

# **Space POD**

## **Commercial Opportunities in Debris Removal, SSA, and Collision Avoidance**

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Director General

National Space Policy Secretariat, Cabinet Office

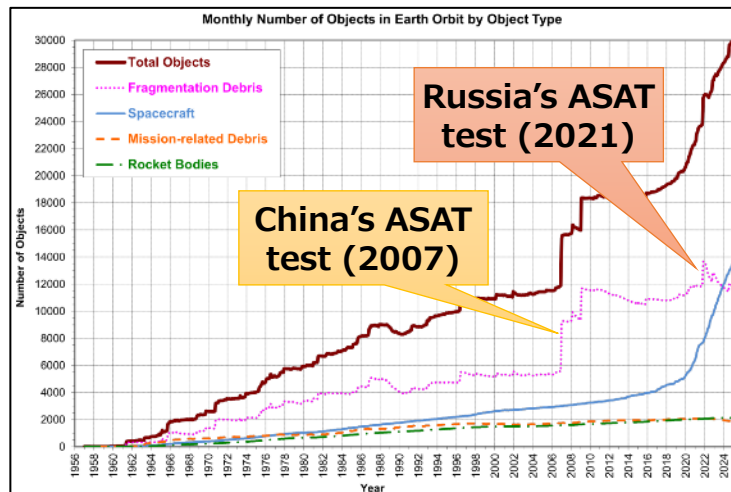
Government of Japan

# The Changing Space Environment

- As space utilization expands, satellites and debris are rapidly increasing—raising the risk of collisions in orbit.
- As counterspace capabilities advance, threats in space are also growing rapidly.

## Increase of Orbital Objects

- **Number of Cataloged Objects in Earth Orbit:** DA-ASAT Tests and Satellite Constellations caused increase of orbital objects.
- **Untransparent and irresponsible behavior** by certain actors are of concern.



<https://orbitaldebris.jsc.nasa.gov/quarterly-news/pdfs/ODQNv29i1.pdf>

## Threats and Risks: Counterspace Capabilities

- **2025 Space Threat Assessment:** CSIS Highlights the Growing Threat of Counterspace Capabilities
- **Diversifying Counterspace Threats:** Jamming, Spoofing, ASATs, and Cyberattacks etc.



<https://www.csis.org/analysis/space-threat-assessment-2025>

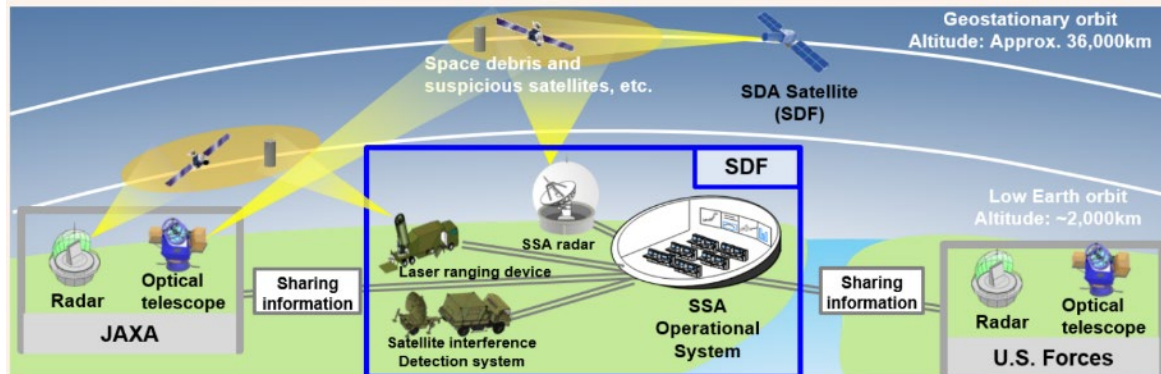


# Japan's Efforts ①

- As space threats and risks intensify, it is essential to establish a Space Domain Awareness (SDA) posture and enhance the resilience of space operations.
- Enhanced public-private collaboration is crucial to respond effectively to these evolving space security challenges.

## Security in Space

- To ensure the stable use of outer space, Ministry of Defense has been enhancing SSA and SDA capabilities.
- Japan Air Self-Defense Force (JASDF) started SSA/ SDA operation in March 2023.



## Public-Private Collaboration

- **The Public-Private Council on Enhancing the Stability of Space Systems** was established in October 2023.
- To enhance the effectiveness of the Public-Private Council, we conduct annual **Table-Top Exercises**.
- In February 2025, approximately 170 participants took part in the exercise.



Scene from the TTX

## Japan's Efforts ②

- To implement wide range of initiatives to respond to threats and risks in space.
- To build practical efforts in technology development and rulemaking in the areas of collision prevention, SSA, debris mitigation and remediation, and on-orbit services.

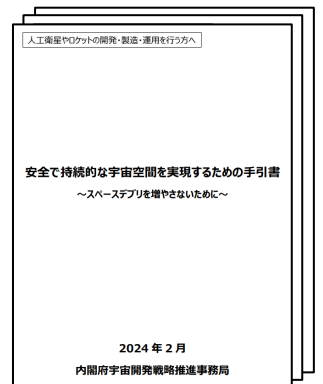
### Technology Development

- **Commercial Removal of Debris Demonstration (CRD2):** In February 2024, the ADRAS-J satellite (by JAXA and Astroscale) was launched. From May to November 2024, it successfully approached and observed a target piece of debris in orbit at close range.
- The project was conducted in a **transparent manner** in accordance with the **"Guidelines on a License to Operate a Spacecraft Performing On-Orbit Servicing"** (2021) under the Space Activities Act (2016).



### Rulemaking

- **"Guidelines on Collision Avoidance with Satellites, etc.":** In February 2025, a guidelines on satellite collision avoidance was released, outlining operational concepts and measures.
- **"Handbook for Realizing a Safe and Sustainable Space Environment":** In February 2024, a debris mitigation handbook was also released, based on JAXA's expertise, and Japan continues to share its efforts internationally.





# International collaborations①

- International discussions—particularly at the United Nations—are becoming increasingly important.
- Strong collaboration with allies and like-minded countries is vital as well.
- Japan joined Combined Space Operations (CSpO\*) Initiative in December 2023.

\* 10 members: AUS, CAN, DEU, FRA, GBR, ITA, JPN, NOR, NZL and USA

## Deliberations within the United Nations

- In December 2022, the resolution entitled “**Destructive Direct-Ascent Anti-Satellite (DA-ASAT) Missile Testing**” submitted by the US, Japan and 9 other countries, was adopted with the **support of 155 countries** at the Plenary Meeting of the UN General Assembly.
- In December 2024, the resolution entitled “**Weapons of Mass Destruction in Outer Space,**” submitted by Japan, United States, and Argentina, was adopted with the **support of 167 countries** at the Plenary Meeting of the UN General Assembly.



## International Symposium

- NSPS has been organizing **National Space Policy Secretariat Symposium** since 2016 with the aim of deepening discussions on safe and sustainable use of outer space.
- At this year's symposium, we were honored to welcome many distinguished panelists.



## International collaborations②

- In June 2025, Minister Kiuchi participated in COPUOS, representing Japan, and highlighted to the international community the importance of the safe and sustainable use of outer space.
- Japan and the UN co-hosted a side event on the occasion of COPUOS to introduce Japan's advanced space technologies and their applications to the international community.

### COPUOS Plenary Session

- Japan shared its **advanced technologies** and **domestic laws and guidelines** for space debris mitigation/ remediation.
- Japan expressed its **commitment to lead rule-making discussions at the UN** on this global challenge.



General Statement  
by Minister Kiuchi



Overview of the COPUOS Venue

### Side Event

- Following **Minister Kiuchi's speech**, a **panel discussion** was held under the moderation of Ms. Aarti Holla-Maini, UNOOSA Director.
- The event also featured presentations on **digital twin technology** (by SpaceData Inc.) and **KiboCUBE program** (by UNOOSA).



Speech by Minister Kiuchi



Panel Discussion



**Cabinet Office**