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SYMPOSIUM ON BUILDING BLOCKS FOR FUTURE SPACE EXPLORATION AND DEVELOPMENT (D3)
Systems and Infrastructures to Implement Future Building Blocks in Space Exploration and Development (2)

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AN APPROACH TO DEVELOP HUMAN SPACE TRANSPORTATION SYSTEMS FOR LOW EARTH ORBIT AND BEYOND

Abstract

JAXA is studying the cargo return capability from low Earth orbit,i.e the ISS advancing the technology developed through the HTV. JAXA is also studying the system for the human space transportation from the low Earth orbit or Moon to ground. Major advanced technologies for both systems are thermal protection systems and maneuvering systems during re-entry and return to the Earth. The paper summarized the building blocks approach for the human space transportation systems development which includes a lot of challenges for JAXA in technologies as well as the cost for development. The integrated and cost effective approaches are reviewed.