

November 15th, 2024 Space BD Inc.

Space BD Reselected as Service Provider for the Small Satellite Deployment Project Using ISS Module 'Kibo' and for the ISS 'Kibo' External Platform Utilization Service

Service Provision Extended to 2030, the End of ISS Operations

Space BD Inc., a leading space company providing various services including satellite launches and microgravity research on the ISS, is pleased to announce that it was reselected as the service provider for the small satellite deployment service using the International Space Station (ISS) module 'Kibo' and the on-orbit utilization service at Kibo's external platform for 2025 and beyond, following a public solicitation for these services by the Japan Aerospace Exploration Agency (JAXA). Having already been selected as the provider for both services until the end of 2024, Space BD has now been chosen to continue these services until 2030, in line with the extended ISS operations. This selection enables Space BD to further promote the utilization of space both domestically and internationally, with an eye towards the 'post-ISS' era.



Track Record of About 60 Projects Over 5 Years

Space BD has been selected as the private service provider for the small satellite deployment project conducted from the ISS's Japanese Experiment Module 'Kibo' since 2018, and for the on-orbit utilization service at Kibo's external platform since 2019. Initially, Space BD was selected to provide both services

until the end of 2024, which was the planned termination of ISS operations at that time. However, with the extension of ISS operations until 2030, JAXA opened a public call for service providers for 2025 and beyond. Space BD was reselected, resulting in the continuation of our appointment for these services.

1. Small Satellite Deployment from the ISS's Japanese Experiment Module 'Kibo'

This is a satellite deployment service utilizing the J-SSOD (JEM Small Satellite Orbital Deployer) system. The process involves transporting CubeSat-standard (*1) or 50kg-class (*2) small satellites to the ISS via supply spacecraft. These satellites are then transferred to space through the airlock of the Japanese Experiment Module 'Kibo' on the ISS, and finally deployed into orbit. The J-SSOD is the mechanism designed for deploying these small satellites from the Kibo module.

*1: 1U-6U: 10cm(L) x 10cm(D) with the following heights - 10cm (1U), 20cm (2U), 30cm (3U), 40cm (4U), 50cm (5U), or 60cm (6U). W6U: 10cm(L) x 20cm (D) x 30cm(H). *2: 55cm x 35cm x 55cm

"2: 55CM X 35CM X 55CM

詳細:<u>https://humans-in-space.jaxa.jp/en/biz-lab/experiment/facility/ef/jssod/</u>

As the service provider, Space BD offers a one-stop solution, from user acquisition to technical support necessary for deployment and subsequent satellite deployment in cooperation with JAXA. Leveraging our technical expertise gained from conducting user integration for approximately 50 satellites in this project, as well as our business development capabilities, as demonstrated by having transformed the satellite development process itself into educational content in conjunction with our education business, we aim to maximize the utilization of this service. Going forward, we strive to be a service provider that can present various satellite launch and deployment options to customers, including this project, while maintaining connections with numerous clients.

JAXA Release: <u>https://humans-in-space.jaxa.jp/kibouser/provide/j-ssod/74048.html</u> (Japanese only)

<Examples of Small Satellite Deployment>

- ISS Small Satellite Deployment Business: 13 Satellites Planned for Transfer to JAXA, Most in a Fiscal Year Since Founding <u>https://space-bd.com/en/2802/</u>
- Space BD completes the deployment of OPTIMAL-1 into orbit ArkEdge Space and 5 other companies supporting orbital demonstrations <u>https://space-bd.com/en/1931/</u>
- IHI and Space BD Successfully Launch "IHI-SAT" Vessel Position Information Receiving System Demonstration Satellite to ISS. Accelerating Space Utilization Business to Meet Maritime Logistics Optimization and Ocean Monitoring Needs <u>https://space-bd.com/release/740/</u> (Japanese Only)

<Examples of Educational Content Development>

 Satellite Launch and Operation Research Activities at Clark Memorial International High School (2021-) https://space-bd.com/en/2607/

> 2 <Contact> Space BD Inc. Public Relations (Haruna lizuka) Mail: pr@space-bd.com Tel: +81-3-6264-7177

https://space-bd.com/en/2587/ https://space-bd.com/release/2384/ (Japanese Only)

 "UP Hanamaki Project" - Satellite Development Program at Iwate Prefectural Hanamaki Kita High School (2021-) <u>https://space-bd.com/release/661/</u> (Japanese Only) <u>https://space-bd.com/release/2515/</u> (Japanese Only)

<Examples of Satellite Launches Using Alternative Methods>

- H3 Rocket
 <u>https://space-bd.com/en/2874/</u>
 <u>https://space-bd.com/en/2845/</u>
- Falcon 9(SpaceX) https://space-bd.com/en/1939/

2. On-orbit Utilization Service at Kibo's External Platform

This service exposes objects to space on an external experiment platform of Kibo, using the IVA-replaceable Small Exposed Experiment Platform (i-SEEP), which can accommodate devices up to 50cm × 70cm × 35cm in size and weighing up to 200kg. One of its significant features is the ability to retrieve and return the exposed items to Earth, allowing users to examine the actual objects that have been exposed to the space environment. Examples of apparatuses that can be mounted include components and parts intended for technology demonstration, as well as cameras and sensors for Earth observation.

For details:

chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://humans-in-space.jaxa.jp/kibouser/libr ary/item/jaxa_ef_en.pdf

Space BD, as the service provider, offers a one-stop solution that encompasses everything from user acquisition to technical support for equipment installation and operation, as well as recovery of experimental devices on the ground. To date, we have utilized this platform to achieve seven successful cases (including ongoing projects) in device demonstration experiments, as well as to create dozens of accomplishments in space entertainment and promotional uses. Going forward, we aim to further build on these achievements while continuously exploring entirely new ways to utilize space and entirely new values of space, with the goal of developing a business model that will play a leading role in the upcoming era of commercialization of space stations.

JAXA Release: <u>https://humans-in-space.jaxa.jp/kibouser/provide/iseep/74049.html</u> (Japanese Only)

<Examples of Device Demonstration Experiments>

- Providing ISS "Kibo" External Use Service for R&D Demonstration Experiment of Secret Key Sharing Technology https://space-bd.com/en/2535/
- Space BD provides ISS external platform utilization service to Sony Succeeded in demonstrating wireless communication signal reception in space Used Japan's first external operation systems for more efficient and easier on-orbit demonstration <u>https://space-bd.com/en/1950/</u>

<Examples of Space Entertainment and Promotional Uses>

- Second Round of Space Delivery Project "RETURN to EARTH" With Global Boys Group JO1 as Official Ambassadors Returns to Earth <u>https://space-bd.com/en/2456/</u>
- Space×Art×NFT Project Finally Heading to Space in Early November <u>https://space-bd.com/en/2565/</u>
- Traditional Crafts Returned from Space Transformed into One-of-a-Kind Traditional Artwork <u>https://space-bd.com/en/2670/</u>

Becoming the 'First Point of Contact' for Utilizing Outer Space Even after the ISS Era

In light of the rapid advancements in space development around the world in recent years, we aim to generate more use cases and establish new services that create synergies with existing business models through our continued selection as the provider for the two projects. Leveraging our extensive track record, we will function as the 'first point of contact' for all customers considering the utilization of outer space, contributing to their needs. Furthermore, even after the conclusion of operations on the ISS, we will utilize our experience to promote the diversification of space utilization and dedicate efforts to the large-scale industrialization of space.

About Space BD

Space BD is a one-stop service provider of various solutions to foster commercial utilization of space. Ranging from launch of small satellites with commercial launchers as well as via the International Space Station, to supporting pharmaceutical research with protein crystallization in microgravity, Space Bd can support everything from business plan formulation and market research to hands-on technical operations. As of Oct 2024, Space BD has supported over 80 satellite projects from and over 500 related missions.

URL: https://space-bd.com/en/