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**Committee on the Peaceful
Uses of Outer Space**
Legal Subcommittee
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Vienna, 28 March–8 April 2022

Draft report

Annex I

Report of the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space

1. At its 1014th meeting, on 28 March 2022, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, with Bernhard Schmidt-Tedd (Germany) as Chair.
2. From 29 March to 6 April 2022, the Working Group held four meetings. The Working Group considered the following items:
 - (a) The status of the five United Nations treaties on outer space;
 - (b) The set of questions of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space and the questionnaire on the application of international law to small-satellite activities;
 - (c) Potential recommendations on the registration of large constellations and megaconstellations.
3. The Working Group had before it the documents listed in paragraph [...] of the report of the Subcommittee on its sixty-first session.
4. At its 4th meeting, on 6 April, the Working Group adopted the present report.
5. The Working Group noted that its consideration of thematic priority 2 for the fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50), in accordance with the multi-year workplan contained in [A/AC.105/1122](#), annex I, had been completed at the sixtieth session of the Subcommittee. In that regard, the Working Group noted with satisfaction that the final document, entitled “Bringing the benefits of space to all countries: a guidance document on the legal framework for space activities” ([A/AC.105/C.2/117](#)), had been made available to the Subcommittee for its information at the present session, constituting an important achievement under the multi-year workplan.



6. The Working Group expressed its appreciation to the Chair of the Working Group and the Secretariat for the two summaries of responses received over the previous years to the sets of questions contained in appendices I and II to the present report (A/AC.105/C.2/2022/CRP.18 and A/AC.104/C.2/2022/CRP.19).
7. The Working Group agreed that States members and permanent observers of the Committee should continue to be invited to provide comments and responses to the set of questions provided by the Chair of the Working Group, taking into account the UNISPACE+50 process, as contained in appendix I to the present report. Any replies received would be made available in conference room papers.
8. The Working Group agreed 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, as contained in appendix II to the present report. Any replies received would be made available in conference room papers.
9. In relation to the sets of questions as contained in appendices I and II to the present report, the Working Group reaffirmed that the issue of large constellations and megaconstellations should continue to receive specific consideration in the responses to both sets of questions.
10. The Working Group expressed its satisfaction with the background paper by the Secretariat entitled “Registration of large constellations and megaconstellations” (A/AC.105/C.2/L.322), which had provided the Working Group with highly valuable information for its work on the topic.
11. The Working Group welcomed the ongoing work of the Office for Outer Space Affairs to develop an online registration portal to ensure the efficiency of registration submissions.
12. The Working Group reaffirmed the importance of achieving the most complete registration of space objects, as recommended by the General Assembly in its resolution 62/101, entitled “Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects”, and as contained in the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee on the Peaceful Uses of Outer Space (A/74/20, annex II), and noted that non-compliance with the registration requirements could lead to a situation where hundreds or even thousands of space objects in large constellations and megaconstellations remained unregistered.
13. The Working Group noted that, in order to raise awareness and support harmonization in the presentation of useful additional information, the Office for Outer Space Affairs could consider, in its ongoing process of developing an online registration portal, adding some specific questions under part D of the registration submission template in order to standardize the information provided in the registration of objects launched as part of a large constellation or megaconstellation.
14. The Working Group agreed that it should further discuss the following points during the sixty-second session of the Subcommittee, with a view to reaching an agreement on recommendations to be addressed to States of registry to support the enhancement of registration practices:
 - (a) The State of registry could inform the Office, as part of the registration process, whether the object being registered formed part of a constellation;
 - (b) The State of registry could inform the Office, as part of the registration process, about the operator and owner of a constellation;
 - (c) The State of registry could identify, in the information contained in the registration document, the point of contact responsible for queries on space objects in the constellation. That focal point could be a governmental entity or an authorized private entity with delegated responsibilities, such as the operator;

(d) In view of the multitude of space object registrations related to a constellation, the State of registry could use the first space object registration of a constellation to provide basic information on the constellation, the point of contact and the operator authorized to provide up-to-date information on the status of the constellation;

(e) The operator of a constellation would have the best overview of the objects in orbit, the objects intended to be launched, the objects already decayed and any general information about the constellation. Therefore, the State of registry could consider how to link the information available to the operator with the formal registration of the objects of the constellation, without affecting the official registration information submitted by States.

15. The Working Group agreed that the overall topic of registration of large constellations and megaconstellations should remain part of the continued work of the Working Group.

16. The Working Group noted that the Chair of the Working Group had announced, at the present session of the Subcommittee, that he would step down as Chair. The Group expressed its deep appreciation to Mr. Schmidt-Tedd for his dedication and tireless efforts in leading the Working Group over the previous several years.

Appendix I

Set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, taking into account the UNISPACE+50 process

1. The legal regime of outer space and global space governance

1.1 What is the main impact on the application and implementation of the five United Nations treaties on outer space of additional principles, resolutions and guidelines governing outer space activities?

1.2 Are such non-legally binding instruments sufficiently complementing the legally binding treaties for the application and implementation of rights and obligations under the legal regime of outer space? Is there a need for additional actions to be taken?

1.3 What are the perspectives for the further development of the five United Nations treaties on outer space?

2. United Nations treaties on outer space and provisions related to the Moon and other celestial bodies

2.1 Do the provisions of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty) constitute a sufficient legal framework for the use and exploration of the Moon and other celestial bodies or are there legal gaps in the treaties (the Outer Space Treaty and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement))?

2.2 What are the benefits of being a party to the Moon Agreement?

2.3 Which principles or provisions of the Moon Agreement should be clarified or amended in order to allow for wider adherence to it by States?

3. International responsibility and liability

3.1 Could the notion of “fault”, as featured in articles III and IV of the Convention on International Liability for Damage Caused by Space Objects (Liability Convention), be used for sanctioning non-compliance by a State with the resolutions related to space activities adopted by the General Assembly or its subsidiary bodies, such as Assembly resolution [47/68](#), on the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, and the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space? In other words, could non-compliance with resolutions adopted by the General Assembly or with instruments adopted by its subsidiary bodies related to space activities be considered to constitute “fault” within the meaning of articles III and IV of the Liability Convention?

3.2 Could the notion of “damage”, as featured in article I of the Liability Convention, be used to cover loss resulting from a manoeuvre performed by an operational space object in order to avoid collision with a space object or space debris not complying with the Space Debris Mitigation Guidelines of the Committee?

3.3 Are there specific aspects related to the implementation of international responsibility, as provided for in article VI of the Outer Space Treaty, in connection with General Assembly resolution [41/65](#), on the Principles Relating to Remote Sensing of the Earth from Outer Space?

3.4 Is there a need for traffic rules in outer space as a prerequisite to a fault-based liability regime?

4. Registration of space objects

4.1 Is there a legal basis to be found in the existing international legal framework applicable to space activities and space objects, in particular the provisions of the Outer Space Treaty and the Convention on Registration of Objects Launched into Outer Space (Registration Convention), which would allow the transfer of the registration of a space object from one State to another during its operation in orbit?

4.2 How could a transfer of activities or ownership involving a space object during its operation in orbit from a company of the State of registry to a company of a foreign State be handled in compliance with the existing international legal framework applicable to space activities and space objects?

4.3 What jurisdiction and control are exercised, as provided for in article VIII of the Outer Space Treaty, over a space object registered by an international intergovernmental organization in accordance with the provisions of the Registration Convention?

4.4 Does the concept of megaconstellations raise legal and/or practical questions, and is there a need to react with an adapted form of registration?

4.5 Is there a possibility, in compliance with the existing international legal framework, based on the existing registration practices, of introducing a registration “on behalf” of a State of a launch service customer, based on its prior consent? Would this be an alternative tool to react to megaconstellations and other challenges in registration?

5. International customary law in outer space

5. Are there any provisions in the five United Nations treaties on outer space that could be considered to form part of international customary law and, if yes, which ones? Could you explain the legal and/or factual elements on which your answer is based?

6. Proposal for other questions

6. Please suggest additional questions that could be inserted into the set of questions above to meet the objective of the UNISPACE+50 thematic priority on the legal regime of outer space and global space governance.

Appendix II

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?

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?

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

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

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?

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?

3. Responsibility and liability

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

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?

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?

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?

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?

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?