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**Committee on the Peaceful  
Uses of Outer Space  
Legal Subcommittee  
Fifty-sixth session  
Vienna, 27 March-7 April 2017****Draft report****V. Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union**

1. Pursuant to General Assembly resolution 71/90, the Subcommittee considered, as a regular item on its agenda, agenda item 6, entitled:

“Matters relating to:

“(a) The definition and delimitation of outer space;

“(b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.”

2. The representatives of Australia, Canada, Chile, Costa Rica, Ecuador, France, Indonesia, Mexico, Pakistan, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 6. Statements were made by the representative of Costa Rica on behalf of the Group of 77 and China and by the representative of Argentina on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

3. At its 937th meeting, on 27 March 2017, the Legal Subcommittee reconvened its Working Group on the Definition and Delimitation of Outer Space under the chairmanship of José Monserrat Filho (Brazil). Pursuant to the agreement reached by the Subcommittee at its thirty-ninth session and endorsed by the Committee at its forty-third session, both held in 2000, and pursuant to General Assembly resolution 71/90, the Working Group was convened to consider only matters relating to the definition and delimitation of outer space.



4. The Working Group held [...] meetings. The Subcommittee, at its [...] meeting, on [...] April, endorsed the report of the Chair of the Working Group, contained in annex [...] to the present report.

5. For its consideration of the item, the Subcommittee had before it the following:

(a) Note by the Secretariat on national legislation and practice relating to the definition and delimitation of outer space ([A/AC.105/865/Add.18](#) and 19);

(b) Note by the Secretariat on questions on suborbital flights for scientific missions and/or for human transportation ([A/AC.105/1039/Add.7](#), 8 and 9);

(c) Note by the Secretariat on the definition and delimitation of outer space: views of States members and permanent observers of the Committee ([A/AC.105/1112/Add.2](#) and 3);

(d) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Bolivia (Plurinational State of)” ([A/AC.105/C.2/2017/CRP.9](#));

(e) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Greece” ([A/AC.105/C.2/2017/CRP.16](#));

(f) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation” ([A/AC.105/C.2/2017/CRP.23](#));

(g) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Pakistan” ([A/AC.105/C.2/2017/CRP.24](#));

(h) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of the International Institute of Space Law” ([A/AC.105/C.2/2017/CRP.29](#)).

6. The Subcommittee heard a presentation entitled “The definition and delimitation of outer space”, by the observer for IAASS.

7. The Subcommittee noted with satisfaction that the Office for Outer Space Affairs was preparing, jointly with the International Civil Aviation Organization (ICAO) secretariat, the third ICAO-Office for Outer Space Affairs Aerospace Symposium, to be held in Vienna from 29 to 31 August 2017, and that the Symposium would provide participants with perspectives on several areas of interest to the air and space communities. A dedicated web page on the Office’s website, with a link to the corresponding ICAO website, was available at [www.unoosa.org/oosa/events/data/2017/2017\\_third\\_icaounoosa\\_symposium.html](http://www.unoosa.org/oosa/events/data/2017/2017_third_icaounoosa_symposium.html).

8. Some delegations expressed the view that it was necessary to define and delimit outer space, given that there was a serious legal gap in that regard in both space law and air law. The delegations expressing that view considered that scientific and technological progress, the commercialization of outer space, the participation of the private sector, emerging legal questions and the increasing use of outer space in general had made it necessary for the Subcommittee to consider the question of the definition and delimitation of outer space. The delegations expressing that view were also of the view that the definition and delimitation of outer space would help to establish a single legal regime regulating the movement of an aerospace object and to bring about legal clarity in the implementation of space law and air law, as well as clarify the issues of the sovereignty and international responsibility of States and the boundary between airspace and outer space.

9. Some delegations expressed the view that State sovereignty over airspace was at odds with the prohibition on the appropriation of outer space or any part thereof by any means, including by claim of sovereignty. The delegations expressing that view were also of the view that the delimitation of outer space would make it

possible to ensure the practical application of the principle of freedom of exploration and use of outer space for peaceful purposes on the basis of non-discrimination and equality between States.

10. The view was expressed that the definition and delimitation of outer space should be based not on the criterion of altitude or the place of an object but rather on a functional approach, as space law would apply to any activity aimed at putting a space object into Earth orbit or beyond in outer space. The delegation expressing that view was also of the view that the functional approach was fully consistent with the Registration Convention, the Outer Space Treaty and the Liability Convention, as their provisions did not include the criterion of altitude. That delegation was also of the view that altitude should not be a determining criterion for determining whether an activity was an outer space activity; rather, that should be determined a priori according to the function of the space object and the purpose of the activity. Therefore, it would be appropriate that the legal framework applied to suborbital flights be determined not by the criterion of altitude but according to the characteristics of the activity and the legal issues arising from it.

11. The view was expressed that, as had been proposed by the former Union of Soviet Socialist Republics several years before, a delimitation of outer space could be established at an altitude of 100-110 km above mean sea level and that space objects might enjoy the right of innocent passage through foreign airspace during launching and return to the Earth.

12. The view was expressed that it was important to be aware that some experts promoted the establishment of a special area or stratum between outer space and air space, in the interest of creating a separate legal regime for suborbital flights, which would exclude the application of international space law to nuclear weapons and weapons of mass destruction, and that therefore such attempts and proposals should be vigorously opposed and rejected.

13. The view was expressed that it was important to be aware that the reference to the altitude of 100 km above mean sea level included in national legislation of Australia was not in any way intended to define or delimit outer space, but rather was intended to provide certainty for industry regarding the point at which participants in space activities would become subject to regulation under the relevant space-related norms of Australia.

14. The view was expressed that the delimitation of outer space was closely connected with the management of space activities and that it was important to concentrate on relevant matters that needed a practical solution, such as suborbital flights and launches from flying objects. The delegation expressing that view was also of the view that it was necessary to foresee hazardous circumstances arising from aerospace activities and legislate them, and to attempt to develop norms, bearing in mind various scenarios relating to the development of space technology and activities.

15. The view was expressed that the definition and delimitation of outer space to be made by States in the future should not prejudice national security and the sovereignty of States and that regulations regarding the definition and delimitation of space should also take into account the regulations regarding airspace and should be based on the protection of nations' sovereignty and the promotion of the exploration and use of space for peaceful purposes.

16. The view was expressed that the definition and delimitation of outer space were important for ensuring the safety of aerospace operations, while effectively addressing issues of liability.

17. Some delegations expressed the view that States should continue to operate in the current framework, which functioned well, until such time as there was a demonstrated need and a practical basis for developing a definition or delimitation of outer space. The delegations expressing that view were also of the view that the current framework had presented no practical difficulties and that therefore, at

present, any attempt to define and delimit outer space would be a theoretical exercise that could unintentionally complicate existing activities and might not be adaptable to continuing technological developments.

18. Some delegations expressed the view that there was no evidence to suggest that the lack of a definition or delimitation of outer space had hindered or restricted the growth of aviation or outer space exploration, and that no specific cases of a practical nature had been reported to the Subcommittee that could confirm that the lack of a definition of airspace or outer space had compromised aviation safety.

19. Some delegations expressed the view that progress in the definition and delimitation of outer space could be achieved through cooperation with ICAO.

20. Some delegations expressed the view that the Subcommittee should reinvigorate its efforts to reach consensus on the definition and delimitation of outer space, and called upon States to make every effort necessary to reach a positive and legally sound solution.

21. Some delegations expressed the view that the geostationary orbit — a limited natural resource clearly in danger of saturation — needed to be used rationally and should be made available to all States, irrespective of their current technical capacities. That would provide States with the possibility of gaining access to the geostationary orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries and the geographical position of certain countries, and taking into account the processes of ITU and relevant norms and decisions of the United Nations.

22. Some delegations expressed the view that the geostationary orbit was a limited natural resource with great potential for the implementation of a wide array of programmes for the benefit of all States and that it was at risk of becoming saturated, thereby threatening the sustainability of space activities in it; that its exploitation should be rationalized; and that it should be made available to all States, under equitable conditions, taking into account in particular the needs of developing countries. Those delegations were also of the view that it was important to use the geostationary orbit in compliance with international law, in accordance with the decisions of ITU and within the legal framework established in the relevant United Nations treaties, while giving consideration to the contributions of space activities to sustainable development and the achievement of the Millennium Development Goals.

23. Some delegations expressed the view that the geostationary orbit, as a limited natural resource clearly in danger of saturation, must be used rationally, efficiently, economically and equitably. That principle was deemed fundamental for safeguarding the interests of developing countries and countries in certain geographical positions, as set out in article 44, paragraph 196.2, of the ITU Constitution, as amended by the plenipotentiary conference held in 1998.

24. The view was expressed that the geostationary orbit was a limited natural resource with sui generis characteristics that risked saturation and that equitable access to it should therefore be guaranteed for all States, taking into account in particular the needs and interests of developing countries and the geographical position of certain countries.

25. Some delegations expressed the view that special attention should be given to equitable access for all States to orbit-spectrum resources in geostationary orbit while recognizing their potential with respect to social programmes that benefited the most underserved communities, making educational and medical projects possible, guaranteeing access to information and communications technology and improving links to necessary sources of information in order to strengthen social organization, as well as promoting knowledge and the exchange thereof.

26. The view was expressed that the current regime for the exploitation and utilization of the geostationary orbit provided opportunities mostly for countries

with greater financial and technical capabilities, and, in that connection, there was a need to take anticipatory measures to address the potential dominance of such countries in the utilization of space in order to address the needs of developing countries and of countries in particular geographical areas, such as those in equatorial regions.

27. Some delegations expressed the view that the geostationary orbit was part of outer space, that it was not subject to national appropriation by claim of sovereignty, by means of use, repeated use or occupation, or by any other means, and that its utilization was governed by the Outer Space Treaty and the ITU Constitution and Convention and the Radio Regulations. The delegations expressing that view were also of the view that the provisions of articles I and II of the Outer Space Treaty made it clear that a party to the Treaty could not appropriate any part of outer space, such as an orbital location in the geostationary orbit, either by claim of sovereignty or by means of use, including repeated use, or by any other means.

28. Some delegations expressed the view that the utilization by States of the geostationary orbit on a “first come, first served” basis was unacceptable and that the Subcommittee should therefore develop a legal regime guaranteeing equitable access to orbital positions for States in accordance with the principles of the peaceful use and non-appropriation of outer space.

29. Some delegations expressed the view that, in order to develop adequate mechanisms to ensure the sustainability of the geostationary orbit, it was necessary to keep that issue on the agenda of the Subcommittee and to explore it further, through the creation of appropriate working groups and legal and technical intergovernmental panels, as necessary. Those delegations were also of the view that working groups or intergovernmental panels with technical and legal expertise should be established to promote equal access to the geostationary orbit, and called for the greater participation of ITU in the work of the Subcommittee on those matters.

## **XII. General exchange of views on the application of international law to small satellite activities**

30. Pursuant to General Assembly resolution 71/90, the Subcommittee considered agenda item 13, entitled “General exchange of views on the application of international law to small-satellite activities”, as a single issue/item for discussion on its agenda.

31. The representatives of Austria, Brazil, Chile, Costa Rica, Germany, Japan, Mexico, Pakistan, South Africa and the United States made statements under agenda item 13. The representative of Costa Rica also made a statement on behalf of the Group of 77 and China. The observer for ITU also made a statement under the item. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

32. For its consideration of the item, the Subcommittee had before it the following:

(a) Conference room paper containing the draft questionnaire on the application of international law to small-satellite activities ([A/AC.105/C.2/2017/CRP.11](#));

(b) Note by the Secretariat containing updated draft questionnaire on the application of international law to small-satellite activities ([A/AC.105/C.2/2017/CRP.26](#)).

33. The Subcommittee agreed that the continuation of its work under this item would provide valuable opportunities for addressing a number of topical issues relating to international and national policy and regulation measures regarding the use of small satellites by various actors.

34. The Subcommittee reaffirmed that small satellites had often served as a nation's first step into outer space, had the potential to meet the increasing demands for space activities for the benefit of many regions and States, and were becoming important instruments enabling many developing States and their governmental and non-governmental organizations, including universities, educational and research institutes, and private industry with limited funds to join in the exploration and the peaceful uses of outer space and to become developers of space technology.

35. The Subcommittee recognized that technological progress had made the development, launch and operation of small satellites increasingly affordable and that those satellites could greatly assist in various areas, such as education, telecommunications and disaster mitigation, as well as in testing and demonstrating new technologies, thus playing an important role in fostering technological progress in the area of space activities.

36. The Subcommittee was informed about existing and emerging practices and regulatory frameworks applicable to the development and use of small satellites, as well as programmes of States and international organizations in this field.

37. The Subcommittee noted that a number of issues regarding the development and use of small satellites required their consideration, given their short development time, short mission time and unique orbital characteristics.

38. The view was expressed that the future international regime for small satellites should reflect the interests of all States.

39. Some delegations expressed the view that the United Nations treaties and principles on outer space, the ITU Constitution and Convention and the Radio Regulations and certain non-binding instruments such as the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space provided the legal framework for the use of small satellites.

40. Some delegations expressed the view that the wide range of applications of small satellites could provide effective tools for solving global challenges such as climate change, protection of the environment, food security and the mitigation of natural disasters, and that such tools would contribute to achieving the Goals of the 2030 Agenda for Sustainable Development.

41. Some delegations expressed the view that the growing number of small satellites could affect the long-term sustainability of activities in outer space, as small satellites that ceased to function in the future would add to the space debris population, and thus the planning of missions involving small satellites should include aspects such as control, registration, manoeuvrability, lifespan, debris generation, conjunction assessment, radio frequency interference and end-of-life strategies.

42. Some delegations expressed the view that both public and non-governmental operators of small satellites could greatly benefit from capacity-building in the area of the application of international law to this type of space activities.

43. Some delegations expressed the view that this item must remain closely connected with other items of the agenda of the Subcommittee, such as the general exchange of views on the legal aspects of space traffic management and the general exchange of information and views on the legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee.

44. The view was expressed that it was important to examine the applicability to small satellite activities of the existing international regime, including relevant ITU regulations, in order to ensure that the existing regime could provide safety, transparency and the sustainability of operations involving small satellites and of the outer space environment as a whole.

45. The view was expressed that since the ITU regulatory framework exempted some space objects, there was a need for a greater certainty with respect to small

satellites, and thus ITU should address this issue with the support of the Subcommittee.

46. The Subcommittee agreed that consideration of the draft questionnaire on the application of international law to small satellite activities ([A/AC.105/C.2/2017/CRP.11](#)) should be considered by the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.

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