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English only

**Committee on the Peaceful
Uses of Outer Space
Legal Subcommittee
Fifty-eighth session
Vienna, 1–12 April 2019
Item 5 of the provisional agenda*
Status and application of the five United Nations
treaties on outer space**

**Questionnaire on the application of international law to small
satellite activities**

Note by the Secretariat

At its fifty-seventh session, in 2018, the Working Group of the Legal Subcommittee on the Status and Application of the Five United Nations Treaties of Outer Space agreed ([A/AC.105/1177](#), Annex I, para. 8) that States members and permanent observers of the Committee should continue to be invited to provide comments and responses to the “Questionnaire on the application of international law to small satellite activities” ([A/AC.105/1177](#), Annex I, Appendix II).

The present conference room paper contains replies received from Armenia and Indonesia to the questionnaire.

* [A/AC.105/C.2/L.308](#).



Armenia

[Original: English]
[Received on 4 December 2018]

Questionnaire on the application of international law to small-satellite activities

1. Overview of small-satellite activities

- 1.1 Are small satellites serving the needs of your society? Has your country determined whether small satellites could serve an identified technological or development need?**

The project for building small satellites is ongoing.

- 1.2 Is your country involved in small-satellite activities such as designing, manufacturing, launching and operating? If so, please list projects, as appropriate. If not, are there future plans to do so?**

The project for building small satellites is ongoing.

- 1.3 Which kind of entity in your country is carrying out small-satellite activities?**

National Academy of Science of Armenia.

- 1.4 Is there a focal point in your country responsible for coordinating small-satellite activities as part of your national space activities?**

Ministry of Transport, Communication and Information Technologies of Armenia.

- 1.5 Are small-satellite activities carried out in the framework of international cooperation agreements? If so, what type of provisions specific to small-satellite activities are included in such cooperation agreements?**

The project for building small satellites is ongoing.

2. Licensing and authorization

- 2. Do you have a legal or regulatory framework to supervise any aspect of small-satellite activities in your country? If so, are they general acts or specific rules?**

None yet.

3. Responsibility and liability

- 3.1 Are there new challenges for responsibility and liability in view of small-satellite activities?**

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- 3.2 How are liability and insurance requirements enforced on an operator in your country, for a small satellite under your country's responsibility, in the event that "damage" occurs on the surface of Earth, to air craft in flight or to another space object in orbit?**

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4. Launching State and liability

- 4.1 Since small satellites are not always deployed into orbit with dedicated rockets as in the case of larger satellites, there is a need for clarification in the understanding of the definition of “launch”. When a launch of a small satellite requires two steps – first, launching from a site to an orbit and, second, deploying the small satellite to another orbit – in your view, would the first step be regarded as the “launch” within the meaning of the United Nations treaties on outer space?**

Yes, the first step may be regarded as the “launch”.

- 4.2 Do you think that the current international regulatory regime is sufficient to regulate operators of small satellites or that there should be a new or different international regulatory approach to address operations of small satellites?**

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5. Registration

- 5. Does your country have a practice of registering small satellites? If so, does your country have a practice of updating the status of small satellites? Is there any legislation or regulation in your country that requires non-governmental entities to submit to the Government information for the purpose of registration, including updating of the status of small satellites they operate?**

The Republic of Armenia has no practice in registering small satellites.

6. Space debris mitigation in the context of small-satellite activities

- 6. How has your country incorporated specific requirements or guidelines into its national regulatory framework to take into account space debris mitigation?**

None incorporated yet.

Indonesia

[Original: English]
[Received on 1 April 2019]

1. Overview of small-satellite activities

1.1 Are small satellites serving the needs of your society? Has your country determined whether small satellites could serve an identified technological or development need?

Yes, small satellites are serving the Indonesian needs for the infrastructure in Space Technology. Small satellites are more affordable and require shorter development period. Indonesia currently utilizes the small satellites to serve the mission of Earth Observation, Ship Monitoring, and Emergency Communication during disaster, by using an Amateur Payload, as well as Earth magnetic measurement. In addition, small satellites technology could improve Indonesian connectivity and communication infrastructure.

1.2 Is your country involved in small-satellite activities such as designing, manufacturing, launching and operating? If so, please list projects, as appropriate. If not, are there future plans to do so?

Yes. Indonesia has developed three small satellites namely:

- a. LAPAN-A1/TUBSAT (launched 2007);
- b. LAPAN-A2/ORARI (launched 2015); and
- c. LAPAN-A3/IPB (launched 2016).

Indonesia is also developing a small satellite project called LAPAN-A4 (planned to be launched 2020).

1.3 Which kind of entity in your country is carrying out small-satellite activities?

The development of small satellite activities have been carried out by the Government and academic institutions including the research institution under LAPAN (Satellite Technology Center, LAPAN) and Surya University.

1.4 Is there a focal point in your country responsible for coordinating small-satellite activities as part of your national space activities?

Yes, the focal point is LAPAN as the Indonesian space agency.

1.5 Are small-satellite activities carried out in the framework of international cooperation agreements? If so, what type of provisions specific to small-satellite activities are included in such cooperation agreements?

Yes. Indonesia is currently conducting cooperation with other countries including Japan. LAPAN-A4 Satellite is designed to carry infrared cameras developed by Hokkaido University, Japan. The Implementation Agreement among LAPAN, BPPT, and Hokkaido University for Monitoring and Prediction of Extreme Weather Using Lightning Detection Network and LAPAN-A4 Satellite is a standard non-commercial agreement between research institutions. Meanwhile, Surya University has developed The CubeSat and planned to be released from KIBO-ISS under LAPAN-JAXA cooperation. The funding for the launch is under United Nations Office for Outer Space Affairs-JAXA KiboCUBE programme.

2. Licensing and authorization

2. Do you have a legal or regulatory framework to supervise any aspect of small-satellite activities in your country? If so, are they general acts or specific rules?

There is no specific regulation concerning small-satellite. The Law Number 21 of 2013 on Space Activities, Law Number 36 of 1999 on Telecommunications, regulates all satellite activities in Indonesia including small satellites.

3. Responsibility and liability

3.1 Are there new challenges for responsibility and liability in view of small-satellite activities?

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3.2 How are liability and insurance requirements enforced on an operator in your country, for a small satellite under your country's responsibility, in the event that "damage" occurs on the surface of Earth, to aircraft in flight or to another space object in orbit?

Indonesia has ratified the Convention on International Liability for Damage Caused by Space Objects, and has enacted Law Number 21 of 2013 on Space Activities. Therefore, its space activities are abode by the ruling of the Liability Convention and the provisions under the Law. Therefore, should there any event occurs concerning the abovementioned incidents, the Indonesian Government will take measures and responsibility in accordance to the Liability Convention.

4. Launching State and liability

4.1 Since small satellites are not always deployed into orbit with dedicated rockets as in the case of larger satellites, there is a need for clarification in the understanding of the definition of "launch". When a launch of a small satellite requires two steps – first, launching from a site to an orbit and, second, deploying the small satellite to another orbit – in your view, would the first step be regarded as the "launch" within the meaning of the United Nations treaties on outer space?

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4.2 Do you think that the current international regulatory regime is sufficient to regulate operators of small satellites or that there should be a new or different international regulatory approach to address operations of small satellites?

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5. Registration

5. Does your country have a practice of registering small satellites? If so, does your country have a practice of updating the status of small satellites? Is there any legislation or regulation in your country that requires non-governmental entities to submit to the Government information for the purpose of registration, including updating of the status of small satellites they operate?

Indonesian law regulates that any space object including small satellite must be registered. The registration to the United Nations is done by LAPAN based on Note Verbale Number [ST/SG/SER.E/INF/39](#), dated 18 September 2017 from the Permanent Mission of Indonesia to the United Nations (Vienna) addressed to the Secretary-General.

6. Space debris mitigation in the context of small-satellite activities

6. How has your country incorporated specific requirements or guidelines into its national regulatory framework to take into account space debris mitigation?

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