Committee on the Peaceful Uses of Outer Space

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Agenda Item 12

Long-term Sustainability of Outer Space Activities

Madam Chair and Distinguished Delegates,

Today, space environment is being used by an increasing number of States, international organizations and non-governmental entities. The proliferation of space debris, the increasing complexity of space operations, the emergence of large constellations and the increased risks of collision and interference affect the sustainability of space activities. Given the rapid changes and evolution of the outer space environment and the related technologies, the guidelines for long-term sustainability of outer space activities are becoming more and more relevant tool for the rule of law in the outer space.

In this respect, Japan has been actively engaged in the negotiation of LTS guidelines since its beginning. It was regrettable that the compendium of the LTS guidelines was not endorsed by the COPUOS after the eight years of work. Yet, in front of us, we have a set of 21 voluntary guidelines, which was agreed in COPUOS by consensus, and represents the agreed best practices of space activities by member states. Japan, along with many colleagues in the COPUOS, encourages all member states to respect and voluntary implement the agreed 21 LTS guidelines.

Let us introduce some of the Japanese examples of the fulfillment of the LTS guidelines.

The first five LTS guidelines are on “Policy and regulatory framework for space activities.” In Japan, “Space Activity Act” was enacted in last November. The Act enables Japanese Government to exercise continuous supervision over activities, maintains a register of space objects and is involved in the planning, review and authorization of space activities. The Act ensures the accurate and smooth

implementation of international obligation including the Outer Space Treaty, ensure public safety and protect people affected by relevant damage. Japan established a system for permission to launch a vehicle and control of spacecraft and compensation scheme for damage of third party caused by launching a vehicle. Under the Space Activity Act, all plans are required to satisfy criteria such as prevention of on-orbit break-up and post-mission disposal, thereby decrease the number of space debris.

Some LTS guidelines are devoted for the space debris. Japan takes solid steps to the issue of space debris through domestic legal instrument, technical standards and research and development.

Japan implements space debris mitigation guidelines, such as the Space Debris Mitigation Guidelines of the COPUOS and voluntary guidelines proposed by the Inter-Agency Space Debris Coordination Committee (IADC) through the JAXA standard. JAXA standard was initially established in 1996 and it was one of the world first space debris mitigation guidelines. With regard to multilateral coordination, Japan has been an active member of Inter-Agency Space Debris Coordination Committee (IADC) and hosted the 36th IADC last June in Tsukuba, and 147 participants from various space agencies discussed on the possibility to revise the IADC guideline to include numerical criteria, given the increasing congestion of outer space and the rise of large constellation business model. Another international contribution is that Japan has been actively engaged in and leads the discussion of international rating scheme on debris mitigation measures of satellites in the World Economic Forum to encourage industry to voluntary commit to decrease the number of space debris.

Furthermore, LTS guidelines include the guideline on the measurement, monitoring and characterization of the properties of space debris. Space Situational Awareness (SSA) system is the cornerstone of the measures of space debris. Related ministries and agency in Japan are in the process of strengthening the system in tandem with the international partners. Our plan is to start the operation of new SSA radar and optical telescope system no later than 2023.

Research and development is essential approach to address the issue of space

debris. Japan is conducting debris research at a national level. To mitigate the collision, removal of large size debris such as upper stages of launch vehicle is effective. JAXA is investigating the active debris removal (ADR) system for removing large debris objects. JAXA in partnership with the private sector are jointly committed in programs including research, ground testing, and demonstration in orbit. JAXA is going to make a technical presentation on space debris research including observation, modeling, in-situ measurement of small debris, ADR, ground testing in the morning of Monday 18th February.

Four LTS guidelines are on international cooperation, capacity-building and raising awareness of space activities. Japan supports capacity-building initiatives and promotes regional and international cooperation to support the long-term sustainability of outer space activities and Sustainable Development Goals (SDGs). At the regional level, Japan has led 25 times of Asia-Pacific Regional Space Agency Forum, APRSAF, which is the largest space-related conference started in 1993. A technical presentation on Japan's contribution to disaster management in Asia will be made in the afternoon of Wednesday 20th February. Another technical presentation of Senior Advisor of JAXA and Astronaut, Dr. Chiaki Mukai, in the morning of Friday 15th February, is on expanding partnerships in space exploration and developing technology for space habitation and its application to the earth.

Japan would like to set an example of maintaining the outer space secure and open for exploration, use and international cooperation by current and future generations and valuable for sustainable development.

I would like to end my statement by restating our commitment to 21 LTS guidelines mentioned above and once again encouraging all member states to respect and voluntary implement those guidelines.

Thank you, Madam Chair.