



SASAKAWA USA
Sasakawa Peace Foundation USA

The U.S.-Japan Space Partnership: A Shared, Evolving Mission

Summarized by John Seymour

Associate Program Officer
Sasakawa Peace Foundation USA

Abstract

On Thursday, December 10, 2020, Sasakawa Peace Foundation USA (Sasakawa USA) welcomed Mr. Kimitake Nakamura, Minister at the Embassy of Japan, and Dr. Masami Onoda, Director of the Washington, D.C. Office of the Japan Aerospace Exploration Agency (JAXA), for a discussion of the U.S.-Japan space partnership. The speakers addressed many facets of the U.S.-Japan space partnership, including exploration, research, defense, and satellites. They also discussed JAXA Astronaut Dr. Soichi Noguchi's flight to the International Space Station on SpaceX Crew-1 and looked at how U.S.-Japan space cooperation will continue to grow.

This talk was presented through Sasakawa USA's Policy Briefing Series and held virtually via Zoom. Attendees included distinguished guests from the Washington, D.C. and Japanese policy communities, academia, and think tanks as well as guests from the Sasakawa Peace Foundation in Tokyo. Dr. Satoshi Akimoto, Chairman and President of Sasakawa USA, moderated the panel and facilitated the Q&A.

Remarks by Dr. Masami Onoda

Dr. Onoda began the discussion by explaining that the goal of her presentation was to introduce space policy and the U.S.-Japan space partnership. To demonstrate a recent example of U.S.-Japan cooperation in space, she shared a video of the recent SpaceX launch to the International Space Station (ISS) that included Japanese astronaut Dr. Soichi Naguchi. In addition to serving as a space station and science lab, the ISS has also enabled space programs to prepare for sustainable manned flights to the Moon and Mars in the future. To Dr. Onoda, this mission represented a demonstration of humanity's resilience and shared mission of making step-by-step advancements in outer space exploration and capabilities.

Next, Dr. Onoda introduced the Hayabusa2 project. Launched in 2014 by JAXA, the Hayabusa2 spacecraft is tasked with collecting samples from asteroids, and the first capsule with samples was successfully recovered in December 2020. Dr. Onoda added that the U.S. National Aeronautics and Space Administration (NASA) has launched a similar asteroid-sample mission called OSIRIS-REx, and JAXA and NASA are planning on exchanging samples when the OSIRIS-REx delivers its samples in 2023.

Dr. Onoda continued on the topic of ongoing space projects by discussing the Martian Moon Exploration (MMX) mission, an initiative aimed at taking data and samples from Phobos and Deimos, the two moons of Mars. The project launch is planned for 2024 and scheduled to be completed in 2029. Overall, Dr. Onoda explained that JAXA is aiming to collect sample returns about every ten years while working with partners such as NASA and the European Space Agency (ESA).

Returning to Earth, Dr. Onoda focused on recent agreements made between the United States and Japan regarding space exploration. In 2019, she explained, NASA and JAXA signed a joint statement on collaboration in space exploration. Later that year, former Prime Minister Shinzo Abe announced that Japan would join international plans for lunar exploration and work with NASA on the Gateway program, a planned outpost that will orbit the Moon. In October 2020, Japan signed onto the Artemis Accords alongside seven other countries, codifying a common set of principles for the civil exploration and use of outer space.

Next, Dr. Onoda discussed what exactly Japan will do for the space exploration program. First, Japan will provide components of the Habitation and Logistics Outpost (HALO) that will serve as one of the initial elements of the Gateway lunar outpost. In addition, Japan will send cargo and supplies to Gateway. For the ISS, Japan will work with international partners on the station's

environmental controls and life support system. Furthermore, Japan will conduct its own lunar surface exploration missions in the next few years in preparation for a future manned mission, and JAXA will also explore the development of a pressurized lunar rover.

Dr. Onoda closed her presentation by emphasizing the importance of partnerships to JAXA's initiatives. She explained that JAXA conducts numerous joint projects with private sector partners that cover a broad range of industries, including tourism and robotics. Additionally, JAXA works with more than sixty other countries on various space-related projects, and Dr. Onoda characterized the partnership with the United States as the closest among Japan's relationships. Outer space continues to grow in importance, therefore, Dr. Onoda stated that she looks forward to Japan's role in building sustainable space initiatives.

Remarks by Min. Kimitake Nakamura

Mr. Nakamura opened his presentation by sharing the story of the Cheseborough, an American ship that wrecked off the coast of Shariki Village in present-day Aomori Prefecture in 1889. Four of the crew members were saved, and the incident eventually led to a sister-city relationship between Tsugaru (the modern name of Shariki) and Bath, Maine, where the Cheseborough was built, as well as a sister-state partnership between Aomori and Maine. Today, Aomori hosts U.S. radar systems and plays a vital role in the defense of Japan, which Mr. Nakamura stated demonstrates the important partnership between the two countries.

Next, Mr. Nakamura emphasized the importance of U.S.-Japan cooperation in space. He referenced General John Raymond, U.S. Chief of Space Operations, as saying that Japan is the most important partner for the United States in the field of space, and he described the major achievements of Japan's space program. Japan, the fourth country to put a satellite in Earth's orbit, has long developed its own solid-fuel rockets. It has also made significant advancements in liquid-fuel rockets, with the H-II series producing world-class success rates.

Following this point, Mr. Nakamura discussed Japan's history with space defense. He characterized Japan as a relative latecomer to viewing space as a domain for defense, as Japan was long focused on the research and communications applications of outer space, and a Diet resolution in 1969 limited Japan's space activities to peaceful purposes only. However, the launch of North Korea's Taepodong-1 rocket over Japanese airspace in 1998 prompted a policy shift in Japan. Mr. Nakamura highlighted that Japan launched information-gathering satellites in 2003 and introduced its Basic Space Law in 2008, which

stipulated the establishment of the Headquarters for Space Policy, the appointment of a Cabinet Minister for Space Policy, and enabled the Japanese Self Defense Force (JSDF) to conduct space operations to the same extent it can in other domains.

Mr. Nakamura then described one critical area of the U.S.-Japan space partnership: Space Situational Awareness (SSA). Both the United States and Japan have invested heavily in systems that enable the locating and tracking of space debris that could threaten space assets like satellites. In particular, he pointed to JAXA's observational facilities on the Earth's surface as a positive contribution to this mission. In addition to space debris, Mr. Nakamura also identified suspicious space activities such as the chase of U.S. satellites and the use of targeting lasers as threats to space assets. However, Mr. Nakamura stated that the U.S. space strategy emphasizes the important role of allies in space defense, and both JAXA and the Japanese Ministry of Defense (MOD) will contribute to this shared mission of SSA.

Beyond SSA, Mr. Nakamura described further initiatives for greater cooperation between the United States and Japan in space. In 2019, the two countries issued a joint statement demonstrating a commitment to capacity building for cross-domain operations, including space capabilities. Also, Japan and the United States have conducted tabletop exercises aimed at promoting stronger interoperability, and the Japanese Air Self Defense Force (JASDF) has established a new squadron specializing in space operations. Mr. Nakamura also outlined the MOD's plans to maintain an array of positioning, early warning, communications, and meteorological satellites. Other Japan's space assets operated by JAXA will enable joint initiatives such as monitoring forest fires, illegal deforestation, and even greenhouse gases via the new IBUKI satellite. Mr. Nakamura even pointed to the potential use of space assets in improving Japan's work with official development assistance.

In closing, Mr. Nakamura reiterated Japan's commitment to its partnership with the United States in space activities. Together, he stated that the two countries can make advancements that benefit both countries and advance scientific understanding of space.

Moderated Q&A with Attendees

Dr. Akimoto began the Q&A portion of the event by asking the panelists what they expect the incoming administration of President-Elect Joseph Biden will do regarding the U.S.-Japan space partnership. Mr. Nakamura answered that he does not expect major policy changes given the strong bipartisan agreement within the

United States on space cooperation. Dr. Onoda echoed Mr. Nakamura's thoughts while emphasizing the importance of continuing to build the partnership, as space assets are important for both security and everyday applications.

Next, Ms. Sita Shonty, Director of Human Spaceflight Sales at SpaceX, asked how the U.S.-Japan space partnership will grow in the field of human spaceflight. Dr. Onoda answered that JAXA and its international partners are planning to send humans beyond low Earth orbit, so future targets include the Moon and beyond. She also emphasized the importance of working with space organizations across the globe for building sustainable space exploration missions.

Mr. George Nield, President of Commercial Space Technologies, then asked the panelists if they could comment on Japan's sub-orbital space flight programs. Dr. Onoda stated that Japan is broadly interested in sub-orbital flight and space tourism. Important to such programs, she said, would be construction of spaceports, which Japan is also interested in. Dr. Onoda concluded the question by stating that working with international and private sector partners would also be key to building sub-orbital flight capabilities.

Following this question, Mr. Robert Wilson, Policy Analyst at The Aerospace Corporation's Center for Space Policy and Strategy, asked whether JAXA is involved in missile warning programs using satellites. In response, Dr. Onoda explained that JAXA, due to the organization's strong background in satellite development, offers technical support to the Japanese government on these programs.

Next, Mr. Jim Schoff, Senior Fellow at the Carnegie Endowment for International Peace, asked if U.S. restrictions on information sharing or export controls have ever become an obstacle for U.S.-Japan space cooperation. Mr. Nakamura answered first by saying that the United States and Japan have a strong framework for information sharing, and he is not aware that there is a hindrance in that field to space cooperation. Dr. Onoda added that while export controls have occasionally led to difficulties in manufacturing components, the United States and Japan have been able to make sure that joint projects are completed through strong communication between both parties.

Mr. Brendan Curry, Chief of Washington Operations for the Planetary Society, next asked if anyone from President-Elect Joseph Biden's transition team has reached out to JAXA or the Japanese Embassy yet concerning the continued U.S.-Japan space partnership. Dr. Onoda answered that many of those on the NASA transition team has interacted with JAXA, and she believes that the team has a strong understanding of the U.S.-Japan relationship. Mr. Nakamura added

that they are ready to begin talks at any time, as they know many people within the bipartisan space community.

Dr. Akimoto then turned the discussion towards China's space program. He asked the panelists how the U.S.-Japan space partnership will respond to China's developing space capabilities. In response, Mr. Nakamura agreed that China has shown great progress in its space activities, noting that China now operates the second-largest number of military satellites behind the United States. He emphasized the importance of continued dialogue between the United States and Japan and a commitment to building airtight SSA.

As the last question for the Q&A portion, Dr. Akimoto asked Dr. Onoda about the next generation of Japanese astronauts. Dr. Onoda answered that Japan will be opening its applications for new astronauts next year, and she encouraged all who are eligible to apply. In response, Dr. Akimoto noted that Japan's astronauts have been excellent representatives of Japan and have made positive impacts on U.S.-Japan relations.

Conclusion

Following the Q&A portion, the participants offered their closing remarks. Mr. Nakamura reiterated the importance of a "whole of government" approach to space policy, and he stated that he looks forward to working further with the United States on space. Dr. Onoda added that there is strong support in the Japanese government for continued work on space projects. In these difficult times, she emphasized the importance of "resilience," which is also the name of the spacecraft that took Dr. Noguchi along with three other astronauts to the ISS.

Sasakawa USA is grateful to Mr. Nakamura, Dr. Onoda, the Q&A participants, and attendees for the thoughtful discussion on the U.S.-Japan space partnership.

For more information about Sasakawa USA's Policy Briefing Series, click [here](#).