



# General Assembly

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**Committee on the Peaceful  
Uses of Outer Space**  
Legal Subcommittee  
Fifty-fifth session  
Vienna, 4-15 April 2016

## Draft report

### IV. Status and application of the five United Nations treaties on outer space

1. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 6, entitled “Status and application of the five United Nations treaties on outer space”, as a regular item on its agenda.
2. The representatives of Austria, Canada, Cuba, Germany, Greece, Italy, the Netherlands, the Republic of Korea, the Russian Federation and the United States made statements under agenda item 6. Statements were made by the representative of Namibia on behalf of the Group of 77 and China, and by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.
3. At its 917th meeting, on 4 April, the Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space under the chairmanship of Bernhard Schmidt-Tedd (Germany). The Subcommittee thanked the outgoing Chair, Jean-François Mayence (Belgium), for his diligent efforts, guidance and leadership in moving the work of the Working Group forward.
4. At its [...]th meeting, on [...] April, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex I to the present report.
5. The Subcommittee had before it the following:
  - (a) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2016 (A/AC.105/C.2/2016/CRP.3);



(b) Note by the Secretariat containing 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, received from Belgium (A/AC.105/C.2/2016/CRP.6);

(c) Summary report by the outgoing Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space on the responses from States members and permanent observers of the Committee to the set of questions provided by the Chair, contained in the report of the Legal Subcommittee on its fifty-fourth session, document A/AC.105/1090, annex I, appendix (A/AC.105/C.2/2016/CRP.7);

(d) Conference room paper on the Hague Space Resources Governance Working Group, received from the Netherlands (A/AC.105/C.2/2016/CRP.17).

6. The Subcommittee noted that, as at 1 January 2016, the status of the five United Nations treaties on outer space was as follows:

(a) 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), had 104 States parties and had been signed by 25 additional States;

(b) The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement) had 94 States parties and had been signed by 24 additional States; two international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Agreement;

(c) The Convention on International Liability for Damage Caused by Space Objects (Liability Convention) had 92 States parties and had been signed by 21 additional States; three international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Convention;

(d) The Convention on Registration of Objects Launched into Outer Space (Registration Convention) had 62 States parties and had been signed by 4 additional States; three international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Convention;

(e) The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement) had 16 States parties and had been signed by 4 additional States.

7. The Subcommittee noted with appreciation that the Secretariat continued to update, on an annual basis, the status of international agreements relating to activities in outer space; the current update had been made available to the Subcommittee in conference room paper A/AC.105/C.2/2016/CRP.3.

8. The Subcommittee was informed that the Democratic People's Republic of Korea had acceded to the Rescue Agreement and the Liability Convention on 24 February 2016, and that consequently those treaties at present had 95 and 93 States parties, respectively.

9. The Subcommittee noted the fortieth anniversary of the Registration Convention, a key instrument in the application and implementation of obligations under the United Nations treaties on outer space. That Convention, which was adopted on 12 November 1974, was opened for signature on 14 January 1975 and entered into force on 15 September 1976, provides the basis for the registration of objects launched into outer space.
10. Some delegations expressed the view that the United Nations treaties on outer space formed the primary legal and normative framework for supporting the increasing scale of space activities and for promoting international cooperation in the peaceful uses of outer space. Those delegations welcomed the growing adherence to the United Nations treaties on outer space and encouraged those States that had not yet become parties to the treaties to consider doing so.
11. Some delegations expressed the view that, in preparation for the celebration of the fiftieth anniversary of the Outer Space Treaty in 2017, it was desirable to review, update and strengthen as necessary the five outer space treaties, and to do so in such a way as to promote and develop the fundamental principles of the international legal regime, including the non-militarization and non-appropriation of outer space.
12. Some delegations expressed the view that it was necessary to review, update and strengthen the five United Nations treaties on outer space with the aim of invigorating the guiding principles that govern the space activities of States and filling any legal lacunae in the current international legal regime on outer space, reinforcing the guiding principles that underpin the space activities of States, strengthening international cooperation and facilitating the exchange of space technology and expertise for the benefit of all people.
13. The view was expressed that the rule of law in space was the cornerstone that could ensure the use of outer space for peaceful purposes, and that the five United Nations treaties on outer space had been instrumental in promoting space activities since their inception.
14. Some delegations expressed the view that the five outer space treaties must be adhered to and implemented in accordance with relevant Security Council resolutions and that States should work together to fully implement those Security Council resolutions.
15. The view was expressed that the use by the Democratic People's Republic of Korea of ballistic missile technology was a serious violation of Security Council resolutions and was in contravention of the spirit and purpose of the Outer Space Treaty. The delegation in question was of the view that the accession by the Democratic People's Republic of Korea to the Rescue Agreement and Liability Convention would neither contribute to international confidence nor promote international cooperation because the continued contrary acts of that country demonstrated an unwillingness to strictly adhere to all principles set out in those treaties.
16. Some delegations expressed the view that it was essential to ensure that all States adhere to and implement the five United Nations treaties on outer space, which had enabled States and their people to enjoy tremendous benefits from space activities. Those delegations were of the view that in cases where legal uncertainties

might be found in those treaties, non-legally binding instruments could be used by those conducting space activities.

17. Some delegations expressed the view that the five United Nations treaties on outer space strengthened the safety and security of space activities and provided the basis for regulating the participation and the responsibility of both Governments and non-governmental organizations in this area. Those delegations were of the view that it was a key function of the legal regime governing activities in outer space to ensure that space research and technological developments benefit the quality of life and well-being of human beings and promote the prosperity of current and future generations.

18. Some delegations expressed the view that it was necessary to reach an agreement on updating the existing legal framework on outer space in order to ensure peace and security and to meet the challenges associated with the rapid development of space activities, which could not have been foreseen at the time when the five United Nations treaties were negotiated.

19. The view was expressed that a universal comprehensive convention on outer space should be developed. Such a process would enable the integral consideration of all relevant aspects in a unified manner. The delegation expressing this view also noted that the proposal for the development of such a convention was gaining increasing support.

20. Some delegations expressed the view that the process leading up to the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space represented a good opportunity to identify thematic priorities to further the development of space law. The same delegations were of the view that such priorities of the Legal Subcommittee should be aligned with, and address the legal issues raised by, the thematic priorities agreed to in the Scientific and Technical Subcommittee.

21. Some delegations expressed concern that the national legislation of some countries unilaterally enacted to protect private property rights in resources extracted from the Moon or other celestial bodies may amount to either a claim of sovereignty or a national appropriation of those bodies and thus could constitute a violation of the Outer Space Treaty.

22. The view was expressed that the unilaterally enacted national legislation of a particular State that protected private property rights in resources extracted from the Moon or other celestial body represented a reversal of the negotiation position of that State at the time of the negotiation of the Moon Agreement in the Committee and its adoption by the General Assembly.

23. The view was expressed that national legislation on licensing and the protection of property rights played a crucial role in regulating the relationship between a State and its non-governmental entities in the exploration and use of outer space, and did not in and of itself constitute a violation of the Outer Space Treaty in the absence of an actual authorization granted to an entity to extract or utilize resources from the Moon or a celestial body. The delegation expressing that view also noted that any application under national legislation from a non-governmental entity for authorization to engage in a resource extraction activity on the Moon or

any other celestial body would necessarily be reviewed in accordance with the international treaty obligations of that State.

24. The view was expressed that States that had national legislation protecting private property rights in resources on the Moon or any other celestial body, whether that legislation regulated in situ use or extraction, were required to comply with their international obligations, such legislation notwithstanding. The delegation expressing that view also noted that greater understanding of the exact nature of those international obligations was needed in the light of circumstances such as the ageing of the five United Nations treaties on outer space and the recent and rapid rise in activities of non-governmental entities in outer space.

25. Some delegations expressed the view that greater understanding of international obligations of States arising under the five United Nations treaties on outer space was being achieved by various multi-stakeholder working groups and academic seminars, in particular with respect to the issue of national legislation on the protection of private property rights in resources extracted from the Moon or any other celestial body.

26. The view was expressed that a greater understanding among States of the principles set out in the Outer Space Treaty was needed and a multilateral approach to addressing issues of resource extraction from the Moon and other celestial bodies was necessary to ensure that States adhered to the principles of equality of access to space and that the benefits of the exploration and use of outer space was to be enjoyed by all humanity.

27. The view was expressed that national legislation on resource extraction and use did not preclude a multilateral approach or mechanism being developed in the future, but that at present such a multilateral approach would be premature because resource extraction and utilization was not yet technologically viable.

28. The view was expressed that giving reassurance to non-governmental entities having aspirations to engage in resource utilization and extraction from the Moon or other celestial bodies was important in the interests of legal certainty, but that a national initiative to that effect did not represent a final agreement for all States unless the whole community agreed. The delegation expressing that view also put forward that existing international mechanisms, such as those regulating international fisheries or seabed mining, might be instructive in this regard.

29. The view was expressed that the States parties to the Moon Agreement had been holding ongoing discussions over the preceding years on how to address resource extraction on the Moon and other celestial bodies in accordance with the provisions of that Agreement, but that there needed to be greater enthusiasm among these States to establish a formal working group.

30. Some delegations expressed the view that resolving the issue of resource extraction on the Moon and other celestial bodies based on the principle of "first come, first served" was not desirable or compatible with the principles of equality of access to space and allocating its resources to all humanity.

## **XI. General exchange of views on the legal aspects of space traffic management**

31. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 13, “General exchange of views on the legal aspects of space traffic management” as a single issue/item for discussion.

32. The representatives of Austria, Germany, Japan, the Netherlands and the United States made statements under agenda item 13. During the general exchange of views, statements relating to the item were made by representatives of other member States.

33. The Subcommittee heard a presentation entitled “Space traffic management study” by the observer for the International Academy of Astronautics (IAA).

34. The Subcommittee noted that consideration of the concept of space traffic management was of growing importance for all nations. The space environment was becoming increasingly congested and complex owing to the growing number of objects in outer space, the diversification of actors and the increase in space activities, all of which made it more difficult to ensure safe and sustainable space operations, and space traffic management required a multilateral approach.

35. The Subcommittee noted that a number of measures being undertaken at the national level were essential to improving the safety and sustainability of space flight, such as the sharing of information and services related to space situational awareness, which were critical to avoiding collisions in outer space. The Subcommittee agreed that a continued exchange of information on best practices and standards associated with the management of space operations was essential.

36. Some delegations expressed the view that space traffic management could be defined as a set of technical and regulatory provisions promoting the safety of access to, operations in and return from outer space, free from physical or radio-frequency interference.

37. The view was expressed that there was no clear definition of space traffic management apart from a definition contained in the *Cosmic Study on Space Traffic Management* by IAA, and that it should be examined whether the existing maritime and air traffic management regimes had elements that could be applied to space traffic management.

38. The view was expressed that the development of a space traffic management regime should be approached by looking at the following elements: the principles contained in the five United Nations treaties on outer space; the corresponding General Assembly resolutions; additional instruments for keeping outer space clean; space debris mitigation; real-time collision avoidance; notifications and confidence-building measures; orbit management and the passage through airspace; and traffic rules in a narrow sense.

39. The view was expressed that a comprehensive space traffic management regime could include improved sharing of information on space situational awareness, enhanced registration procedures, notification mechanisms for launches, in-orbit manoeuvres, re-entries and the end-of-lifetime of space objects, safety provisions, regulations with regard to space debris and environmental decisions.

40. The view was expressed that any future space traffic management regime should include, among other things, provisions on the safety of launches, the selection of orbits, the right of way for in-orbit phases and the prioritization of manoeuvres. Such a regime should also include specific rules for satellite constellations in geostationary and lower-Earth orbits, safety rules for re-entry, environmental provisions, and provisions on radiofrequency use and avoidance of interference. This required coordinated national licensing mechanisms, enforcement and arbitration mechanisms, operative oversight and clearly defined coordination and operational responsibilities among civilian and military authorities.

41. The view was expressed that some regulations relevant to space traffic management already existed in international space law, such as the principles set forth in the Outer Space Treaty. Those principles included the exploration and use of outer space for the benefit and in the interest of all countries; the freedom of exploration and use of outer space; the non-appropriation of outer space and the use of outer space for peaceful purposes. The delegation expressing this view also stated that these principles were further complemented by the Liability Convention and the Registration Convention, the international regulations regarding the allocation of radio frequencies and satellite orbits of ITU and a number of non-binding legal instruments such as the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, General Assembly resolution 59/115 on the application of the concept of the “launching State” and General Assembly resolution 62/101 on recommendations on the practice of States and international intergovernmental organizations in registering space objects.

42. The view was expressed that many areas indispensable for the effective management of space traffic were not covered by the existing international regulatory framework and that, to ensure sustainable space traffic management, a wider range of new activities and developments in the space arena would have to be taken into account. Those included the increased number of small satellites and nanosatellites launched and the initiatives on megaconstellations and the active removal of space debris.

43. The view was expressed that space traffic management should be examined in conjunction with the notion of fault and with article III of the Liability Convention, which provided that in the event of damage caused elsewhere than on the surface of the Earth to a space object of one launching State or to person or property on board such a space object by a space object of another launching State, the latter shall be liable only if the damage is due to its fault or the fault of persons for whom it was responsible.

44. The view was expressed that, during consideration of the item on space traffic management, the Subcommittee should initially attempt to gather more information about this topic to enable it to define, at a second stage, norms of conduct for a future space traffic management regime, which was intrinsically linked to ensuring the safe and responsible conduct of outer space activities.

45. The Subcommittee agreed on the importance of a continued discussion on space traffic management in the framework of the Committee on the Peaceful Uses of Outer Space and its Subcommittees.