

SPACE EXPLORATION SYMPOSIUM (A3)  
Space Exploration Overview (1)

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FEASIBILITY STUDY ON THE JAPANESE HABITAT MODULE AT EARTH-MOON LAGRANGE  
POINT 2**Abstract**

The deep space habitat at an Earth-Moon Lagrange point is proposed as an optional pathway for human exploration in the Global Exploration Roadmap. And the Earth-Moon Lagrange point 2 (EM-L2) is considered as the place where the deep space habitat will be established. Japan has contributed providing a laboratory module, named “Kibo” or “JEM”, to the International Space Station (ISS), and also a cargo ship service named “Konotori” or “HTV”. It is an option that Japan provides a habitat module to the deep space habitat at the EM-L2 by developing the technology that Japan had achieved at the ISS much further. This paper gives a feasibility study of the Japanese habitat module and its transportation strategy to the EM-L2. A focus is the use of assets that currently Japan owns as much as possible to minimize the cost and time of development.