The summary of the Workshop on the Protection of Space Environment

On 12th December 2012, the Ministry of Foreign Affairs of Japan (MOFA) held the Workshop on the Protection of Space Environment in Kuala Lumpur, Malaysia, in parallel to the 19th Asia-Pacific Regional Space Agency Forum (APRSAF-19) sponsored by Ministry of Education, Culture, Science and Technology of Japan, Japan Aerospace Exploration Agency (JAXA), the Ministry of Science, Technology and Innovation (MOSTI) and Malaysian National Space Agency (ANGKASA).

# 1 Purpose

The purpose of this workshop was to address the challenges of outer space utilization via long-term sustainable methods, to share the importance of the protection of space environment for mainly Asia-Pacific region countries in which interests for outer space activities have increased in recent years, to further countermeasures by suppressing space debris created by space activities, and to ensure safe, stable and sustainable space activities and utilization by space utilizing countries including Japan.

# 2 Opening remarks and speeches

- (1) First, Dr. Mustafa Din Subari, Director General of the ANGKASA welcomed this workshop, and mentioned that the problems of outer space are increasing along with the increase of space activities in recent years. He stressed the importance of creating an international code and many countries including Malaysia would agree to the International Code of Conduct proposed by EU.
- (2) Next, Dr. Horikawa, Chairman of the United Nations Committee on Peaceful Uses of Outer Space (COPUOS), gave a keynote speech on the significance of this workshop, the activities of COPUOS and so on.
- (3) Moreover, invited guest Dr. Mazlan Othman, Director of the United Nations Office for Outer Space Affairs (OOSA) gave a speech on the organization of OOSA, the challenges in the field of outer space including space debris, the importance of long-term sustainability of outer space activities and so on.

# 3 Technical Presentations

- (1) Dr. Peter Martinez, Chairman of the Working Group on the Long-term Sustainability of Outer Space Activities, COPUOS, gave an overview of the situation and influence of space debris, solutions from the perspective of science and technology, and international regulatory frameworks by multilateral countries, etc.
- (2) Next, Dr. Toshiya Hanada, Professor of Kyushu University, offered more details on the situation of space debris and a project using a small satellites network. Then, Mr. Kaneaki Narita, Director of the Consolidated Space Tracking and Data Acquisition Department, of Japan JAXA, explained the operation to mitigate the risk of satellite collisions.

# 4 Panel Discussion

The panel discussion "to mitigate space debris" was completed with the help of Dr. Martinez serving as a moderator and experts related to outer space in the Asia-Pacific region serving as panellists. Most of the panellists commented that making a code is needed to protect space environment. Most agreed on the importance of the protection of space environment with the experts in Asia-Pacific regional countries.

# 5 Others

After this workshop, MOFA and United Nations Institute for Disarmament Research (UNIDIR) co-held the regional seminar "Ensuring Asia-Pacific's Secure and Sustainable Use of Space: The role of norms of behavior" in regards to the code of conduct. The purpose of this seminar was to offer the Asia-Pacific region information and enhanced recognition on the international code of conduct proposed by EU. It proved to be a very effective discussion on the importance of making a code and its process. (Reference)

- (1) Handout
- (2) Speech Documents

•Keynote speech (Dr. Horikawa)

·Invited speech (Dr. Othman)

- (3) Technical Presentation Document
  - Dr. Martinez, Chairman of the Working Group on the Long-term Sustainability of Outer Space Activities, UNCOPUOS
  - ·Dr. Hanada, Professor of Kyushu University
  - $\cdot$  Dr. Narita, Director of Consolidated Space Tracking and Data Acquisition Department, JAXA
- (4) Panel Discussion

(Moderator)

- •Dr. Peter Martinez, Chairman of the Working Group on the Long-term Sustainability of Outer Space Activities, UNCOPUOS
- (Panelists)
- •Dr. Michael Green, General Manager of Manufacturing Innovation Branch, Department of Industry, Innovation, Science, Research, and Tertiary Education
- ·Dr. Hanada, Professor of Kyushu University
- •Dr. Azmi Hassan, Associate Professor of University of Technology Malaysia
- Mr. Narita, Director of Consolidated Space Tracking and Data Acquisition Department, JAXA
- •Ms. Clara Yatini, Director of Space Science Center, National Institute of Aeronautics and Space of Indonesia

Behaviour (December 11, 2012) (external link)

•<u>APRSAF-19</u>

•<u>Outer Space</u>

• <u>Summary of International Code of Conduct for Outer Space Activities</u>

<sup>•</sup> Ensuring Asia-Pacific's Secure and Sustainable Use of Space: The Role of Norms of