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English only

**Committee on the Peaceful
Uses of Outer Space
Legal Subcommittee
Sixty-second session
Vienna, 20–31 March 2023
Item 12 of the provisional agenda*
General exchange of information on non-legally binding
United Nations instruments on outer space**

Compendium on mechanisms adopted in relation to non-legally binding United Nations instruments on outer space

Submissions by Hungary, Japan and Slovakia

Note by the Secretariat

1. In accordance with the recommendation of the Legal Subcommittee, States members of the Committee should continue to be invited to submit their responses to the secretariat for inclusion into the compendium on mechanisms adopted in relation to non-legally binding United Nations instruments on outer space (A/AC.105/12.60, para. 153).
2. The compendium, as well as the questionnaire on the general exchange of information on non-legally binding United Nations instruments on outer space, containing the templates for collecting information, are located at:
www.unoosa.org/oosa/en/ourwork/spacelaw/nlbcompendium.html
3. The present conference room paper contains replies received from Hungary, Japan and Slovakia.

* A/AC.105/C.2/L.323



Hungary

[Original: English]
[22 December 2022]

The Hungarian Government adopted the country's first National Space Strategy in 2021. The Strategy describes the global environment of the national space sector and defines its short and medium-term development objectives.

Japan

[Original: English]
[16 March 2023]

Compendium on mechanisms adopted in relation to non-legally binding United Nations instruments on outer space

Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries (Space Benefit Declaration)

National mechanism(s):

- 1. Basic Plan on Space Policy**
- 2. Medium to Long Term Objectives for the Japan Aerospace Exploration Agency (JAXA)**

Description:

1. Basic Plan on Space Policy

- (1) The type of national mechanism

A comprehensive space policy of Japan is created pursuant to Article 24 of the Basic Space Law (Law No. 43, 2008)

- (2) Description

- The Basic Plan on Space Policy, as a comprehensive space policy of Japan made pursuant to Article 24 of the Basic Space Law (Law No. 43, 2008), has been updated five times, namely in 2009, 2013, 2015, 2016, and 2020 respectively. The current Basic Plan contains, consistently from the first edition, a section referring to the promotion of international cooperation of Japan's space activities, which can be construed as Japan's implementation of the non-legally binding instruments of the 1996 Space Benefit Declaration. Some of the recommendations in the Basic Plan of 2020 suggest to:
 - Regularly hold governmental space dialogues and promote international space cooperation with our partners, including joint development of advanced technology, piggyback launch of mission payloads, and joint utilization of satellite data.
 - Actively participate in international frameworks such as the Group on Earth Observations (GEO), the Committee on Earth Observation Satellites (CEOS) to maximize the value of using Earth Observation data for sound decision making, and the Asia-Pacific Regional Space Agency Forum (APRSAF) to promote international space cooperation that will lead to strengthening diplomatic relationships.
 - Contribute to building the space policy community by supporting the establishment of space agencies, national space legislation, and space policy in emerging space-faring nations, especially in the Asia-Pacific region. Such activities are expected to function as transparency and confidence-building measures.

- Promote international space cooperation by leveraging Japan's strengths and contribute to addressing global issues in the fields of energy, climate change, the environment, food, health, and disaster management, and in achieving the SDGs; and to strengthen maritime-space cooperation and contribute to monitoring and surveillance of maritime activities. To realize these activities, Japan will promote capacity building and provide equipment and services in accordance with the needs of our partners, especially in the Asia-Pacific region.
- Promote Japan's satellite development and utilization for advancing international cooperation.

(3) Management and supervision

Cabinet Office

(4) Authority in charge

Cabinet Office

2. Medium to Long Term Objectives for the Japan Aerospace Exploration Agency (JAXA)

(1) The type of national mechanism

In Japan, the competent ministers formulate the Medium to Long-term Objectives concerning the running of operations based on Article 35-4 of Act on General Rules for Incorporated Administrative Agency and Article 19 of Act on the Japan Aerospace Exploration Agency, National Research and Development Agency, and direct the Agency accordingly.

(2) Description

The Medium to Long Term Objectives for JAXA includes the following:

- Satellite remote-sensing
 - JAXA will provide satellite data to organizations abroad, thereby contributing to the creation of a mutually supportive and beneficial relationship with organizations abroad and reducing disaster damages overseas.
 - JAXA will provide satellite data to users in Japan and overseas to tackle climate change issues, promote international cooperation and cooperate on programs to counter climate change based on government policies. By promoting these cooperation activities, JAXA aims to enhance the utilization of satellite data so that it is regarded as an index or evaluation parameter to tackle climate change issues.
- International Space Station (ISS)
 - Through the operation of the Japanese Experiment Module "Kibo", the development of HTV-X and activities conducted by Japanese astronauts, JAXA will continue to play a pivotal role on the ISS and will also extend ISS utilization opportunities to other countries.
- International space exploration
 - Japan will participate in the Artemis Program. For the Gateway, an outpost orbiting the moon, JAXA will provide habitation capability and logistics resupply based on the decision by the Government of Japan through leveraging the knowledge and technology acquired from the ISS program and space science missions. JAXA is also going to promote exploration missions on the lunar surface together with its international and private partners aiming to realize sustainable activities on the Moon and beyond.
- Promotion of international cooperation and development overseas

- JAXA will make contributions to growing space utilization and the space market in, *inter alia*, ASEAN countries by advocating the utility of our space utilization and space related technologies in Japan and overseas through active communication with each country's space agency and relevant agencies utilizing space and with international organizations. Furthermore, JAXA will train personnel who will build and maintain a mutually beneficial relationship with Japan to that end.
- In addition, JAXA will endeavour to promote an international discussion on issues of law and ordinance relating to the continued and peaceful utilization of space at, *inter alia*, the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS).

(3) Management and supervision

- The competent ministers shall refer to the Basic Plan on Space Policy when updating the Medium to Long-term Objectives. (Article 19, Act on the Japan Aerospace Exploration Agency, National Research and Development Agency)
- JAXA shall prepare a Medium to Long-term Plan based on the Objectives and shall obtain an authorization from the competent ministers. (Article 30, Act on General Rules for Incorporated Administrative Agency)
- JAXA shall formulate an Annual Plan and shall notify it to the competent ministers (Article 31, Act on General Rules for Incorporated Administrative Agency)
- JAXA shall undergo an evaluation by the competent ministers at the end of each business year and the last business year within the period for the Medium to Long-term Objectives. (Article 32, Act on General Rules for Incorporated Administrative Agency)

(4) Authority in charge

- Competent ministries

References:

1. Basic Plan on Space Policy (Japanese only)

<https://www8.cao.go.jp/space/plan/keikaku.html>

2. Medium to Long Term Objectives for JAXA (Japanese only)

http://www.jaxa.jp/about/plan/index_j.html

3. Principles Relating to Remote Sensing of the Earth from Outer Space

(1) The type of national mechanism

International Initiatives (“Sentinel Asia” and “International Charter”)

(2) Description

Japan's contributions focus on Principle 11 of the “Principles Relating to Remote Sensing of the Earth from Outer Space” through “Sentinel Asia” and the International Charter “Space and Major Disasters”. Recognizing the importance of the use of space technology for disaster risk reduction, Japan has been conducting emergency observations at the time of disaster and has been providing remote sensing data to affected countries through these frameworks.

“Sentinel Asia” is a Japan-led regional cooperation initiative under the Asia-Pacific Regional Space Agency Forum (APRSAF). As one of its unique characteristics, Sentinel Asia brings together space agencies, disaster management authorities, academia, and international organizations to jointly combat natural disasters by using space technologies.

The Asia-Pacific is the most disaster-prone region worldwide, susceptible to all sorts of natural disasters, such as floods, volcanic eruptions, earthquakes, and typhoons.

Sentinel Asia is aimed at contributing to preventing, mitigating, and reducing damage from these kinds of disasters in the region by co-sharing satellite data and its analysed information. Over 100 organizations in the Asia-Pacific region participate in this framework and more than 370 emergency observations have been conducted in total since its launch in 2006.

JAXA has been a member of the International Charter “Space and Major Disasters” since 2005 and has been actively supporting its activities in cooperation with 16 other Charter members. From November 2020 to April 2022, JAXA took over the Lead Agency position for the third time and successfully completed its tenure.

References:

1. Sentinel Asia

<https://sentinel-asia.org/>

2. International Charter “Space and Major Disasters”

<https://disasterscharter.org/web/guest/about-the-charter>

3. Principles Relevant to the Use of Nuclear Power Sources in Outer Space

There is no national mechanism as Japan does not use nuclear power sources in outer space.

4. Resolution 1721 B (XVI) of 20 December 1961 ((registration of launchings) International cooperation in the peaceful uses of outer space)

- (1) The type of national mechanism

- Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016);
- Manual Pertaining to the Notification for Registering Space Objects;
- Guidelines on a License to Operate a Spacecraft Performing On-Orbit Servicing.

- (2) Description

➤ Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016).

- (1) The type of national mechanism

National legislation

- (2) Description

In order to implement the United Nations treaties on outer space accurately and smoothly, to ensure public safety, and to contribute to enhancing the livelihoods of people and the development of their economies, Japan established two kinds of authorization schemes.

The first is a launch permission. A person who intends to launch a launch vehicle installing a satellite or satellites therein from the Japanese territory or from a ship or aircraft with Japanese nationality shall obtain a launch permission for each instance of launching from the Prime Minister.

The second is a license to control a satellite. A person who intends to control a satellite using a ground station for command and control located in Japan shall obtain a license for each satellite from the Prime Minister. This Act also established a compensation scheme for damages caused to a third party on Earth as well as to aircraft and other flying objects in flight caused by a launch vehicle (with or without a satellite or part thereof).

- (3) Management and supervision

Cabinet Office

- (4) Authority in charge

Cabinet Office

Reference:

<https://www8.cao.go.jp/space/english/index-e.html>

➤ **Manual Pertaining to the Notification for Registering Space Objects**

(1) The type of national mechanism

The instrument made by the Space Policy Secretariat of the Cabinet Office in order to ensure the registration of space objects in accordance with the 1975 Registration Convention and the UNGA Resolution adopted in 2007, titled “recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects” (hereinafter the “Registration Recommendations”) (A/RES/62/101 of 17 December 2007).

(a) National legislation

(2) Description

The Manual Pertaining to the Notification for Registering Space Objects (hereinafter the “Registration Manual”) was first made on 5 November 2018 and amended on 14 September 2019 by the Space Policy Secretariat of the Cabinet Office.

This Registration Manual has been made to collect information from those who launch space objects so that Japan can ensure the enhanced registration practice pursuant to the Registration Recommendations, in addition to the Registration Convention.

Following the enactment of Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No.76 of 2016) (hereinafter “Space Activities Act”), the National Space Policy Secretariat of the Cabinet Office has developed the Regulation for Enforcement of Act on Launching of Spacecraft, etc. and Control of Spacecraft (Cabinet Office Order No. 50 of 2017) and a series of guidelines and manuals, through which appropriate authorization and continuing supervision with respect to the launch of “satellites, etc.” (“satellites, etc.” means a launch vehicle aboard a satellite or satellites for the purposes of the Space Activities Act of Japan. See, at Article 2 (iii) of the Space Activities Act) and the control of the satellites have been made possible. One of such instruments is the Registration Manual.

The Registration Manual comprises seven parts: part I explicitly refers to the Registration Recommendations and requires the launch operator and the spacecraft control operator to make a notification to the Cabinet Office on the space object which has been launched into Earth orbit or beyond, etc. pursuant to the manners and methods of the Registration Convention and the Registration Recommendation.

Part II specifies the definition of the relevant terms.

Part III provides three types of notifications to the National Space Policy Secretariat of the Cabinet Office within 30 days of an occurrence of any of the three cases outlined below: i) newly launched space objects into Earth orbit or beyond; ii) change of the owner or operator of space objects (with respect to para. 4(a) of the Registration Recommendations); and iii) additional information on the space objects when the termination of the transmitting radio waves is completed, or re-entry of a space object is identified (with respect to Art. IV (2) and (3) of the Registration Convention). In case the controlled re-entry of an orbital stage is conducted soon after the placement of a satellite or satellites into the low-Earth orbit(s), notification of i) and iii) may be made at the same time.

Concrete objects on which notification shall be made to the Secretariat of the Cabinet Office correspond to the concept of Paragraph 3(c) of the Registration Recommendations, which specifies that “each space object should be registered separately”. Those objects are: i) spacecraft including rovers, planetary probes, transfer vehicles to the International Space Station (ISS) and an object separated on-orbit from a satellite; and ii) orbital stages and other parts released in outer space from a launch vehicle in outer space.

Part IV sets out the different processes of the launch operator and spacecraft control operator to notify its responsible space object pursuant to the said three types of notifications. The latest forms provided by the United Nations Office for Outer Space Affairs (UNOOSA) are used for notifying the information to the National Space Policy Secretariat. Newly released or separated space objects from the originally single spacecraft launched from the Earth are categorized in a “new registration of space object” and both the date of the launch of the original spacecraft and release/separation in outer space shall be informed (4.4.2 of the Registration Manual). In case of a release from the ISS, “territory or location of launch” shall be specified as the “International Space Station (ISS)” and the date of the release of a small satellite from the ISS is filled out in the column of “date of launch (hours, minutes, and seconds optional)” in the UNOOSA made form. The ISS is a multi-use facility in low-earth orbit provided by the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America.

The relevant parts of the Registration Convention, Registration Recommendation and the Space Activities Act are incorporated in Part V. Part VI specifies the point of contact and an example of the notification in Part VII.

Since the establishment of this manual, Japan has been registering objects in a timely manner, which were launched not only by governmental organizations but also by academia and industry. Such registries by academia and industry include recent launches such as TRICOM-1R launched in 2018 by the University of Tokyo, STARS AO launched in 2018 by the University of Shizuoka, GRUS-1A launched in 2018 by Axelspace Corporation, and ALE-1 launched in 2019 by ALE Co., LTD.

(3) Management and supervision

Cabinet Office

(4) Authority in charge

Cabinet Office

➤ **Guidelines on a License to Operate a Spacecraft Performing On-Orbit Servicing**

(1) The type of national mechanism

National legislation

(2) Description

Respecting the need for considerable transparency in licensing on-orbit servicing (OOS) missions, this document provides supplementary requirements for the spacecraft for the purpose of or with the capabilities of rendezvous, proximity operations or OOS by other means to other space objects to satisfy the statutory general requirements prescribed in the licensing criteria for spacecraft operation and its management in general. To this end, this document also provides some tips and sample measures on how to conform to each requirement.

(3) Management and supervision

Cabinet Office

(4) Authority in charge

Cabinet Office

Reference:

https://www8.cao.go.jp/space/english/activity/documents/guideline_oosgl.pdf

5. Other non-legally binding instruments on outer space

- Planetary Protection Panel (PPP)

(1) The type of national mechanism

- Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016)
- JAXA internal regulation (Planetary Protection Policy)
- JAXA standard “the Planetary Protection Program Standards (JMR-014)”

(2) Description

The Committee on Space Research (COSPAR) maintains and promulgates the COSPAR Planetary Protection Policy (hereinafter referred to as the “Policy”), as an international standard on procedures to avoid organic-constituent and biological contamination in space exploration, to provide accepted guidelines in this area to guide compliance with Article IX of the Outer Space Treaty and other relevant international agreements.

➤ **Act on Launching of Spacecraft, etc. and Control of Spacecraft (Act No. 76 of 2016)**

In Japan, under Act on Launching of Spacecraft, etc., and Control of Spacecraft (hereinafter referred to as the “Act”), an applicant for a license to control a spacecraft is required to meet the requirements prescribed in Article 22 of the Act which include avoiding harmful contamination of outer space, and Guidelines on License Related to Control of Spacecraft requires the applicant to take measures in compliance with the Policy.

JAXA has been undertaking several deep space exploration missions so far by applying the spacecraft design standards in each mission individually pursuant to the Policy. On the other hand, taking into consideration the evolution of future international space exploration missions for the Moon, Mars and so on, which will require JAXA to apply a number of spacecraft standards and designs necessary for planetary protection, JAXA decided to develop a new internal regulation and unified standard.

➤ **JAXA internal regulation (Planetary Protection Policy)**

JAXA developed an internal regulation on planetary protection which came into force as of 1 January 2019. This regulation stipulates the basic policy of JAXA’s planetary protection measures, definitions, and the principal task of responsible organization (Safety and Mission Assurance Department) in JAXA which includes the formulation of the standards, review, and external relations. Especially, this regulation determines the assignment of “Planetary Protection Officer (PPO)” in this Department.

➤ **JAXA standard “the Planetary Protection Program Standards (JMR-014)”**

JAXA formulated “the Planetary Protection Program Standards (JMR-014)” as of February 21, 2019, in consistent with the Policy. This policy determines JAXA’s planetary protection requirements, which mainly include the following:

- (1) Requirements on administrative aspects for Planetary Protection
- (2) Requirements on technical aspects for Planetary Protection (both forward and backward contamination)
- (3) Requirements on procedure aspects for Planetary Protection
- (4) Definitions of Requirements on Documents (DRD) and the relationship with each review

These Standards apply to (i) JAXA’s spaceflight mission, (ii) participation in JAXA’s spaceflight mission and (iii) JAXA’s participation in the spaceflight mission hosted by other organizations.

References:

- Japan submits this “JAXA’s current implementation of Committee on Space Research (COSPAR) Planetary Protection Policy” in response to the Note Verbal from the Secretary-General of the United Nations dated 9 October 2018 (Ref.: CU2018/431(A)/OOSA/CPLA) in connection with Agenda Item 11 of the 58th

Session of the Legal Subcommittee: General exchange of information on non-legally binding United Nations instruments on outer space.

- These Standards are publicly accessible in JAXA's website (currently, Japanese only).

<http://sma.jaxa.jp/TechDoc/Docs/JAXA-JMR-014.pdf>

Slovakia

[Original: English]
19 December 2022]

Non-legally binding mechanisms of the United Nations, such as, for example, the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space; Guidelines on the Long-Term Sustainability of Outer Space Activities of the Committee, are considered and taken into account in the draft of the “Act regulating Space Activities in Slovakia”.
