

Technical presentation for the 50<sup>th</sup> Session of the Scientific and Technical Subcommittee of  
the United Nations Committee on the Peaceful Uses of Outer Space

Feb. 14, 2013

# ***Report on the Workshop*** ***“Protection of Space Environment”***

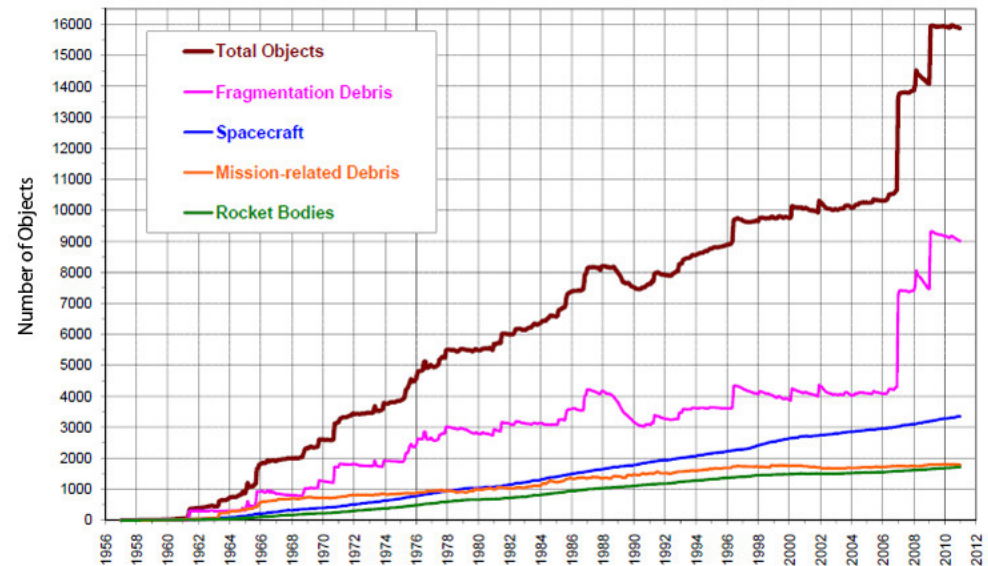
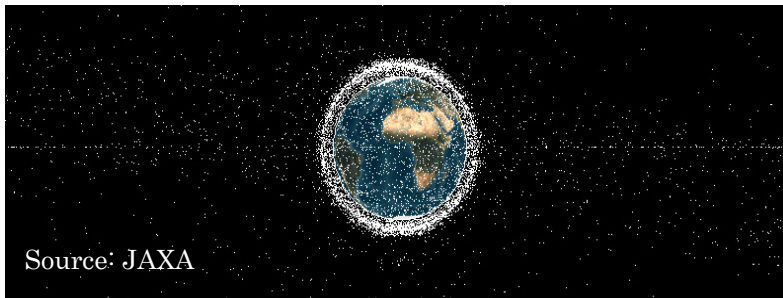
held in Kuala Lumpur, Malaysia on 12<sup>th</sup> December, 2012



**Space Policy Division, Foreign Policy Bureau  
Ministry of Foreign Affairs of Japan**

# Why did we hold this workshop?

## Background



Source: JAXA

## Purpos

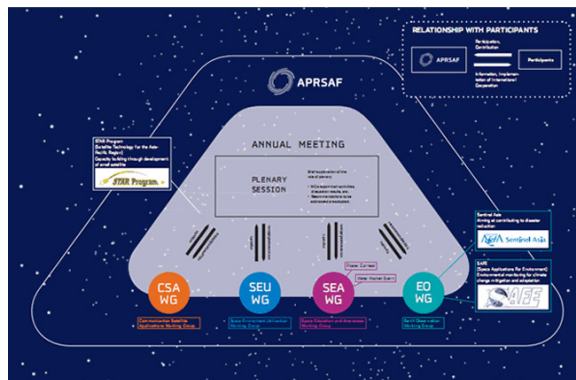
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- To enhance awareness of space environment issues, especially in the Asia-Pacific region.
- To widely share information regarding space debris among Asian-Pacific countries.
- To contribute to the discussion of the long-term sustainability of outer space activities in the STSC.

# Occasion

## - APRSAF-19 (Asia-Pacific Regional Space Agency Forum)

**Open and flexible regional cooperation framework with voluntary and cooperative activities.**

Co-organized by Ministry of Science, Technology and Innovation (MOSTI) of Malaysia, National Space Agency (ANGKASA) of Malaysia, Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) and Japan Aerospace Exploration Agency (JAXA)



4 Working Groups (Earth Observation, Space Education and Awareness, Space Environment Utilization, Communication Satellite Applications)

4 Initiatives (Sentinel Asia, SAFE(Space Applications for Environment), Climate R3, Kibo-ABC).

About 400 participants in APRSAF-19.

## - UNIDIR Seminar “Ensuring Asia-Pacific’s Secure and Sustainable Use of Space”

**Discuss the concept of a code for outer space activities, explore key content aspects of a code and provide a platform for discussion on the application of such an initiative in an Asia-Pacific context.**

**Session 1 : Development of an international code of conduct for outer space activities**

*Chair: Mr. Ben BASELEY-WALKER, Programme Lead, Emerging Security Threats Programme, UNIDIR*

**Session 2 : Regional views on a code of conduct for outer space activities**

*Chair: Mr. NISHINAGA Tomofumi, Director of Space Policy Division, Ministry of Foreign Affairs of Japan*

# Speeches

## ◆ Welcome Speech

Dr. Mustafa Din Subari

Director General of National Space Agency(ANGKASA), Malaysia

*Welcomed this significant workshop.*



## ◆ Keynote Speech

Dr. Yasushi Horikawa, Chairman of COPUOS

*Most highlighted topic discussed at COPUOS.*

## ◆ Invited Speech

Dr. Mazlan Othman, Director of OOSA

*Function and challenges of UNOOSA for sustainable space activities.*



## ◆ Space Debris – An overview

Dr. Peter Martinez, Chairman of the Working Group on the Long-term Sustainability of Outer Space Activities, COPUOS

*International technical and regulatory discussions about space debris.*

# Technical Presentations

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## ◆ Research Topics for Asia-Pacific Regional Collaboration in the Area of Orbital Debris Issues

Dr. Toshiya Hanada, Professor of Kyushu University

- ✓ Technical solution for space debris mitigation
- ✓ Efficient space debris observation research
- ✓ IDEA(In-situ Debris Environmental Awareness) project: a small satellite project for the observation of tiny debris ( $\geq 1\text{mm}$ )

## ◆ Space Operations - Risk Mitigation Experience from Collision -

Mr. Kaneaki Narita, Director of Consolidated Space Tracking and Data Acquisition Department, JAXA

- ✓ Collision Risk Mitigation and the activities of the Consultative Committee for Space Data Systems (CCSDS)
- ✓ COPUOS Space Debris Mitigation Guidelines

# Panel Discussion: *To mitigate space debris*

## Moderator

- Dr. Peter Martinez, Chairman of the WG of COPUOS

## Panel Group

- Dr. Michael Green, General Manager of the Manufacturing Innovation Branch in the Manufacturing Division of the Department of Industry, Innovation, Science, Research and Tertiary Education, Australia

- Dr. Toshiya Hanada, Professor of Kyushu University, Japan

- Dr. Azmi Hassan, GeoStrategist, Universiti Teknologi Malaysia(UTM), Malaysia

- Mr. Kaneaki Narita, JAXA, Japan

- Ms. Clara Yatini, Director of Space Science Center, National Institute of Aeronautics and Space of Indonesia(LAPAN), Indonesia



## Discussions

### ◆ Public awareness of the space debris issue:

Different perceptions, lack of awareness (Australia), little attention (Malaysia), recognized as important issue (Indonesia), Understood by many people (Japan)

### ◆ International deal on space debris issue: shared importance for rule making:

Importance of establishing a code of conduct as a guideline (Australia), rule making is important (Malaysia, Indonesia), necessary to identify and discuss space debris issue at the government level, observation is key (Japan)

### ◆ Effective utilization of regional initiatives such as APRSAF:

Policy, challenges, information sharing and outreach should be included (Australia), support from space fairing nations should be considered (Malaysia), collaboration with APRSAF on rule making and information dissemination (Indonesia), require international guidelines, Cooperation/collaborative project of Asia-Pacific at space debris observation (Japan)



# Conclusion

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- About 40 attendees from more than 15 countries participated in this workshop.
- Substantial and productive discussions among experts.
- Synergy with the UNIDIR seminar and APRSAF-19.
- Reached common understanding on the necessity to maintain space environment and its rule making.
- Japan would like to continue pursuing outreach activities that offer full recognition to the significance of protecting the space environment. We hope to further collaborate with regional initiatives such as APRSAF.