

New Cooperation Programme “KiboCUBE”:
Invitation to
**CubeSat Deployment into Orbit from the
Japanese Experiment Module “Kibo” of the ISS**

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Committee on the Peaceful Uses of Outer Space
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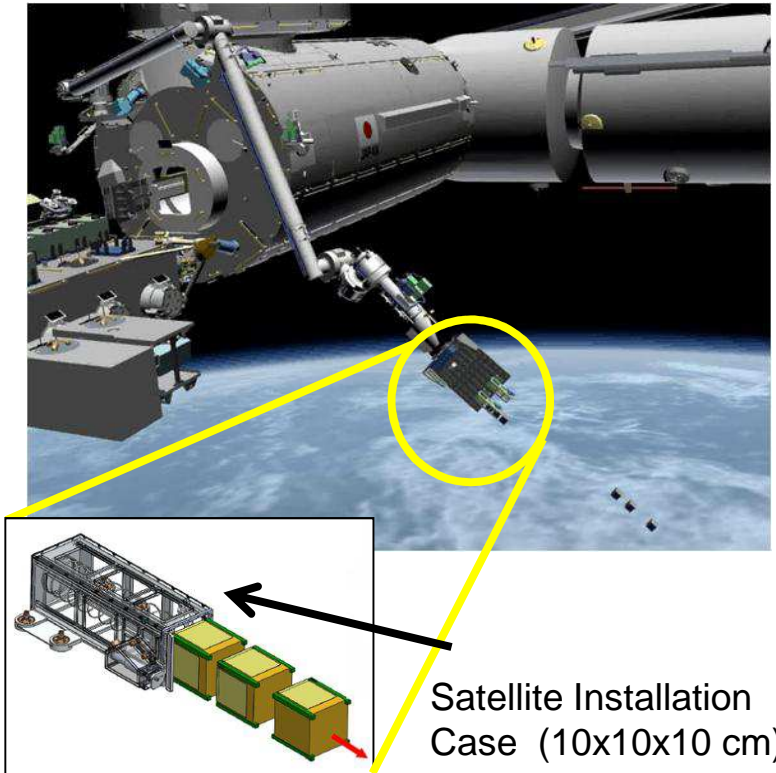
Photo: JAXA/NASA

1. CubeSat Deployment from “Kibo”



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Satellite Installation Case (10x10x10 cm)



Japanese Astronaut, Koichi Wakata, deploying CubeSats at Kibo

- **Characteristics of “CubeSats”**
 - Able to be developed in short period, with low cost.
 - An effective tool to demonstrate space technology and for the capacity-building of young engineers.
- **Small Satellite Orbital Deployer**
 - Unique CubeSat Deployment system developed by JAXA.
 - Enables deployment of CubeSats from ISS easier than direct deployment by a launch vehicle thanks to the lower vibration environment during launch.
 - CubeSats are stowed in a soft bag and carried to the ISS together with other cargo.
 - Use the Robotic Arm and Airlock of Kibo without Extra-Vehicular Activity of astronauts.
- **Kibo is the sole facility of ISS for conducting this mission.**

1. CubeSat Deployment from “Kibo”



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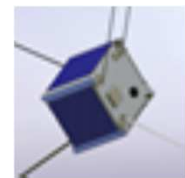
- ❑ 71 CubeSats from Japan, USA, Vietnam, Peru, Lithuania and Brazil have been deployed from Kibo so far by the CubeSat Deployers developed by Japan or the US.
- ❑ Further deployment of CubeSats from Kibo are being scheduled.

Past records of CubeSat Deployment from Kibo

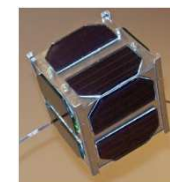
- Oct. 2012 5 CubeSats (3 from Japan, 2 from USA)
- Nov. 2013 4 CubeSats (1 from Japan/Vietnam, 3 from USA)
- Feb. 2014 33 CubeSats (30 from USA, 2 from Lithuania, 1 from Peru)
- Aug. 2014 12 CubeSats (12 from USA)
- Feb. 2015 1 CubeSat (1 from Brazil)
- Mar. 2015 16 CubeSats (16 from USA)



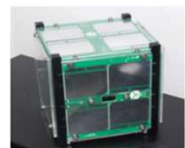
CubeSat from Vietnam
Deployed in Nov. 2013



CubeSat from Lithuania
Deployed in Feb.2014



CubeSat from Peru
Deployed in Nov. 2013



CubeSat from Brazil
Deployed in Feb.2015

SHORT VIDEO (1 minute)



2. New Cooperation Programme “KiboCUBE”

Concepts:

- **Provide UN Member States with an opportunity to deploy a “CubeSat” of their design and construction from the ISS Kibo.**
 - Approximately one CubeSat will be selected and expected to be deployed into space. Each selected entity will be provided with one-time opportunity to deploy a 1u(10cm × 10cm × 10cm) CubeSat.
 - In line with the mission and objectives of the UN Programme on Space Applications - Basic Space Technology Initiative (BSTI) and the Human Space Technology Initiative (HSTI).
- **Target entities are educational and research institutions from developing countries.**
 - Raise awareness of role that space science and technology plays in promoting sustainable development.
 - Contribute to building capacity in spacecraft engineering, design and construction.
- **Broaden space activities and applications more equitably and facilitating the development of human resources.**

KiboCUBE Cooperation - Milestone

Application	← 6 months →
Selection	← 3-4 months →
Agreement between JAXA and Selected Entity, I/F coordination	← 6-9 months(tbd) →
Launch/Cubesat Deployment	Launch would be conducted in late 2016 at the earliest but cannot be confirmed at this stage (TBD). ▲

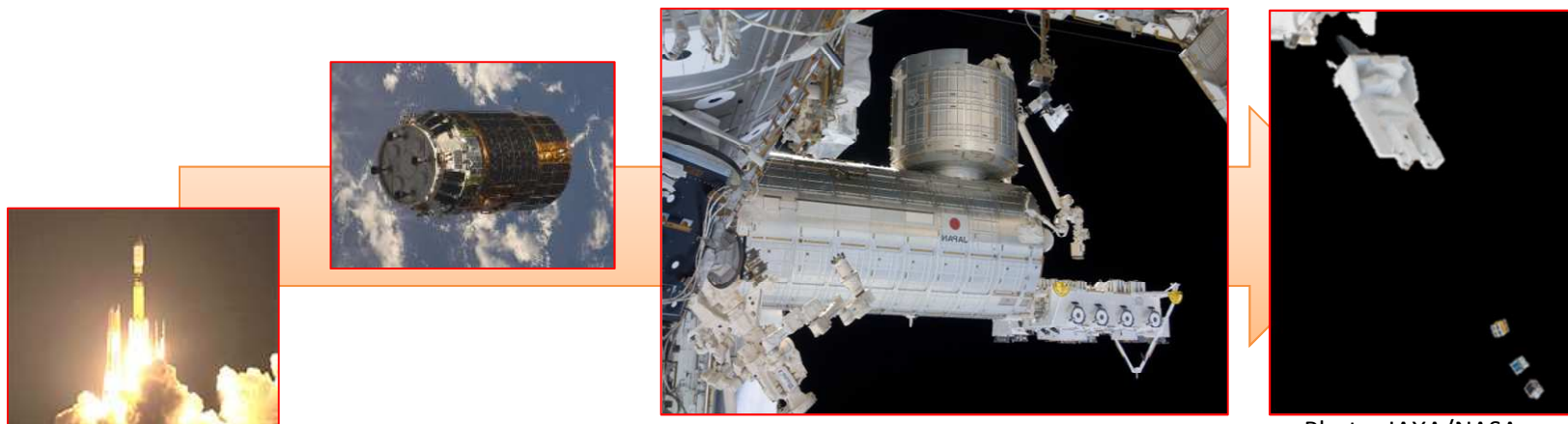


Photo: JAXA/NASA

Summary

- Japan has offered to establish a cooperation programme on CubeSat deployment from “Kibo” of ISS in cooperation with UN.
- This UN-Japan cooperation is aimed to allow newer users access to ISS and “Kibo”. Moreover, this cooperation offers developing countries an opportunity to deploy CubeSat easier.
- Japan continues contributing to the ISS program and sharing the values of the ISS with the world.

Thank you for your attention.

