

Japan Item 15 – “Space Exploration and Innovation”

---

Mr. Chair, Distinguished delegates,

Space exploration represents a substantial challenge to humankind in our quest to explore new frontiers to acquire knowledge and expand human presence deeper into space. Japan has been participating in this challenge in cooperation with our international partners.

In October 2020, Japan signed the Artemis Accords as a political commitment to establish an internationally shared framework on various principles for civil space exploration activities and the use of outer space by national space agencies.

In the field of lunar exploration, Japan is participating in the lunar “Gateway” as part of the Artemis Program by leveraging the knowledge and technology acquired from the ISS program and space science missions. During Japan’s fiscal 2022, JAXA plans to launch the Smart Lander for Investigating the Moon (SLIM), which is designed to pinpoint landing capability on the lunar surface. JAXA is also developing the Lunar Polar Exploration mission (LUPLEX) in collaboration with ISRO, which aims to investigate the presence of water and the possibility of resource utilization in the lunar polar region. In addition, JAXA plans to provide a habitation system and logistics resupply to the Gateway, and develop a pressurized crew rover.

In the field of planetary science, asteroid probe Hayabusa2 arrived at the C-type asteroid Ryugu in 2018 and conducted surface exploration as well as two touchdowns. In December 2020, Hayabusa2 successfully brought back samples of Ryugu to the Earth, and the analysis of the sample has started. Hayabusa2 is currently on the way to explore another asteroid, 1998 KY26.

Moreover, JAXA is currently developing the Martian Moons eXploration (MMX), which will technologically succeed Hayabusa2, with a target launch of JFY 2024. Through this mission, JAXA plans to explore the two Martian Moons and collect a sample from one of the Moons called Phobos to bring back to Earth.

As for the Astrophysics, JAXA’s X-Ray Imaging and Spectroscopy Mission (XRISM) is planned to launch in JFY 2022 on the same vehicle as SLIM. XRISM will perform the high-resolution X-ray spectroscopic observations of the hot gas plasma and aims to reveal the composition and evolution of celestial objects.

JAXA has also been cooperating with Japanese universities in space exploration missions. This year, two CubeSats named “OMOTENASHI” and “EQUULEUS”

developed by JAXA and the University of Tokyo will be launched by NASA’s Artemis I. These CubeSats will demonstrate small spacecraft technology and carry out scientific missions near and on the moon for future exploration.

Collaborating with Japanese industry is also important for space exploration. We have been promoting joint research with Japanese industry through JAXA’s Space Exploration Innovation Hub Center since 2015. Through the activities of the Hub Center, JAXA has been collaborating with companies, universities, and research institutes on research and the development of technologies that will contribute to future space exploration, such as automatic and autonomous exploration technology, In-Situ Resource Utilization (ISRU) technology, and common technology adopted for both space and non-space sectors.

Mr. Chair, Distinguished delegates,

Space exploration is in the common interest of all humankind and the ultimate challenge of exploring new frontiers. Moreover, we believe that these space exploration endeavors are a great opportunity to benefit humanity by contributing to the development of science and technology on Earth as well as promoting social awareness among young people and advancing economic development. Japan would like to participate in this spectacular challenge for humankind along with our international partners, and contribute through Japanese technical expertise.

Thank you for your kind attention.