXA HTV and COTS demonstration vehicles to ISS as the Space Shuttle approaches its last flight.

In the context of using the ISS as a test bed for space exploration, Canada is also planning a robotics trial and working with its ISS partners towards demonstrations.