

A close-up photograph of an astronaut in a white space suit, looking out from the helmet. The helmet's visor reflects the interior of the suit and the Earth in the background. The astronaut's gloved hand is visible on the right side of the frame. The background shows the curvature of the Earth and the blackness of space.

Japan's Human Space Activity 30-Year History

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*Photo Credit: JAXA/NASA

JAXA Astronauts

ACTIVE



Koichi Wakata



Soichi Noguchi



Soichi Noguchi



Akihito Hoshide



Kimiya Yui



Takuya Onishi



Norishige Kanai

FORMER



Mamoru Mohri



Chiaki Mukai



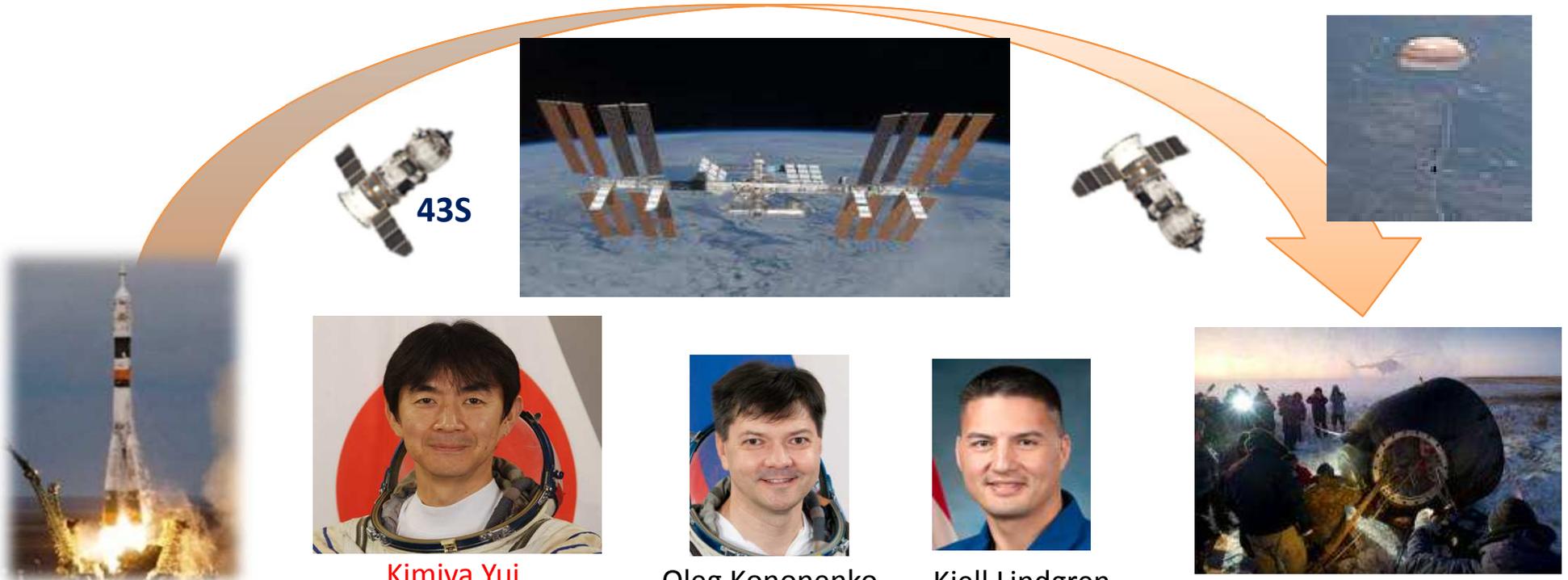
Takao Doi



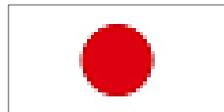
Naoko Yamazaki

Astronaut Yui's Next Mission

KIMIYA YUI 油井 亀美也



Kimiya Yui



Oleg Kononenko



Kjell Lindgren



History of JAXA Astronauts' Challenges



2013-2014:
Wakata became
**the first Japanese
ISS Commander**



2009:
First HTV's flight



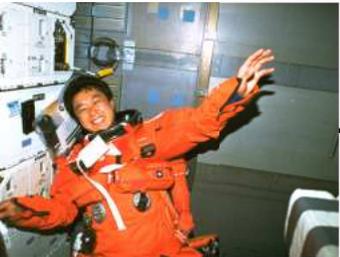
2015: Yui's first flight



ONISHI

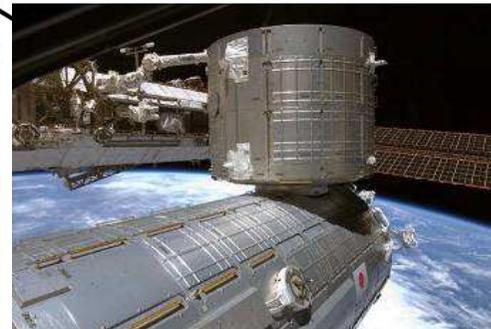


KANAI



1997:
Japanese first EVA

2008-2009:
Kibo construction



Kibo Construction



1992:
Mohri's first flight on
the Space Shuttle



1985:
Mohri, Mukai and Doi were selected as astronauts

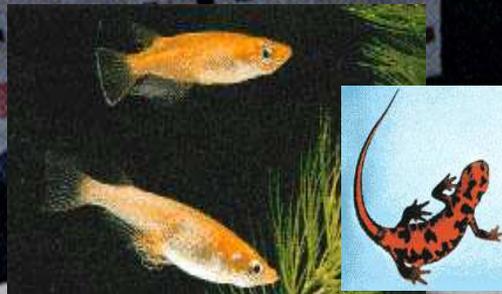


Dawn of Japan's Human Space Activities

- 7 Japanese astronauts flew 12 times on Space Shuttle
- Conducted scientific experiments
- Acquired experiences created Japan's human space technologies



Space-sickness Experiment



Aquatic animals' egg-laying behaviour
(medaka-fish, newts)



Plant Growth
Experiment



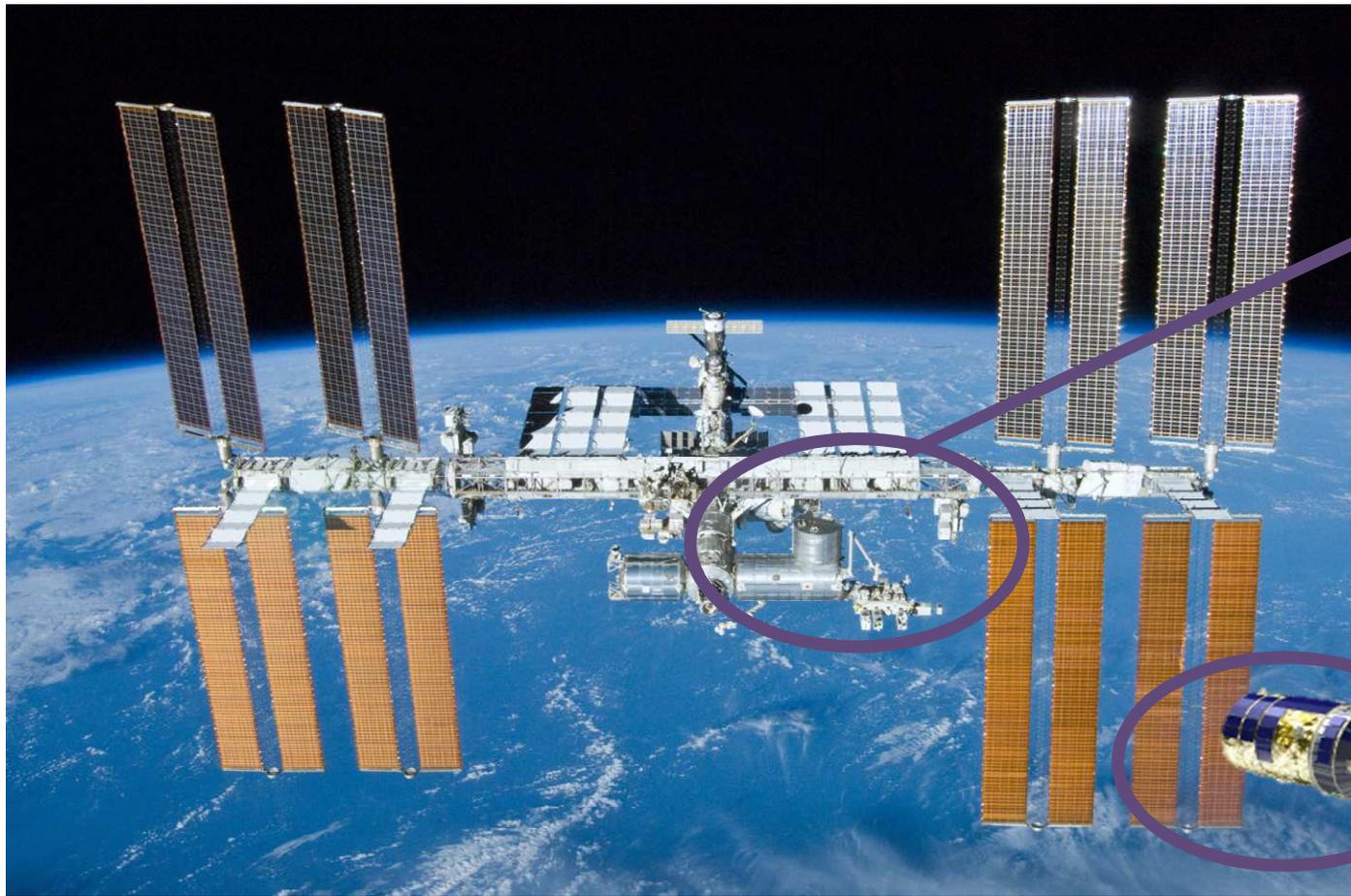
Extra Vehicle Activity



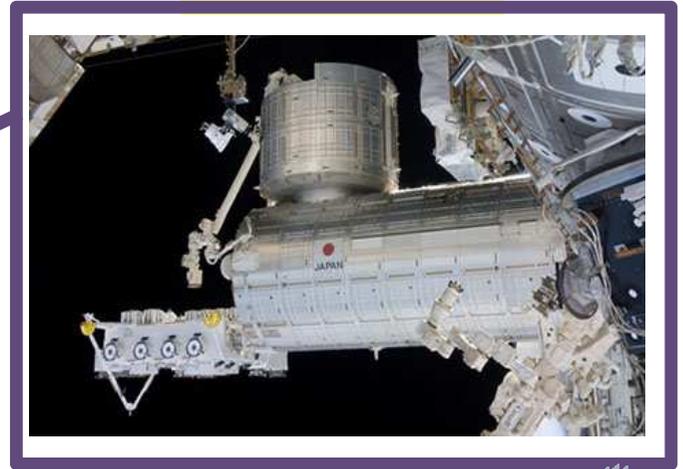
Robotic Arm Operation



Japan's Achievement in ISS Programme



Kibo



HTV



- Kibo and HTVs, making significant contributions in ISS
- Human space system technologies developed from Shuttle experiments



H-II

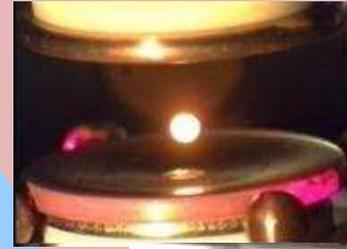
Positive Effects on the Ground

Ground Team



- Independent operation skills acquired by the Ground Team
- Broadened research fields and experienced researchers.
- Space photos and experiments inspiring children

Scientific Research



Space Education

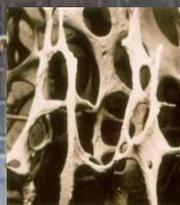


Space Utilization Today

- 4 Japanese astronauts completed 5 long-duration stays on ISS
- Various experiments for space medicine, micro-g research and future space exploration



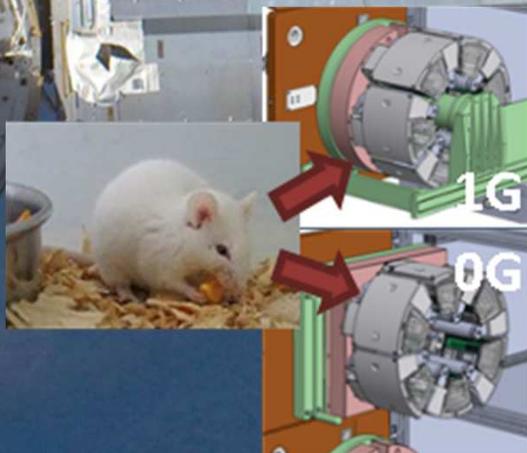
Bisphosphonates



Radiation Dose Measurement



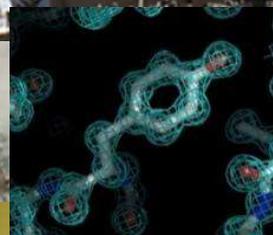
Biological Rhythms



Rodent Research



Protein Crystallization

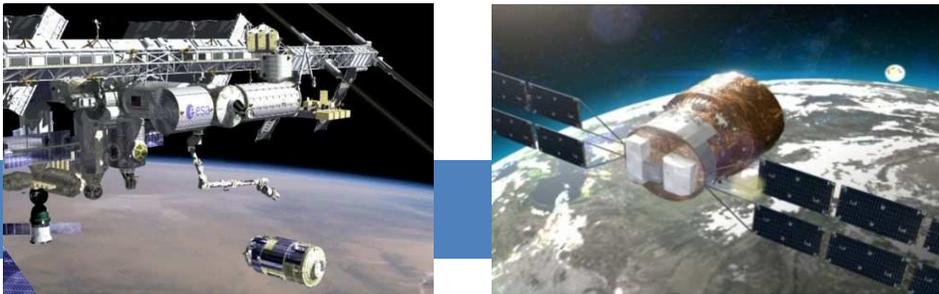


Small Satellites Deployment

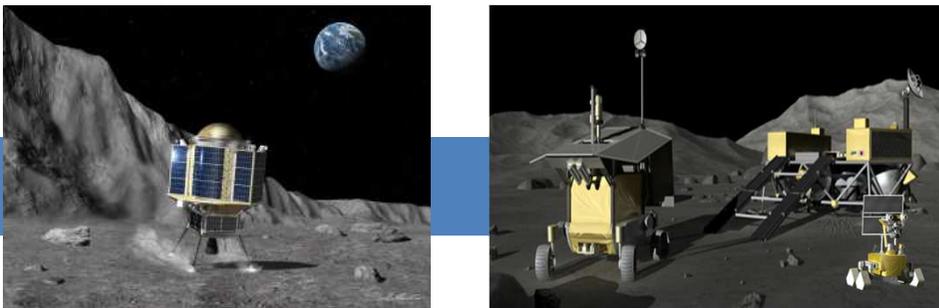
JAXA's approach for future space exploration

International Human Space Exploration

Technology development at ISS



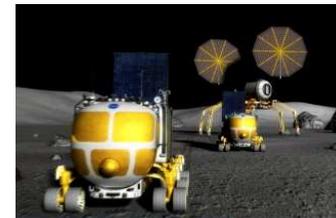
Robotic Precursor Missions



Human Lunar Exploration (2025~)



Human Missions in Lunar Vicinity



Human Lunar Surface Missions

Human Mars Exploration (2030~)

