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English only

**Committee on the Peaceful
Uses of Outer Space**
Legal Subcommittee
Fifty-sixth session
Vienna, 27 March-7 April 2017
Item 5 of the provisional agenda*
**Status and application of the five
United Nations treaties on outer
space**

**Responses to the 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**

Note by the Secretariat

In accordance with the recommendations of the Working Group at the fifty-fifth session of the Subcommittee in 2016 ([A/AC.105/1113](#), Annex I, para. 17), member States of the Committee and international intergovernmental and non-governmental organizations having permanent observer status with the Committee were invited to provide comments and responses to the questionnaire, as contained in the Report of the Legal Subcommittee in its fifty-fourth session, held in Vienna from 27 March to 7 April 2017 ([A/AC.105/1113](#), Annex I, Appendix) and the Report of the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space ([A/AC.105/C.2/2016/TRE/L.1](#), Appendix).

The present conference room paper contains a replies by Austria and Germany to the set of questions.

* [A/AC.105/C.2/L.299](#).



Austria

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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

Austria has answered questions contained in the questionnaire provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space concerning the Moon Agreement, international responsibility and liability as well as the registration of space objects in 2013 (see document [A/AC.105/C.2/2013/CRP.18](#)).

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?

Additional principles, resolutions and guidelines can specify and concretize the provisions contained in the existing United Nations space treaties. While non-binding, these additional international instruments can thus give guidance to space actors with regard to the interpretation, application and implementation of the treaties.

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?

While binding instruments would give more certainty to space actors with regard to rights and obligations under the legal regime of outer space, the non-binding principles, resolutions and guidelines seem to be a practically feasible and implementable solution to complement the treaties and specify their meaning to facilitate their application.

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

At the moment, an amendment of the existing United Nations treaties on outer space seems difficult to achieve. In addition, new negotiations to amend or revise the treaties could bear the risk of weakening the rights and obligations contained therein. Therefore, the elaboration of non-binding instruments, which complement the treaties with regard to new technological developments and changed practical conditions, currently appears to be a more practicable option to further develop the application of the treaties. Non-binding instruments could in the longer term form the basis for the development of binding treaties as well as for the adoption of national space legislation. As practical guidance for space actors they could moreover foster a uniform practice which may evolve to become customary international law.

- 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 Austria (the Outer Space Treaty and the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement))?**

See document [A/AC.105/C.2/2013/CRP.18](#).

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

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

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

A system of space traffic management rules could facilitate the practical application of the fault-based liability regime by defining a standard of care and due diligence for activities in outer space against which the behaviour of space actors can be assessed to establish fault.

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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

See document [A/AC.105/C.2/2013/CRP.18](#).

- 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?**

Megaconstellations, which consist of several hundred or thousand satellites, would lead to a steep increase in the total number of objects in Earth orbit and could thus entail a heightened risk of in-orbit collisions. Furthermore, a simultaneous re-entry of a large number of satellites, which could be one of the consequences of the launch of megaconstellations, could also pose a challenge to space and air traffic as well as to the safety on the ground. The provision of additional information with regard to objects launched into outer space, including in particular the change of the functional status of an object as well as the expected date and place of re-entry, could become crucial for the safety and sustainability of space activities.

- 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?**

While a registration “on behalf” of a state of a launch service customer could have the practical advantage of making important information concerning a launched object available in a timely manner, it should not be used by states to evade their duty to register space objects launched by them as well as the legal consequences and responsibilities related to registration. According to Article VIII Outer Space Treaty, jurisdiction and control over a space Austria object is linked to registration. Moreover, registration is relevant to the question of liability for damage caused by space objects. A clear and transparent registration practice is crucial for the safety and sustainability of space activities. In case there are two or more launching states, Article II of the Registration Convention requires them to jointly determine which one of them shall register the space object. This provides states with a practicable mechanism to solve the question of registration before the launch of a space object. It is not clear whether

a registration “on behalf” of a state of a launch service customer would enhance the clarity, transparency and practical feasibility to the registration process.

5. International customary law in outer space

5.1 Are there any provisions of the five United Nations treaties on outer space that could be considered as forming 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?

In the view of the Austrian delegation, the general principles contained in the Outer Space Treaty can be regarded as customary international law, including the freedom of exploration and use of outer space (Art. I), the principle of non-appropriation (Art. II), the applicability of public international law to space activities (Art. III), the non-placement of nuclear weapons or weapons of mass destruction in Earth orbit (Art. IV), the international responsibility of states for national space activities and the duty to authorize and supervise non-governmental activities in outer space (Art. VI), the liability of the launching state for damage caused by its space object (Art. VII), the duty to register space objects and the jurisdiction and control over a space object by the state of registry (Art. VIII) as well as the principle of international cooperation (Art. IX, XI). These principles have already been reflected in the unanimously adopted GA Resolution [A/RES/1962](#) (XVIII). Such an unanimous approval is an indication of *opinio juris sive necessitatis* when accompanied by concomitant practice. A large majority of states, including all major space faring nations, have ratified the Outer Space Treaty and conduct their space activities in accordance with the above-mentioned principles. An opinion or practice objecting to or dissenting from these principles by states which are not party to the Outer Space Treaty does not seem to be identifiable.

Germany

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Germany once more appreciates the 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. In the years 2012, 2013, 2014 and 2015, Germany submitted detailed written answers to the set of questions to which it refers hereby.

As far as the new questions on “The legal regime of outer space and global space governance (1.)” are concerned, Germany wants to emphasize the reasonable complementary relation of the United Nations Treaties on Outer Space which are codified long-term principles and the more flexible non-legally binding instruments such as resolutions and guidelines which are more suited to react to current developments in outer space activities.

The 2007 Registration Practice Resolution represents an excellent example in this respect and was negotiated and adopted as an answer to the significant setback in the registration practice during the nineties of the last century. Nowadays, there are new challenges such as defining a space resources regime, mega-constellations and the 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. Non-legally binding instruments could be an adequate means of tackling these new challenges. As far as subjects such as space traffic management are concerned, the negotiation of a new binding United Nations treaty might be considered.

The universalization of the United Nations Treaties on Outer Space is of utmost importance to Germany. The Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space has to remain the prime intergovernmental platform for the development of space law. Regarding the organizational framework, the established and well-proven structure of UNOOSA should be strengthened as focal point.

The question No. 2 on the “United Nations treaties on outer space and provisions related to the Moon and other celestial bodies”, especially the Moon Agreement, is connected with the new single issue item on possible legal models for activities in exploration, exploitation and utilization of space resources. Firstly, it has to be distinguished between exploration, exploitation and utilization. In principle, Germany is not opposed to realistic and feasible activities exploiting the resources of outer space. Long-term sustainability of outer space activities, however, should be a prerequisite for activities in outer space. It is the task of States to formulate adequate international rules concerning space mining and commercialization of space activities, taking into account the investments made by States or non-governmental entities. This will lead to legal certainty for possible investors. A unilateral approach has to be avoided. The Moon Agreement that did not gain broad acceptance so far is an example for a regime concerning the exploitation of the resources of celestial bodies. The Moon Agreement does not formulate a detailed regime concerning the exploitation of celestial bodies but a procedure for international coordination. Such a procedure should be further elaborated in detail, irrespective of the Moon Agreement itself.

With respect to the question on “International responsibility and liability” (3), Germany would like to draw attention to its previous written answers to the set of questions and expresses once again its conviction that sophisticated space traffic management with definite rules of conduct are a prerequisite for a fault-based liability regime.

Regarding question 4 on “Registration of space objects”, Germany is of the opinion that registration practice has to react to current challenges. The adaption of registration practice to the new developments such as mega-constellations has to be implemented by consensus. There could be a discussion about the possibility of registering the constellation as a whole. For Germany, the clear assignment of jurisdiction and control and the registration by launching states have to remain the basic elements of registration practice.
