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Vienna, 1–10 June 2022

Report of the Legal Subcommittee on its sixty-first session, held in Vienna from 28 March to 8 April 2022

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I. Introduction

A. Opening of the session

1. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its sixty-first session at the United Nations Office at Vienna from 28 March to 8 April 2022, in a hybrid format (in person and online). At its 1014th meeting, on 28 March, the Subcommittee elected Nomfuneko Majaja (South Africa) as its Chair for the period 2022–2023, pursuant to General Assembly resolution 76/76.

2. The Subcommittee held 20 meetings.

B. Adoption of the agenda

3. At its 1014th meeting, on 28 March, the Subcommittee adopted the following agenda:

1. Adoption of the agenda.
2. Election of the Chair.
3. Statement by the Chair.
4. General exchange of views.
5. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
6. Status and application of the five United Nations treaties on outer space.
7. 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.
8. National legislation relevant to the peaceful exploration and use of outer space.
9. Capacity-building in space law.
10. Future role and method of work of the Committee.
11. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee.
12. General exchange of information on non-legally binding United Nations instruments on outer space.
13. General exchange of views on the legal aspects of space traffic management.
14. General exchange of views on the application of international law to small-satellite activities.
15. General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources.
16. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its sixty-second session.
17. Report to the Committee on the Peaceful Uses of Outer Space.

C. Attendance

4. Representatives of the following 85 States members of the Committee attended the session: Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czechia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Ethiopia, Finland, France, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kenya, Kuwait, Lebanon, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands, New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay and Venezuela (Bolivarian Republic of).

5. At its 1014th meeting, on 28 March, the Subcommittee decided to admit the League of Arab States as an observer, at its request, to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.

6. Observers for the Food and Agriculture Organization of the United Nations, the International Telecommunication Union (ITU) and the Office for Disarmament Affairs of the Secretariat attended the session.

7. The session was attended by representatives of the European Union, in its capacity as permanent observer of the Committee and in accordance with General Assembly resolutions 65/276 and 73/91.

8. The session was attended by the following intergovernmental organizations having permanent observer status with the Committee: Asia-Pacific Space Cooperation Organization (APSCO), European Southern Observatory, European Space Agency (ESA), International Institute for the Unification of Private Law (UNIDROIT), International Organization of Space Communications (Intersputnik) and Square Kilometre Array Observatory.

9. The session was also attended by the following non-governmental organizations having permanent observer status with the Committee: CANEUS International, European Space Policy Institute, For All Moonkind, International Astronomical Union (IAU), International Association for the Advancement of Space Safety, International Institute of Space Law (IISL), International Law Association, Moon Village Association, National Space Society, Open Lunar Foundation, Scientific Committee on Solar-Terrestrial Physics, Secure World Foundation, Space Generation Advisory Council (SGAC), University Space Engineering Consortium-Global (UNISEC-Global) and World Space Week Association.

10. Also at its 1014th meeting, the Subcommittee decided to admit the Hague Institute for Global Justice and the International Peace Alliance (Space) as observers, at their request, to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.

11. A list of the representatives of States and of United Nations entities and other international organizations attending the session is contained in document A/AC.105/C.2/2022/INF/53.

12. The Subcommittee was informed by the Secretariat of the applications for membership in the Committee submitted by Guatemala (A/AC.105/C.2/2022/CRP.3) and Uzbekistan (A/AC.105/C.2/2022/CRP.4), which were to be considered by the Committee at its sixty-fifth session, from 1 to 10 June 2022.

13. The Subcommittee was also informed by the Secretariat of the applications for permanent observer status with the Committee submitted by the Access Space Alliance (A/AC.105/C.2/2022/CRP.5), the Hague Institute for Global Justice (A/AC.105/C.2/2022/CRP.6), the Association for the Development of the Atlantic International Research Centre (A/AC.105/C.2/2022/CRP.7) and the International Peace Alliance (Space) (A/AC.105/C.2/2022/CRP.14), to be considered by the Committee at its sixty-fifth session, from 1 to 10 June 2022.

D. Symposium

14. On 5 April, IISL and the European Centre for Space Law (ECSL) held a symposium on the theme "National laws and regulations to ensure space sustainability". The symposium was opened with welcoming remarks by the President of IISL, Kai-Uwe Schrogl, the Chair of ECSL, Sergio Marchisio, and the Chair of the Subcommittee, after which the following presentations were made to the Subcommittee: "Sustainability 101: North and South, East and West, new and old", by André Rypl; "A view from the operators on regulating space sustainability", by Aarti Holla-Maini; "National laws on space sustainability: fragmentation or uniformization?", by Marco Ferrazzani; "International cooperation for sharing national legal mechanisms and best practices", by Jenni Tapio; and "The role of young generations in the quest for space sustainability", by Ruvimbo Samanga. The presentations were made available on the website of the Office for Outer Space Affairs of the Secretariat.[1] Following the presentations, concluding remarks were made by the President of IISL, the Chair of ECSL and the Chair of the Subcommittee.

15. The Subcommittee noted with appreciation that the symposium had made a valuable contribution to its work.

E. Adoption of the report of the Legal Subcommittee

16. At its 1033rd meeting, on 8 April, the Subcommittee adopted the present report and concluded the work of its sixty-first session.

II. General exchange of views

17. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Egypt, Finland, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Israel, Italy, Japan, Kenya, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Pakistan, Paraguay, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Singapore, Slovenia, South Africa, Spain, Thailand, Turkey, Ukraine, United Kingdom, United States and Venezuela (Bolivarian Republic of). A statement was made by the representative of Morocco on behalf of the Group of 77 and China. A statement was made by the representative of Egypt on behalf of the African Group. The representative of the European Union, in its capacity as permanent observer, made a statement on behalf of the European Union and its member States. The observers for ESA, For All Moonkind, IAU, ITU, the Moon Village Association, the National Space Society, the Open Lunar Foundation, SGAC, the Square Kilometre Array Observatory and UNISEC-Global also made statements. Statements were also made by the Hague Institute for Global Justice and the International Peace Alliance (Space), which had been admitted to the session as observers.

[1] www.unoosa.org/oosa/en/ourwork/copuos/lsc/2022/symposium.html.

18. The Subcommittee heard the following presentations:

(a) "The UK Civil Aviation Authority, as the UK's independent spaceflight regulator, and the approach to regulation of UK activities", by the representative of the United Kingdom;

(b) "An international framework for establishing and sharing space solar power", by the observer for the National Space Society.

19. At the 1014th meeting, on 28 March, the Chair made a statement in which she referred to the programme of work and the organizational matters pertaining to the current session of the Subcommittee. The Chair noted that, given the increasing importance of space activities for all nations, there would be an ongoing expectation to coordinate, within the United Nations, activities of a legislative nature to strengthen international cooperation in space activities. She also noted the importance of international cooperation to promote the enhanced use of space technologies for socioeconomic development and to address global challenges. The increase in space activities demonstrated the need for the governance of outer space activities to benefit all countries, taking into particular account the needs of developing countries.

20. At the same meeting, the Subcommittee heard a statement by the Acting Director of the Office for Outer Space Affairs, in which he reviewed the role of the Office in discharging the responsibilities of the Secretary-General under the United Nations treaties on outer space, including the maintenance of the Register of Objects Launched into Outer Space. In particular, the Subcommittee was informed that, in 2021, the Office had registered, on behalf of the Secretary-General, 1,895 functional and 41 non-functional space objects and had received 172 notifications of re-entries and 25 notifications of a change in status of space objects. Since the beginning of 2022, the Office had received registration submissions for 325 functional and non-functional objects. In 2021, a significant increase had been seen in the number of space objects registered: nearly 1.5 times the number registered in 2020.

21. The Subcommittee welcomed the election of Nomfuneko Majaja (South Africa) as Chair for a two-year term starting in 2022. The Subcommittee expressed its appreciation to the outgoing Chair, Aoki Setsuko (Japan), for her leadership and contribution to furthering the achievements of the Subcommittee during her term of office.

22. The Subcommittee noted with satisfaction the adoption by the General Assembly of its resolution 76/3, entitled "The 'Space2030' Agenda: space as a driver of sustainable development", and recalled that the "Space2030" Agenda would contribute to enhancing and raising awareness of the benefits of space activities and tools for the implementation of the 2030 Agenda for Sustainable Development and the achievement of the Sustainable Development Goals.

23. The Subcommittee reaffirmed the importance of implementing, at the national level, the principles enshrined in the United Nations treaties governing space activities and called upon all States operating in outer space and States with operators conducting activities in outer space to develop and implement, to the extent that they had not already done so, national laws and regulations to govern those activities and operations.

24. Some delegations expressed the view that discussions held within the Legal Subcommittee should not lead to norms, guidelines, standards or other measures that would limit the access of nations with emerging space capabilities, in particular developing countries, to outer space. The delegations expressing that view were also of the view that the international legal framework should be developed in a manner that addressed the concerns of all States and that, with assistance from the Office for Outer Space Affairs, the Committee therefore needed to devote more effort to legal capacity-building and making the required expertise available to developing countries.

25. Some delegations reaffirmed their strict adherence to the principles governing the activities of States in the exploration and use of outer space, including those outlined in General Assembly resolutions 1884 (XVIII) and 1962 (XVIII), specifically: (a) universal and equal access to outer space for all countries without discrimination, regardless of their level of scientific, technical and economic development, as well as the equitable and rational use of outer space for the benefit and in the interests of all humankind; (b) the principle of non-appropriation of outer space, including the Moon and other celestial bodies, which could not be appropriated by any State, by claim of sovereignty, by means of use or occupation or by any other means; (c) the non-militarization of outer space, which was never to be used for the placement and/or deployment of weapons of any kind, and, as the province of humankind, its strict use for the improvement of living conditions and peace among peoples; and (d) international cooperation in the development of space activities, in particular those referred to in the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries.

26. Some delegations expressed the view that it was important to prevent an arms race and the placement of weapons of any kind in outer space, and called upon all States, in particular those with major space capabilities, to contribute actively and commit to preserving outer space as a peaceful environment. The delegations expressing that view were also of the view that the sustainability of outer space activities, in both the short and the long term, required that the international community ensure that no weapons were ever placed or used there.

27. Some delegations expressed the view that the number of activities in outer space by developing countries had fundamentally increased in recent decades. While emerging spacefaring nations had shown the vast potential of outer space, limitations and vulnerabilities had also been exhibited. It was therefore important to ensure that commercial and private space actors, in particular those from developing countries, were given the opportunity and conditions to participate on an equal footing and also reap the benefits of outer space activities, in line with 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.

28. Some delegations welcomed the growing support for the Artemis Accords on the Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes as an operational framework to ensure that the peaceful exploration of space remained transparent, safe and sustainable. Those delegations encouraged nations interested in those principles to sign the Accords.

29. Some delegations expressed the view that cooperation on the international lunar research station initiated by China and the Russian Federation was advancing and provided new opportunities to explore space, and encouraged all interested countries, international organizations and international partners to participate in relevant cooperation.

30. Some delegations expressed the view that space technology was changing rapidly, space activities were becoming increasingly diversified, commercial space flight was flourishing and the governance of outer space activities had therefore entered a new phase. In that regard, it was important to recognize the Committee as a unique platform for coordinating international cooperation in the peaceful uses of outer space and the Subcommittee as the main body at the international level dealing with legal issues related to outer space activities and, as such, a fundamental pillar of multilateralism.

31. Some delegations welcomed the programme presented by the Secretary-General in his report entitled “Our Common Agenda” (A/75/982) and also welcomed the fact that the peaceful, safe and sustainable use of outer space was prominently featured in that report. The delegations expressing that view also expressed the view that it was

necessary to support the inclusion of space among the eight areas to be followed up at the highest level in the framework of the preparation for the Summit of the Future.

32. Some delegations expressed their opposition to the establishment of a new regional centre for space science and technology education in the Eurasian region, affiliated to the United Nations, hosted by the Roscosmos Corporate Academy, as proposed by the Government of the Russian Federation. Those delegations were of the view that, despite the General Assembly, in its resolution 76/76, noting with satisfaction the progress in the establishment of the regional centre, in the light of recent events, they were not in a position to accept any affiliation of that regional centre to the United Nations.

33. The view was expressed that the Committee, at its sixty-fourth session, had noted that the evaluation mission on the proposed establishment of the regional centre resulted in a recommendation to accept the offer of the Russian Federation to establish the regional centre, that the Committee had welcomed the progress on the establishment of the regional centre, and therefore that no further action was required by the Committee.

34. Some delegations expressed the view that the legal aspects related to the long-term sustainability of outer space activities should be addressed by the Legal Subcommittee. It was therefore suggested that the Legal Subcommittee examine legal issues that might be referred to it by the Working Group on the Long-term Sustainability of Outer Space Activities established under the Scientific and Technical Subcommittee.

35. Some delegations reiterated the view that the Committee and its subsidiary bodies continued to constitute the only forum within the United Nations for comprehensive discussions of matters related to the peaceful uses of outer space, including the Moon and other celestial bodies, and that there should be more interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote advances in space law and keep space law aligned with major scientific and technical advances. In the view of those delegations, coordinating the work of the Subcommittees and using the synergies between them would also promote understanding and acceptance and would further the implementation of existing United Nations legal instruments.

III. Information on the activities of international intergovernmental and non-governmental organizations relating to space law

36. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 5, entitled “Information on the activities of international intergovernmental and non-governmental organizations relating to space law”, as a regular item on its agenda.

37. Statements were made under the item by the observers for APSCO, ESA, Intersputnik, SGAC, the Secure World Foundation and UNIDROIT. During the general exchange of views, statements relating to the item were made by representatives of member States and observers.

38. The Subcommittee had before it the following:

(a) Note by the Secretariat containing information on the activities of international intergovernmental and non-governmental organizations relating to space law received from Intersputnik and SGAC (A/AC.105/C.2/118);

(b) Conference room paper by SGAC entitled “Space Generation Advocacy and Policy Platform” (A/AC.105/C.2/2022/CRP.12);

(c) Conference room paper by the Moon Village Association entitled “Report of the Moon Village Association of the International Moon Day: support implementation status” (A/AC.105/C.2/2022/CRP.16).

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

39. Pursuant to General Assembly resolution 76/76, 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.

40. The representatives of Brazil, France, Germany, Indonesia, the Netherlands, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 6. A statement was made by the representative of Morocco on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

41. At its 1014th meeting, on 28 March, the Subcommittee 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.

42. At its 1028th meeting, on 6 April, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex I to the present report.

43. The Subcommittee had before it the following:

(a) 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);

(b) Background paper by the Secretariat entitled “Registration of large constellations and megaconstellations” (A/AC.105/C.2/L.322);

(c) Conference room paper containing responses to the questionnaire on the application of international law to small-satellite activities received from Chile, Japan and Morocco (A/AC.105/C.2/2022/CRP.8);

(d) Conference room paper containing updates to the schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2022/CRP.9);

(e) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2022 (A/AC.105/C.2/2022/CRP.10);

(f) Conference room paper containing an overview and final summary by the 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 of the Working Group, taking into account the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50) process, and contained in the report of the Legal Subcommittee on its fifty-sixth session (A/AC.105/1122, annex I, appendix I) and the report of the Legal Subcommittee on its sixtieth session (A/AC.105/1243, annex I, appendix I) (A/AC.105/C.2/2022/CRP.18);

(g) Conference room paper containing an overview and final summary by the 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 questionnaire on the application of international law to small-satellite activities provided by the Chair and contained in the report of the Legal Subcommittee on its fifty-sixth session (A/AC.105/1122, annex I, appendix II) and the report of the Legal Subcommittee on its sixtieth session (A/AC.105/1243, annex I, appendix II) (A/AC.105/C.2/2022/CRP.19);

(h) Discussion paper by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space on the topic of registration of large constellations and megaconstellations (A/AC.105/C.2/2022/CRP.20).

44. The Subcommittee noted that, as at 1 January 2022, the status of the five United Nations treaties on outer space was as follows:

(a) The Outer Space Treaty had 112 States parties and had been signed by 23 additional States;

(b) The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space had 99 States parties and had been signed by 23 additional States; three 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 had 98 States parties and had been signed by 19 additional States; four 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 had 72 States parties and had been signed by three additional States; four 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 had 18 States parties and had been signed by four additional States.

45. The Subcommittee commended the Secretariat for updating, on an annual basis, the status of international agreements relating to activities in outer space; the most recent update had been made available to the Subcommittee in conference room paper A/AC.105/C.2/2022/CRP.10.

46. Some delegations welcomed with appreciation the growing number of States parties to the five United Nations treaties on outer space and encouraged those States that had not yet become parties to the treaties to consider doing so.

47. Some delegations expressed the view that the five United Nations treaties on outer space constituted a reliable international legal foundation for space activities that had proved its effectiveness over more than six decades.

48. Some delegations expressed the view that, as the five United Nations treaties on outer space formed the cornerstone of international space law, the Subcommittee had a mandate to review their content in the light of scientific and technical developments and with a view to addressing the current challenges presented by the diversification of space actors and the increasing privatization and commercialization of space activities. The delegations expressing that view also expressed the view that, if the United Nations treaties on outer space were to remain relevant, the Subcommittee, as the main body for deliberating upon and negotiating provisions of international space law, must consider the need to incorporate modifications and updates to the treaties, or even to make other treaties, and to promote even broader adherence to the legal regime governing outer space activities.

49. Some delegations expressed the view that, as a consequence of technological progress in the space field and the expansion of activities carried out in outer space, it was necessary to have clear regulations on important aspects such as space debris, the collision of space objects, in particular those with nuclear power sources on board, with space debris, the equitable and rational use of the geostationary orbit and the use of outer space resources.

50. The view was expressed that article IX of the Outer Space Treaty obliged States to have due regard for the interests of other States. One element of the proper implementation of that obligation was the sharing of information. Article XI

contained the obligation to inform the international community, to the greatest extent feasible and practicable, of the nature, conduct and results of activities in outer space. The Outer Space Treaty did not prescribe the way in which that information must be provided. The Registration Convention did elaborate upon that, but was limited to the registration of objects launched into space; it did not address the registration of space activities in a broader sense. In view of the increase in activities in outer space, in particular on the Moon but also, for instance, suborbital flights, it was important to address the way in which information on such activities was shared.

51. The view was expressed that the universalization and improvement of the implementation of the rules set out in the United Nations treaties on outer space were essential first steps in ensuring compliance with the three main principles that must govern space activities: (a) the freedom of access to outer space for peaceful uses; (b) the preservation of the security and integrity of satellites in orbit; and (c) the defence and security interests of States in space.

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

52. Pursuant to General Assembly resolution 76/76, the Subcommittee considered, as a regular item on its agenda, agenda item 7, which read as follows:

> "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."

53. The representatives of Colombia, Ecuador, Indonesia, Iran (Islamic Republic of), Kenya, Mexico, the Russian Federation, Thailand, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 7. A statement was made by the representative of Morocco on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were made by representatives of other member States.

54. The Subcommittee had before it the following:

(a) Note by the Secretariat containing information received from States members of the Committee on national legislation and practice relating to the definition and delimitation of outer space (A/AC.105/865/Add.27);

(b) Note by the Secretariat containing replies from States Members of the United Nations and permanent observers of the Committee to questions on suborbital flights for scientific missions and/or for human transportation (A/AC.105/1039/Add.18);

(c) Note by the Secretariat containing views of States members and permanent observers of the Committee on the definition and delimitation of outer space (A/AC.105/1112/Add.11);

(d) Note by the Secretariat containing information received from States Members of the United Nations and permanent observers of the Committee relating to any practical case known that would warrant the definition and delimitation of outer space (A/AC.105/1226/Add.2);

(e) Conference room paper containing additional contributions received from States members of the Committee on the definition and delimitation of outer space (A/AC.105/C.2/2022/CRP.24).

55. The Subcommittee heard a presentation entitled “Proposal for a near-space legal regime to separate airspace and outer space”, by the observers for the International Association for the Advancement of Space Safety.

56. The view was expressed that the absence of a definition and delimitation of outer space might create legal uncertainty that could affect the application of outer space law and air law, and that the matters concerning State sovereignty over airspace and the scope of application of the legal regimes governing airspace and outer space needed to be clarified to reduce the possibility of disputes among States. The delegation expressing that view was also of the view that the Committee should facilitate deliberations among member States on the issue of the definition and delimitation of outer space as a legal basis for States in exercising sovereignty over airspace and in conducting activities in outer space.

57. The view was expressed that the definition and delimitation of outer space were important for addressing the increased number of activities in outer space, including commercial activities.

58. The view was expressed that the definition and delimitation of outer space were closely linked to matters of safety and security.

59. The view was expressed that considerations in determining the delimitation of outer space at between 100 and 110 km above sea level were based on comprehensive aspects, including scientific, technical and physical characteristics, namely, atmospheric layers, the altitude capacity of aircraft, the perigee of spacecraft and the Karman line.

60. The view was expressed that suborbital flights, drones and other results of technological development should be among the subjects addressed in discussions on the definition and delimitation of outer space.

61. The view was expressed that the need for legal regulation in relation to the delimitation of outer space and airspace, in respect of which fundamentally different international legal regimes operated, was increasing, including in the context of establishing the spatial limits of the sovereignty of States over their territory and ensuring their national security, as well as creating conditions for the long-term sustainability of outer space activities and security. The delegation expressing that view was also of the view that the delimitation of outer space should be considered solely as a definition of the limits of airspace and outer space in terms of the different legal regimes.

62. The view was expressed that, in regulating launches to orbit and suborbital launches, the purpose and function of the mission should be considered. Defining where space began was not necessary to be able to regulate those activities and was not required when considering future space traffic management approaches.

63. The view was expressed that there was no need to seek a legal definition or delimitation of outer space. The current framework had presented no practical difficulties. Given the situation, an attempt to define or delimit outer space would be an unnecessary theoretical exercise that could unintentionally complicate existing activities and might not allow for adaptation to continuing technological developments. The delegation expressing that view was also of the view that the current framework should continue to operate until there was a demonstrated need and a practical basis for developing a definition or delimitation of outer space.

64. The view was expressed that, given the increasing use and commercialization of outer space, the question of the definition and delimitation of outer space continued to increase in significance and was a vital legal matter with practical implications for airspace and suborbital flights, as well as for activities in outer space.

65. Some delegations expressed the view that there was a relationship between the establishment of a system of space traffic management and the definition and delimitation of outer space. There was also a relationship between suborbital flights for scientific missions and/or human transportation and the definition and delimitation of outer space. The delegation expressing that view was also of the view that, before proceeding to exploit outer space, those matters needed to be addressed in a manner that safeguarded the economic, security and other interests of all States, in conformance with the spirit of the Outer Space Treaty.

66. Some delegations expressed the view that the definition and delimitation of outer space was an important topic that should be kept on the agenda of the Legal Subcommittee and that more work should be done in that regard, as the legal regimes governing airspace and outer space were different.

67. Some delegations expressed the view that the geostationary orbit was a limited natural resource and was not to be subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means.

68. Some delegations expressed the view that the geostationary orbit should be used rationally and should be made available to all States, irrespective of their current technical capacities. That would give States 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.

69. Some delegations expressed the view that the utilization of the geostationary orbit should be governed by applicable international law and in accordance with the principle of non-appropriation of outer space, in order to ensure guaranteed and equitable access to orbital positions in the geostationary orbit according to the needs of all countries, in particular developing countries and countries in certain geographical positions.

70. The view was expressed that the Subcommittee should establish a working group under item 7 (b) of its agenda and extend the scope of the item to include the consideration of equitable access to other satellite orbits in addition to the geostationary orbit; that the related agenda item of the Scientific and Technical Subcommittee should be expanded to allow for consideration of technical aspects of the issue; that an intergovernmental panel of experts should be established; and that there should be cooperation with ITU on issues related to the equitable utilization of orbital resources, as proposed in conference room papers A/AC.105/C.2/2021/CRP.21 and A/AC.105/C.2/2021/CRP.26.

71. The view was expressed that the geostationary orbit should be viewed as a specific and unique area of outer space needing specific technical and legal governance and thus should be regulated by a sui generis regime. The delegation expressing that view was also of the view that, for such a sui generis regime, certain legal principles should be elaborated concerning the utilization of the geostationary orbit, such as equitable access, freedom of use, non-appropriation and exclusively peaceful uses, and that the development of those principles should lay the foundation for a comprehensive legal regime that would be implemented in the form of technical regulations within the framework of ITU. Further, the delegation expressing that view was also of the view that the Subcommittee should develop such legal principles and provide them as recommendations to ITU.

72. Some delegations expressed the view that it was the prerogative of ITU to ensure the rational, equitable, efficient and economical use of the radio frequency spectrum and satellite orbit resources.

73. Some delegations expressed the view that the Subcommittee should work towards the development of a regime to ensure the future equitable and sustainable use of the geostationary orbit for peaceful purposes and not leave the matter entirely to ITU.

74. The view was expressed that the Subcommittee should pay close attention to ongoing discussions of the Radiocommunication Sector of ITU relating to barriers in providing equitable access to the geostationary orbit, and should invite ITU to include an additional section in its annual space report to provide its own analysis on the degree of equitability in access to orbital resources and to present the progress made and results achieved by ITU in relation to the relevant issues.

75. The view was expressed that equitable access to the geostationary orbit was ensured through the free provision of Global Positioning System of the United States resources and of a variety of weather and warning data, including information about hurricanes, volcanic eruptions, effluent flooding, droughts and related environmental matters, and storm-tracking data from meteorological satellites; the provision of data and information from polar meteorological satellites and the Geostationary Operational Environmental Satellite; and the International Satellite System for Search and Rescue (COSPAS-SARSAT), which was a means for ships, aircraft and others in distress to signal their need for help and their location.

76. Some delegations expressed the view that it was necessary to keep the issue on the agenda of the Legal Subcommittee in order to develop adequate mechanisms to ensure the sustainability of and equitable access to the geostationary orbit.

77. The view was expressed that the topic under examination should remain under permanent discussion within the Committee and its two Subcommittees. The delegation expressing that view was also of the view that a dedicated sub-item on the analysis of the situation of the use of the geostationary orbit from the perspective of equitable access could be established, with a view to prioritizing the requirements of projects addressing the needs and facilitating the inclusion of countries, in particular developing countries.

VI. National legislation relevant to the peaceful exploration and use of outer space

78. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 8, entitled “National legislation relevant to the peaceful exploration and use of outer space”, as a regular item on its agenda.

79. The representatives of India, Indonesia, Iran (Islamic Republic of), Japan, Kenya, Mexico, the Russian Federation, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 8. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

80. The Subcommittee had before it a conference room paper entitled “Schematic overview of national regulatory frameworks for space activities” (A/AC.105/C.2/2022/CRP.9).

81. The Subcommittee heard a presentation entitled “Chilean space governance”, by the representative of Chile.

82. The Subcommittee reiterated that it was important to take into account the rising number of non-governmental entities engaging in outer space activities, and the growing commercialization of space activities. To that end, States needed to ensure, through their national legal frameworks, that those activities were in compliance with the United Nations treaties on outer space, in order to ensure the safety and security of such activities.

83. The Subcommittee noted various activities of member States to review, strengthen, develop or draft national space laws and policies, as well as to reform or establish the governance of national space activities. In that connection, the Subcommittee also noted that those activities were aimed at improving the management and regulation of space activities, reorganizing national space agencies, increasing the competitiveness of governmental and non-governmental organizations

in their space activities, increasing the involvement of academia in policy formulation, improving responses to challenges posed by the development of space activities, in particular those relating to the management of the space environment, ensuring robust and resilient communications infrastructure during emergencies, such as natural disasters, and improving the implementation of international obligations.

84. Some delegations expressed the view that the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II) provided valuable and important recommendations to all States and that voluntary implementation of the Guidelines through various national legal instruments and space policies was important.

85. Some delegations expressed the view that it was important to share and learn from the practices contained in national space legislation. In that connection, the Subcommittee took note of the working paper on the status of the national space legislation of countries of the Asia-Pacific Regional Space Agency Forum National Space Legislation Initiative (A/AC.105/C.2/L.318) and expressed appreciation for the efforts by the study group and its new study covering the implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee.

86. The view was expressed that the national legislation of some States raised concerns.

87. Some delegations expressed the view that, when developing national space legislation, it was important to take into consideration the recommendations on national legislation relevant to the peaceful exploration and use of outer space contained in General Assembly resolution 68/74.

88. Some delegations expressed the view that their national legislation relating to the exploration and utilization of space resources set rules to ensure that the enforcement thereof did not interfere with the implementation of treaties and other existing international agreements, and that those national regulatory frameworks would not interfere unduly with the interests of other States in exercising their freedom to explore and use outer space.

89. The view was expressed that unilateral interpretation of provisions of international space law and attempts to impose such interpretations at the international level were unacceptable.

90. The Subcommittee welcomed the update made by the Secretariat to the schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2022/CRP.9), which enabled States to gain an understanding of existing national regulatory frameworks, share experiences on national practices and exchange information on national legal frameworks.

91. The Subcommittee agreed that it was important to continue to regularly exchange information on developments in the area of national space-related regulatory frameworks. In that regard, the Subcommittee encouraged member States to continue to submit to the Secretariat texts of their national space laws and regulations and to provide updates and inputs for the schematic overview of national regulatory frameworks for space activities.

VII. Capacity-building in space law

92. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 9, entitled “Capacity-building in space law”, as a regular item on its agenda.

93. The representatives of Austria, China, France, Germany, Greece, Indonesia, Japan, Kenya, Luxembourg, Paraguay, the Philippines and South Africa made statements under agenda item 9. The representative of Morocco made a statement on behalf of the Group of 77 and China. A statement was also made under the item by

the observer for APSCO. During the general exchange of views, further statements relating to the item were made by representatives of other member States.

94. The Subcommittee had before it a conference room paper containing the directory of educational opportunities in space law (A/AC.105/C.2/2022/CRP.11).

95. The Subcommittee agreed that capacity-building, training and education in space law were of paramount importance to national, regional and international efforts to further develop the practical aspects of space science and technology, in particular in developing countries, and to increase knowledge of the legal framework within which space activities were carried out. That would encourage States to ratify the five United Nations treaties on outer space and support the implementation of those treaties and the establishment of national institutions and would make international space law more accessible and better known by all sectors of civil society. It was emphasized that the Subcommittee and the Office for Outer Space Affairs had an important role to play in that regard.

96. The Subcommittee noted with appreciation that a number of national, regional and international efforts to build capacity in space law were being undertaken by governmental and non-governmental entities. Those efforts included encouraging universities to offer modules and seminars on space law; providing fellowships for graduate and postgraduate education in space law; providing financial and technical support for legal research; preparing dedicated studies, papers, textbooks and publications on space law; organizing workshops, seminars and other specialized activities to promote greater understanding of space law; supporting space law moot court competitions; supporting the participation of women, students and young professionals in regional and international activities relating to space law; providing for training and other opportunities to build experience, in particular through internships with space agencies; and supporting entities dedicated to the study of and research relating to space law in order to assist in the development of national space policies and legislative frameworks.

97. The Subcommittee noted that some member States had provided financial assistance to enable students to attend the Manfred Lachs Space Law Moot Court Competition, held each year during the International Astronautical Congress.

98. The Subcommittee expressed its appreciation for the Space Law for New Space Actors project of the Office of Outer Space Affairs, which provided support in enhancing capacity for the development of national space law and policy. In that context, the Chilean technical advisory mission, held online from 19 to 21 October 2021, the Rwandan technical advisory mission, held online on 18 and 19 January 2022, and the Asian-Pacific basic technical advisory mission, held online from 24 to 26 January 2022, were welcomed.

99. Some delegations expressed the view that the Office for Outer Space Affairs should conduct targeted capacity-building, educational and training activities in space law and policy, building upon the programme of UN-SPIDER, with the objective of establishing a capacity-building platform, and underscored the importance of appropriate funding to enable the Office to provide valuable support to developing countries.

100. The Subcommittee noted that the APSCO/ESA/China Institute of Space Law seminar on regional cooperation schemes on space law and policy had been held from 6 to 8 September 2021 in Hainan Province, China.

101. The Subcommittee also noted that the Office for Outer Space Affairs had updated the directory of educational opportunities in space law (A/AC.105/C.2/2022/CRP.11), including the information on available fellowships and scholarships, and agreed that the Office should continue to update the directory. In that connection, the Subcommittee invited member States to encourage contributions at the national level for the future updating of the directory.

102. The Subcommittee recommended that States members and permanent observers of the Committee inform the Subcommittee, at its sixty-second session, of any action taken or planned at the national, regional or international levels to build capacity in space law.

VIII. Future role and method of work of the Committee

103. In accordance with General Assembly resolution 76/76, the Subcommittee considered agenda item 10, entitled “Future role and method of work of the Committee”.

104. The representatives of China, France, Indonesia, the Netherlands, the Russian Federation, the United Kingdom and the United States made statements under agenda item 10. During the general exchange of views, statements relating to the item were made by representatives of other member States.

105. The Subcommittee had before it a note by the Secretariat on the governance and method of work of the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies (A/AC.105/C.1/L.384).

106. The Subcommittee recalled the agreement by the Scientific and Technical Subcommittee that the multi-year workplan on the governance and method of work of the Committee and its subsidiary bodies, as contained in paragraph 2 of document A/AC.105/C.1/L.384, be extended until 2023, that the Secretariat should update document A/AC.105/C.1/L.384 for further consideration by the Scientific and Technical Subcommittee at its sixtieth session, in 2023, and that those updates should include the considerations made by the Committee and its Subcommittees prior to and during 2022.

107. The Subcommittee noted that the Committee and its Subcommittees served as a unique platform for international cooperation in the peaceful uses of outer space.

108. The view was expressed that the Committee should strengthen its interaction with relevant international organizations through appropriate means to increase the awareness of Member States of the relevant processes and to prevent the fragmentation of global governance in outer space.

109. Some delegations expressed the view that the discussion of important topics on the space agenda should be carried out in the framework of the Committee and that transferring such discussions to parallel platforms would have a negative effect on the role of the Committee.

110. Some delegations expressed the view that the Committee should focus exclusively on promoting the peaceful uses of outer space, while matters of preventing escalation and conflict that could arise from the use of weapons against space systems, or the use of outer space for military and other national security activities, should be dealt with in the United Nations disarmament platforms.

111. The view was expressed that the work of United Nations entities with regard to space-related issues should be closely coordinated with the work of the Committee.

112. Some delegations expressed the view that the Committee should be more proactive in responding to emerging challenges, including issues such as satellite megaconstellations in low Earth orbits, the impact of private business activities on outer space governance and the sustainable development of space technology services.

113. The view was expressed that the Committee should focus its work on the development of complex solutions for ensuring the long-term sustainability of outer space activities, including in the areas of space debris mitigation and remediation, space traffic management, small satellites, and the prevention and resolution of conflicts arising from outer space activities.

114. Some delegations expressed the view that new items should be added to the agenda of the Committee and its Subcommittees only when other items were removed.

115. The view was expressed that it was important to further strengthen the intergovernmental status of the Committee and that dialogue with commercial operators and scientific and academic circles should be conducted in such a way as to avoid any form of interference in the work of the Committee.

116. The view was expressed that the Committee should consider new and innovative ways to best engage relevant stakeholders, such as those from industry, academia and civil society, in its activities.

117. The view was expressed that the principle of consensus applied by the Committee allowed it to make universally applicable decisions aimed at addressing a broad range of emerging issues in the area of international cooperation in the peaceful uses of outer space.

118. The view was expressed that increased coordination, interaction and synergies between the Subcommittees on cross-cutting issues would increase the efficiency of their work.

119. The view was expressed that the Subcommittee should ensure that its reports were action-oriented, so that States could follow the outcomes of the Subcommittee meetings and incorporate them into their space activities.

120. The view was expressed that the hybrid format of the current session, which had included live webcasting of plenary sessions with interpretation into the six official languages of the United Nations, had allowed greater participation by countries in the work of the Subcommittees, and that such a hybrid format could be maintained for future sessions of the Committee and its Subcommittees.

121. The view was expressed that a procedure to follow in cases of force majeure should be established to ensure the continuity of the work of the Committee in crisis situations, such as the coronavirus disease (COVID-19) pandemic.

IX. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee

122. Pursuant to General Assembly resolution 76/76, the Legal Subcommittee considered agenda item 11, entitled “General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee”, as a single issue/item for discussion.

123. The representatives of Canada, Chile, Colombia, France, Germany, India, Indonesia, Iran (Islamic Republic of), Japan, Luxembourg, Malaysia, Mexico, the Netherlands, the Russian Federation, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 11. A statement was made by the representative of Morocco on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

124. The Subcommittee had before it a conference room paper entitled “Compendium of space debris mitigation standards adopted by States and international organizations” (A/AC.105/C.2/2022/CRP.17).

125. The Subcommittee expressed concern at the increasing amount of space debris and noted that the endorsement by the General Assembly, in its resolution 62/217, of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of

Outer Space had been an important step in providing all spacefaring nations with guidance on ways to mitigate the problem.

126. The Subcommittee noted with satisfaction that some States were implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee, the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II), the Space Debris Mitigation Guidelines of the Inter-Agency Space Debris Coordination Committee, International Organization for Standardization standard ISO 24113:2011 (Space systems: space debris mitigation requirements) and/or ITU recommendation ITU-R S.1003 (Environmental protection of the geostationary-satellite orbit).

127. The Subcommittee also noted with satisfaction that some States had taken measures to incorporate internationally recognized guidelines and standards related to space debris into the relevant provisions of their national legislation. The Subcommittee noted that some States had strengthened their national mechanisms governing space debris mitigation by nominating governmental supervisory authorities, involving academia and industry and developing new national legislation.

128. The Subcommittee noted that IADC, whose initial work had served as the basis for the Space Debris Mitigation Guidelines of the Committee, had updated its own Space Debris Mitigation Guidelines in 2021 to reflect the evolving understanding of the space debris situation.

129. The Subcommittee noted with satisfaction that the compendium of space debris mitigation standards adopted by States and international organizations, developed at the initiative of Canada, Czechia and Germany, enabled all interested stakeholders to benefit from access to a comprehensive and structured set of current instruments and measures on space debris mitigation. The Subcommittee expressed its appreciation to the Secretariat for updating and maintaining the compendium and continuing to make the latest version available on a dedicated web page.

130. Some delegations expressed the view that national policy and regulatory frameworks for space activities offered a key solution for limiting the generation of space debris.

131. Some delegations expressed the view that international standard-setting efforts must be pursued and deepened on an ongoing basis and that international efforts must be complemented by national efforts.

132. The view was expressed that, if non-legally binding guidelines and best practices were not sufficient to ensure effective end-of-mission disposal and safe re-entry, further legally binding instruments might have to be developed.

133. The view was expressed that the Legal Subcommittee should increase its interaction with the Scientific and Technical Subcommittee, with the aim of promoting the development of legally binding international standards addressing issues relating to space debris.

134. Some delegations expressed the view that, since approaches to mitigating the problem of space debris were linked to evolving technologies, and given the cost-benefit trade-offs of using them, it was not necessary to develop legally binding space debris mitigation standards at present.

135. Some delegations expressed the view that the Subcommittee should discuss the legal issues relating to space debris and space debris removal, including the legal definition of space debris, the legal status of space debris fragments, the role of the State of registry, jurisdiction and control over the space objects to be declared as space debris, and responsibility and liability for active removal activities, including liability for damage caused as a result of debris remediation operations.

136. The view was expressed that the Subcommittee should determine the legal status of space debris fragments not registered in any national register or in the Register of Objects Launched into Outer Space, harmonize international and national law on the

regulation of property rights in relation to space objects, not only spacecraft, and coordinate international procedures for identifying space debris objects and their trajectory characteristics and for assessing the safety of removing such objects from orbit.

137. Some delegations expressed the view that it was important for all States to register all objects launched into outer space and that no object should be removed without the prior consent or authorization of the State of registry.

138. Some delegations expressed the view that good registration practice was the foundation for enabling active debris removal and in-orbit servicing missions, and that transparency and international collaboration were essential to the success of such missions.

139. Some delegations expressed the view that, in decongesting outer space through space debris remediation, States should act in line with the principle of common but differentiated responsibilities, which was based on the recognition that the actors largely responsible for creating space debris should be the most involved in space debris removal activities and should make their scientific and legal expertise available to countries with lower levels of space development.

140. The view was expressed that an international fund should be established to support coordinated space debris removal efforts by providing means to deal with the technological and financial aspects of such operations, and that the participation of States in the common fund should depend on the role that those States had had in the generation of space debris.

141. The view was expressed that there was a need for an international mechanism for managing space debris and minimizing its harmful effects on the safety of the space assets of all States.

142. The view was expressed that it was important to adopt safeguards to control and prevent the generation of space debris, in order to minimize the risk posed to humans on Earth by the re-entry of space debris.

143. The view was expressed that the issue of space debris must be addressed in a way that would not negatively affect the space capabilities of developing countries or impose unnecessary burdens on the space programmes of those countries.

144. Some delegations expressed the view that it was important to strengthen the capacity of developing countries for the voluntary implementation of space debris mitigation measures.

145. Some delegations expressed the view that developing countries and non-spacefaring States should be provided with access to relevant technical and legal knowledge for the implementation of space debris mitigation guidelines and standards, including on collision avoidance.

146. Some delegations expressed the view that all nations should refrain from the intentional destruction of space objects, as such destruction could significantly increase the risks to human space flight and other space activities. Those delegations also expressed the view that the Space Debris Mitigation Guidelines of the Committee must be applied to the full range of governmental and private sector space activities to foster a safe, sustainable space environment.

147. The view was expressed that the Subcommittee should discuss procedures for the active removal and destruction of space objects, procedures in relation to unregistered space objects, and the safe conduct of space operations in relation to avoiding the collision of space objects.

148. The view was expressed that it was important that States implemented not only post-mission disposal measures, but also measures on the active removal of space debris and on space traffic management, and that steps should be taken to protect outer space from pollution resulting not only from space debris, but also from light and radio emissions.

149. The Subcommittee agreed that States members of the Committee and international intergovernmental organizations having permanent observer status with the Committee should be invited to contribute further to the compendium of space debris mitigation standards adopted by States and international organizations by providing or updating the information on any legislation or standards adopted with regard to space debris mitigation, using the template provided for that purpose. The Subcommittee also agreed that all other States Members of the United Nations should be invited to contribute to the compendium and encouraged States with such regulations or standards to provide information on them.

X. General exchange of information on non-legally binding United Nations instruments on outer space

150. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 12, entitled “General exchange of information on non-legally binding United Nations instruments on outer space”, as a single issue/item for discussion.

151. The representatives of Chile, Indonesia, Japan, Mexico, the Russian Federation, the United Kingdom and Venezuela (Bolivarian Republic of) made statements under agenda item 12. A statement was made by the representative of Morocco on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were made by representatives of other member States.

152. The Subcommittee had before it a conference room paper entitled “Compendium on mechanisms adopted in relation to non-legally binding United Nations instruments on outer space: submissions by Chile, Japan, Jordan, Pakistan and the Philippines” (A/AC.105/C.2/2022/CRP.22).

153. The Subcommittee took note of the compendium on mechanisms adopted by States and international organizations in relation to non-legally binding United Nations instruments on outer space, which was available on a dedicated page on the website of the Office for Outer Space Affairs, and encouraged States members of the Committee and international intergovernmental organizations having permanent observer status with the Committee to continue to share information on their practices related to non-legally binding United Nations instruments on outer space.

154. The Subcommittee noted that non-legally binding United Nations instruments on outer space complemented and supported the existing United Nations treaties on outer space, and were important mechanisms for further enhancing the safety, security and sustainability of outer space activities.

155. The Subcommittee noted that some States were implementing non-legally binding United Nations instruments on outer space through their national legislation and that further capacity-building was important in that regard.

156. The Subcommittee noted the project of the Office for Outer Space Affairs entitled “Awareness-raising and capacity-building related to the implementation of the LTS Guidelines”, funded by the United Kingdom, as part of which interviews with representatives of member States and international intergovernmental organizations had been held in recent months.

157. The view was expressed that, owing to the development of space activities, it was important to continue to develop non-legally binding United Nations instruments on outer space, while also avoiding any possible contradictions between existing and newly adopted ones. The delegation expressing that view also noted that, while the Space Debris Mitigation Guidelines of the Committee were of crucial significance and still played an important role, several provisions contained in the recently adopted Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II), in particular those pertaining to the issue of preventing accidental collisions in outer space, were more up to date.

158. Some delegations expressed the view that the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee constituted an important non-legally binding United Nations instrument that served as a valuable source of guidance on how to conduct space activities, and encouraged States to implement them.

159. The view was expressed that, while non-legally binding United Nations instruments could not replace legally binding norms, they were still an important means of establishing codes of conduct to ensure the safe and sustainable use of outer space. The delegation expressing that view also called upon States to support and continue to work with the open-ended working group established by the General Assembly in its resolution 76/231 to develop norms, rules and principles of responsible behaviours in outer space that were non-binding but could provide a basis for future legally binding instruments to prevent an arms race in outer space.

160. Some delegations, in connection with the agenda item, recalled General Assembly resolutions 1721 A and B (XVI), on international cooperation in the peaceful uses of outer space, and Assembly resolution 1962 (XVIII), on the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, and encouraged States launching objects into orbit to furnish information on those objects to the Secretary-General and to consider establishing a national registry for the purpose of exchanging information on space objects, as appropriate.

161. Some delegations recalled the Principles Relating to Remote Sensing of the Earth from Outer Space, in connection with the agenda item, and highlighted the importance of promoting the availability of remote sensing data on a non-discriminatory basis, as such data were essential for sustainable development and promoted transparency and confidence among States.

162. Some delegations recalled the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries, in connection with the agenda item, and expressed the view that it was an important instrument for the further promotion of international cooperation with a view to maximizing the benefits of space applications for all States, highlighting that, in the Declaration, all spacefaring nations were called upon to contribute to promoting and fostering international cooperation on an equitable basis.

163. The view was expressed that, in order to strengthen international cooperation in the peaceful uses of outer space and make space technology available to all, attention should be paid to addressing the current gaps in the international legal regime on outer space and to the progressive development of international law.

164. The view was expressed that instruments such as memorandums of understanding and bilateral agreements among States in the area of space activities, based on good faith, also constituted non-binding instruments that could often provide timely, effective and efficient solutions for the benefit of all parties to such agreements.

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

165. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 13, entitled “General exchange of views on the legal aspects of space traffic management”, as a single issue/item for discussion.

166. The representatives of Austria, China, France, Germany, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Mexico, the Netherlands, the Russian Federation and the United States made statements under agenda item 13. A statement was also made by the observer for the Square Kilometre Array Observatory. During

the general exchange of views, statements relating to the item were made by representatives of other member States.

167. Some delegations expressed the view that, as the volume and diversity of activities in outer space continued to increase, the norms, rules and principles that guided outer space activities should also evolve to ensure the safety, security and sustainability of outer space activities, and space traffic management should be considered in that context.

168. The Subcommittee was informed of a number of measures undertaken or envisaged at the national, regional and international levels to improve the safety and sustainability of space flight. The measures included bolstering space situational awareness and sharing space traffic coordination information; developing and implementing open and transparent standards, policies and practices as the foundation for space traffic coordination among nations; registering space objects; providing pre-launch notifications; providing spacecraft collision avoidance, re-entry and fragmentation services through the development and operation of space surveillance and tracking capabilities; producing guidelines for on-orbit servicing and the issuance of conjunction warnings; reporting annual launch plans; developing space debris removal techniques; and undertaking international coordination efforts through ITU to manage radio frequencies and geostationary orbits. The Subcommittee noted the development of a European Union approach to space traffic management.

169. Some delegations expressed the view that, owing to the cross-cutting nature of space traffic management, which involved regulatory, legal and technical aspects, consideration of the item could be undertaken by both the Scientific and Technical Subcommittee and the Legal Subcommittee to enable a more comprehensive approach to addressing the topic.

170. The view was expressed that space traffic management as a coherent set of technical and regulatory provisions was a precondition for safe access to outer space, the safety of operations in outer space and the safe return to Earth from outer space, and that, for effective space traffic management, an international agreement was required, based on international law, multilateral consensus and international cooperation, that would lead to the development of technical and operational standards and norms of responsible behaviour in outer space, with the long-term objective of establishing a dedicated international and binding space traffic management regime. The delegation expressing that view welcomed the intention expressed in the Secretary General's report entitled "Our Common Agenda" (A/75/982) to seek high-level political agreement on a global regime to coordinate space traffic.

171. The view was expressed that increased congestion in the outer space environment, in particular owing to megaconstellations and the continued diversification of space actors, and the lack of information and interpretation of space situational awareness had resulted in an increased risk of collisions and interference; therefore, consideration of the issue of space traffic management was of the utmost importance. The delegation expressing that view recalled the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space as an important basis for further discussions on a space traffic management framework.

172. The view was expressed that discussions of space traffic management helped to strengthen international cooperation, reduce threats such as those posed by space debris and close encounters of spacecraft, tackle challenges brought about by new space activities and ensure the safety and sustainability of space activities. The delegation expressing that view was also of the view that space traffic management was closely linked to existing space law. The delegation was also of the view that the Outer Space Treaty stipulated that the exploration and use of outer space should be guided by principles such as cooperation and mutual assistance, paying due regard to the interests of all the States parties to the Treaty and freedom of access to space on

the basis of equality. All States should respect the international order in space, on the basis of international law, and ensure the safety of spacecraft operations.

173. The view was expressed that there was a need to strengthen international cooperation pertaining to the sharing of information on space situational awareness as a tool for preserving the safety of space operations. The delegation expressing that view was also of the view that the Space Debris Mitigation Guidelines of the Committee and the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II) served as important tools for the safety of space operations, but that they must be accompanied by an emphasis on efforts to share information and coordinate among space actors internationally to increase space situational awareness on a global scale. The delegation expressing that view was also of the view that clear lines of communication were integral to the safety of human space flight and the responsible use of outer space.

174. The view was expressed that securing the stable, safe and sustainable use of the outer space environment was of the utmost importance and that all States should be strongly encouraged to prevent the creation and diffusion of long-lived orbital debris in a manner that was consistent with international norms, and to establish appropriate space traffic management regulations for better coordination.

175. The view was expressed that space traffic management required access to information and capabilities; States and international intergovernmental organizations should therefore engage in a dedicated consultative process, preferably under the auspices of the Committee. The delegation expressing that view was also of the view that space traffic management was dependent upon several conditions, such as the establishment of an international framework under the auspices of the Office for Outer Space Affairs to manage and monitor the process of sharing data on the position of space objects, ensure transparency on ambiguities in some norms or rules and provide for the transfer of space traffic management technology to developing spacefaring countries.

176. The view was expressed that, prior to discussing any recommendations, rules or, in particular, legally binding norms on space traffic management, it was necessary to ensure the existence of timely and trustworthy information about the outer space environment, agreed rules for the use and interpretation of such information to assess its applicability and a coordinated international mechanism for the exchange of such information. The delegation expressing that view recalled the proposal to create a United Nations information platform (see A/AC.105/C.1/L.361, annex) to serve as the international system of information exchange for integrating the efforts of States, international intergovernmental organizations, spacecraft operators and specialized national and international non-governmental organizations in collecting, systematizing and providing for the general use and analysis of information on objects and events in outer space.

177. The view was expressed that, in developing an international space traffic management framework, priority should be given to building technical capacities to improve knowledge of the space environment and ensure its continuous monitoring and also to developing regulatory provisions, that is, a set of good practices, guidelines and standards, to ensure the safety of space operations, in particular to avoid collisions in orbit. The delegation expressing that view was also of the view that, in terms of the rules applicable to space traffic management, at the current stage, a pragmatic approach should be pursued, based on the timely adoption of guidelines, standards and transparency- and confidence-building measures, and that the development of such guidelines, standards and measures must be done gradually and incrementally at the international level and exclude, for the time being, the development of any binding rules.

178. The view was expressed that space traffic management, which entailed developing and implementing a set of technical and regulatory provisions to promote safe access to outer space, the safety of operations in outer space and the safe return from outer space, free from physical or radio frequency interference, was of the

utmost importance for maintaining outer space as a safe, stable and sustainable environment.

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

179. Pursuant to General Assembly resolution 76/76, the Legal Subcommittee considered agenda item 14, 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.

180. The representatives of China, Colombia, France, India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Mexico, the Russian Federation and Thailand made statements under agenda item 14. The representative of Morocco made a statement on behalf of the Group of 77 and China. A statement was also made under the item by the observer for the Square Kilometre Array Observatory. During the general exchange of views, statements relating to the item were made by representatives of other member States.

181. The Subcommittee took note of the questionnaire on the application of international law to small-satellite activities (A/AC.105/1243, annex I, appendix II), considered by the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space. The Subcommittee noted that both the questionnaire and the replies received (see A/AC.105/C.2/2022/CRP.8) represented valuable contributions to discussions on legal issues with regard to small-satellite activities at the international level.

182. The Subcommittee welcomed the background paper prepared by the Secretariat entitled “Registration of large constellations and megaconstellations” (A/AC.105/C.2/L.322).

183. The Subcommittee recalled with appreciation the joint ITU/Office for Outer Space Affairs document providing guidance on space object registration and frequency management for small and very small satellites.

184. The Subcommittee reaffirmed that small-satellite activities had provided opportunities and benefits for accessing space, in particular for developing States and related governmental and non-governmental organizations, including universities and educational and research institutes, as well as for private industries with limited resources.

185. The Subcommittee noted that technological progress had made the development, launch and operation of small satellites increasingly affordable and that such satellites could provide substantial assistance in areas such as Earth observation, disaster mitigation, education and telecommunications.

186. The Subcommittee also noted that, in order to guarantee the safety and sustainability of outer space activities, the activities of small satellites, regardless of their size, should be carried out within existing international frameworks, including the United Nations treaties and principles on outer space, the ITU Constitution and Convention and the ITU Radio Regulations, and non-binding instruments such as the Space Debris Mitigation Guidelines of the Committee and the Guidelines for the Long-term Sustainability of Outer Space Affairs of the Committee (A/74/20, annex II).

187. The Subcommittee was informed about programmes of States and international organizations focused on the development and operation of small satellites, and about regulatory frameworks applicable to the development and use of small satellites.

188. The Subcommittee noted with appreciation the programmes of the Office for Outer Space Affairs related to small satellites, including the United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space

Station Japanese Experiment Module (Kibo), known as “KiboCUBE”, and the “KiboCUBE Academy”, through which KiboCUBE applicants were supported in developing project plans.

189. The view was expressed that, in connection with small-satellite activities, it was necessary to define a clear legal framework to protect the rights of all States to free and equitable access to outer space, including for peaceful and unrestricted activities in low Earth orbit.

190. The view was expressed that the existing legal regime governing outer space was unsuitable for current developments in commercial space activity, in particular the use of small-satellite constellations in low Earth orbit to provide global Internet access.

191. Some delegations expressed the view that an ad hoc legal regime or any other legal mechanism related to small satellites that might impose limitations on the design, building, launch or use of space objects by developing countries should not be created.

192. The view was expressed that it would be in the interests of States to consider developing provisions adapted to specific technical characteristics of small satellites, which could be done by adapting existing technical requirements, introducing specific new technical requirements, such as differentiated re-entry requirements, or creating ad hoc legal arrangements, such as simplified authorization or adapted insurance arrangements.

193. The view was expressed that megaconstellations generated valuable data, making them targets for cyberattacks. The delegation expressing that view was also of the view that, as cybersecurity in outer space had the potential to affect national sovereignty and the global economy, a multi-stakeholder international legal regime for space cybersecurity was needed.

194. Some delegations expressed the view that small satellites tended to be operational only for a short period of time, often lacked propulsion systems for executing evasive manoeuvres in case of close approach or specific capacity for post-mission disposal, and frequently did not have readily accessible operator contact information, therefore exacerbating the risk of on-orbit collision.

195. The view was expressed that the huge number of small satellites, in combination with the frequency of the manoeuvres conducted by them, posed difficulties to tracking their movements. The delegation expressing that view was also of the view that that, in turn, made predicting possible close conjunctions in space much more complex.

196. Some delegations expressed the view that, considering the uniqueness of small satellites, they should be given further consideration, in particular with regard to debris mitigation.

197. Some delegations expressed the view that satellite removal or elimination should be done in a responsible manner and that no space object should be removed or eliminated without the prior consent or authorization of the registering State.

198. Some delegations expressed the view that small-satellite activities had impacts on astronomical observations conducted by ground-based observatories.

199. The view was expressed that there should be a more systematic and standardized approach to creating basic guidelines that would facilitate the safe and responsible conduct of operations by all actors involved in the development and operation of small satellites, and that multi-stakeholder consultations should be held to address that need.

200. The view was expressed that, in the light of trends connected to megaconstellations, further discussions under the agenda item should address the rational and equitable use of low Earth orbit and frequency spectrums, ways to avoid operational interference and collision risks, international coordination and the

disclosure of information and data on space situational awareness activities, and how to best register megaconstellations.

201. The view was expressed that discussions under the agenda item should be coordinated with other related agenda items considered by the Committee and its Subcommittees, including space debris mitigation, the long-term sustainability of outer space activities and space traffic management, as well as with relevant discussions held in other international forums, such as ITU.

202. The Subcommittee agreed that the continuation of its work under the present item would provide valuable opportunities to address topical issues relating to international and national policy and regulatory measures regarding the use of small satellites.

XIII. General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources

203. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 15, entitled “General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources”, as an item under a workplan.

204. The representatives of Austria, Australia, Brazil, Canada, China, Finland, France, Germany, Greece, Indonesia, Iran (Islamic Republic of), Italy, Japan, Luxembourg, Malaysia, the Netherlands, New Zealand, Pakistan, the Russian Federation, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 15. The representative of Morocco also made a statement on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

205. At its 1014th meeting, on 28 March, the Subcommittee reconvened its Working Group established under the agenda item, with Andrzej Misztal (Poland) as Chair and Steven Freeland (Australia) as Vice-Chair.

206. At its 1029th meeting, on 6 April, the Subcommittee endorsed the report of the Working Group, contained in annex I to the present report.

207. The Subcommittee had before it the following:

(a) Working paper submitted by Luxembourg and the Netherlands entitled “Building blocks for the development of an international framework on space resource activities” (A/AC.105/C.2/L.315);

(b) Conference room paper submitted by Greece containing a proposal for a questionnaire related to the discussion of item 15 on potential legal models for the exploration, exploitation and utilization of space resources (A/AC.105/C.2/2022/CRP.13);

(c) Conference room paper submitted by the Moon Village Association containing the report of the Moon Village Association on the Global Expert Group on Sustainable Lunar Activities (A/AC.105/C.2/2022/CRP.15);

(d) Conference room paper submitted by Austria, Czechia, Belgium, Finland, Germany, Luxembourg, Norway, Portugal and Romania on the endorsement of the workplan of the working group established under the Legal Subcommittee agenda entitled “General exchange of views on potential legal models for activities in the exploration, exploitation, and utilization of space resources” and proposals for a dedicated international conference on space resources under the auspices of the United Nations (A/AC.105/C.2/2022/CRP.21).

208. The Subcommittee heard a presentation entitled “The role of cultural heritage in developing a legal framework for activities in the exploration, exploitation and utilization of space resources”, by the observers for For All Moonkind.

209. Some delegations recalled the equal status of the official languages of the United Nations and underscored the necessity to respect that equality during the meetings of the different working groups, in terms of the provision of interpretation services.

210. The Subcommittee welcomed the establishment of a working group under the agenda item.

211. Some delegations expressed the view that space resource activities should be undertaken only within a binding legal framework, and that such a framework should guide and define commercial activities in a way that stimulated space exploration for the benefit of humanity.

212. Some delegations expressed the view that the Outer Space Treaty provided the basic framework of international space law and that it contained principles that were relevant to the discussion on developing a framework for space resource activities, namely, that the exploration and use of outer space should be carried out for the benefit and in the interests of all countries and should be the province of all humankind, that outer space should be free for exploration and use by all States, and that neither outer space nor any celestial body or part thereof was subject to national appropriation, by claim of sovereignty, by means of use or occupation, or by any other means. The delegations expressing that view were also of the view that discussions in the working group established under the agenda item were needed to develop a common understanding of those principles in the context of space resource activities.

213. Some delegations expressed the view that any international legal regime governing the exploration, exploitation and utilization of space resources should recognize the efforts of States contributing to and undertaking those activities, while also ensuring that all countries, irrespective of their degree of economic or scientific development, could benefit in ways that did not have a negative impact on investment incentives for public and private engagement and participation in such activities.

214. The view was expressed that the working group established under the agenda item should address a number a questions that arose under the Outer Space Treaty with respect to space resource activities, including how it could be ensured that space resource activities were carried out for the benefit and in the interests of all countries, how it could be ensured that outer space remained free for exploration and use by all States without discrimination of any kind, how free access to all areas of celestial bodies could be ensured, how it could be ensured that space resource mining activities did not amount to national appropriation by means of use or occupation or by any other means, how it could be ensured that due regard was paid to the corresponding interests of other States parties to the Treaty and, finally, how it could be ensured that all stations, installations, equipment and space vehicles were open to other States parties on the basis of reciprocity.

215. Some delegations expressed the view that a framework for space resource activities should be a product of a multilateral approach and based on the principles of sustainable use of natural resources, avoidance of harmful contamination of the space or Earth environment, and efficiency of operations, and that any such activities undertaken with the framework should be implemented in a coherent, sustainable and equitable manner and coordinated at the international level to avoid conflicts and competing interests.

216. Some delegations expressed their commitment to the establishment, under the Moon Agreement, of an international regime, including appropriate procedures, to govern the exploitation of the natural resources of the Moon and other celestial bodies.

217. The view was expressed that the provisions of article 11 of the Moon Agreement regarding the potential establishment of an international regime had future, rather than immediate, effect.

218. Some delegations expressed the view that the legal governance of activities in the exploration, exploitation and utilization of space resources must also take into account environmental aspects, specifically avoiding harmful contamination and adverse changes to the environment on the Moon and other celestial bodies, as well as avoiding adverse changes to the environment of the Earth resulting from the introduction of extraterrestrial matter. The delegations expressing that view also expressed the view that scientific and technical assistance and information coordination should address the relationship between the long-term sustainability of outer space activities with respect to space resource utilization and international space law.

219. The view was expressed that the development of technologies to locate and secure space resources should be encouraged through the implementation of national space laws and policies that respected the principles of international space law, such as the peaceful exploration and use of outer space, cooperation, non-interference and non-appropriation of celestial bodies. The delegation expressing that view was also of the view that further elaboration of practical measures contained in the Outer Space Treaty could be considered that would increase transparency, such as notifications to the United Nations of activities of States in order to ensure that States paid due regard to the corresponding interests of other States.

220. Some delegations expressed the view that States should be encouraged to share information on their activities in relation to space resource utilization, including on their nature, conduct and location. The delegations expressing that view were also of the view that information on the types of missions and technology employed was necessary to ensure that any resulting framework for space resource activities remained appropriate for those activities.

221. Some delegations expressed the view that instruments such as the Artemis Accords provided an initial starting point and a practical set of principles to guide States in the safe and sustainable exploration and use of celestial bodies and space resource activities, in full compliance with the Outer Space Treaty.

222. The view was expressed that unilateral regulation of space resource activities in national legislation or through the development of agreements outside the multilateral setting of the Committee could lead to fragmentation of international space law, which would inevitably lead to significant difficulties in or the impossibility of harmonizing such norms at the international level at subsequent stages of the development of activities for the exploration, exploitation and utilization of space resources.

223. The view was expressed that a substantive discussion of activities in the exploration, exploitation and utilization of space resources could be conducted only after the elaboration of a definition of the relevant subject and terminology. The delegation expressing that view was also of the view that the definition of space resources located in outer space, including the Moon and other celestial bodies, included not only mineral resources, but also other types of resources, such as the geostationary orbit and orbital frequencies.

224. The view was expressed that the attempts of some participants in space activities to legitimize, at the national level, the appropriation of extracted mineral space resources and establish a special legal regime for the exploited areas of celestial bodies by means of establishing “safety zones” contradicted the existing norms of international space law, given that space resources were an integral part of outer space, meaning that national appropriation of them was not permitted, in accordance with article 2 of the Outer Space Treaty.

225. The view was expressed that the Outer Space Treaty did not provide a comprehensive international regime for space resource utilization activities but that neither a need nor a practical basis to create such a regime currently existed. The

delegation expressing that view was also of the view that focus should be placed on ensuring that all States engaged in space resource activities shared a common set of fundamental beliefs, including adherence to the rule of law, transparency and the conduct of space resource activities for peaceful purposes.

226. The view was expressed that any interpretation or application of the Outer Space Treaty or development of rules concerning space resource activities was relevant to the rights and concerns of all States parties to the Treaty, and thus must be in line with the basic legal framework established by the Treaty. The delegation expressing that view was also of the view that it was important for relevant discussions to be conducted under the auspices of the United Nations, bearing in mind the idea of true multilateralism.

227. The view was expressed that space resources could be categorized as either material or non-material.

228. The view was expressed that orbital slots, the geostationary orbit and the frequency spectrum were aspects affecting space activities that fell under the remit of ITU and that focus should be placed on in situ resource utilization as a first step in developing a framework for space resource activities.

229. Some delegations expressed the view that scientific and technical aspects related to the exploration, exploitation and utilization of space resources should be taken into account when developing an international legal framework governing such activities. The delegations expressing that view also expressed the view that greater coordination between the Legal Subcommittee and the Scientific and Technical Subcommittee with regard to space resource activities could facilitate the development of a practical legal framework that was responsive to the operational needs of space actors. Those delegations were also of the view that input on the scientific and technical aspects of space resource activities and related exploration activities might be obtained through appropriate engagement with external stakeholders, such as civil society, non-governmental organizations, academia and the private sector.

230. Some delegations expressed the view that discussions on a legal framework governing space resource activities should take into account relevant work already undertaken, such as the building blocks for the development of an international framework on space resource activities contained in the working paper submitted by Luxembourg and the Netherlands (A/AC.105/C.2/L.315), including the definition of space resources as proposed in those building blocks.

XIV. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its sixty-second session

231. Pursuant to General Assembly resolution 76/76, the Subcommittee considered agenda item 16, entitled “Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its sixty-second session”, as a regular item on the agenda.

232. The representatives of Canada, Chile, Egypt, Iran (Islamic Republic of), the Netherlands, South Africa and the United States made statements under agenda item 16. The observer for CANEUS International also made a statement. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

233. The Subcommittee heard a presentation entitled “Challenges and opportunities for integrating indigenous knowledge into the space legal framework”, by the observer for CANEUS International.

234. The Subcommittee agreed that the following items would be proposed to the Committee for inclusion in the agenda of the Subcommittee at its sixty-second session:

Regular items

1. Adoption of the agenda.
2. Statement by the Chair.
3. General exchange of views.
4. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
5. Status and application of the five United Nations treaties on outer space.
6. 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.
7. National legislation relevant to the peaceful exploration and use of outer space.
8. Capacity-building in space law.
9. Future role and method of work of the Committee.

Items under workplans

10. General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources.

    (Work for 2023 as reflected in the multi-year workplan of the Working Group on Legal Aspects of Space Resource Activities (see para. 206 above and the appendix to annex II to the present report.))

Single issues/items for discussion

11. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee.
12. General exchange of information on non-legally binding United Nations instruments on outer space.
13. General exchange of views on the legal aspects of space traffic management.
14. General exchange of views on the application of international law to small-satellite activities.

New items

15. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its sixty-third session.

235. The Subcommittee took note of the decision by the delegation of Egypt to postpone the submission of its proposal, which had been submitted pursuant to the request of the Subcommittee at its fifty-eighth session (A/AC.105/1203, para. 281), to add a new item to the agenda of the Subcommittee, to be entitled “Space culture: a

new era for human civilization” (A/AC.105/C.2/2021/CRP.20/Rev.1), and to retain its proposal for further consideration at the sixty-second session of the Subcommittee.

236. The view was expressed that the proposal by Egypt, which was aimed at promoting international cooperation in outer space, had received strong cross-regional support during the sixty-first session of the Subcommittee. The delegation expressing that view encouraged the Subcommittee to continue to facilitate engagement in developing the proposal, including the terms of reference and relevant modalities.

237. Some delegations expressed the view that the Legal Subcommittee should consider a new agenda item, starting from its sixty-second session, on reviewing and improving the guidelines for low Earth orbit satellite constellations and addressing the impact of such constellations on radio astronomy and optical and infrared astronomy.

238. Some delegations expressed the view that the consideration of the item on dark and quiet skies for science and society should continue within the framework of the Scientific and Technical Subcommittee, and that the technical discussions needed to be completed before the item could be placed on the agenda of the Legal Subcommittee.

239. The view was expressed that the protection of outer space was a shared responsibility and that, where possible, synergies should be created between the Subcommittees to mitigate the negative impact of megaconstellations on astronomy.

240. Some delegations expressed the view that, before adding new items to the agenda of the Subcommittee, other items needed to be removed from the agenda.

241. Some delegations expressed the view that the proposed practice of making the addition of new items to the agenda contingent upon the deletion of other items constituted criteria that would be difficult to achieve.

242. The view was expressed that there was sufficient room on the agenda of the Subcommittee to accommodate the addition of agenda items for its upcoming sessions.

243. The Subcommittee agreed that IISL and ECSL should again be invited to organize a symposium, to be held during the sixty-second session of the Subcommittee, with due account to be taken of equitable geographical and gender representation among the participants in order to reflect a broad range of opinions, and that the organizers should seek the cooperation of interested academic entities for that purpose.

244. The Subcommittee noted that its sixty-second session had been tentatively scheduled to be held from 20 to 31 March 2023.

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 43 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 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;

(f) 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 the overall topic of registration of large constellations and megaconstellations should remain part of the continued work of the Working Group.

15. 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?

Annex II

Report of the Chair and Vice-Chair of the Working Group on Legal Aspects of Space Resource Activities

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 established under the Legal Subcommittee agenda item entitled “General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources”, with Andrzej Misztal (Poland) as Chair and Steven Freeland (Australia) as Vice-Chair.

2. From 30 March to 6 April 2022, the working group held nine formal and informal meetings. The working group considered the following items:

(a) The name of the working group;

(b) The five-year workplan and methods of work of the working group;

(c) Possible topics and areas of contributions that States members of the Committee may consider when providing information to the working group;

(d) Guidance from States members of the Committee on the international conference on space resources.

3. The working group had before it the documents listed in paragraph 207 of the report of the Legal Subcommittee on its sixty-first session.

4. At its 6th formal meeting, on 6 April, the working group adopted the present report.

5. The working group agreed that it would henceforth be named the Working Group on Legal Aspects of Space Resource Activities, and that that renaming would be without prejudice to the mandate, terms of reference and workplan and methods of work of the working group that had been endorsed by the Committee at its sixty-fourth session (A/76/20, annex III).

6. The Working Group noted that, on the basis of the agreed mandate and terms of reference, it should, in 2022, agree on its detailed workplan and methods of work. Accordingly. the Working Group agreed on the detailed workplan and methods of work, contained in the appendix to the present report.

7. The Working Group noted that the Chair and Vice-Chair would circulate a request in the intersessional period for information from States members of the Committee on issues related to and arising from its mandate, including on potential topics and issues to be addressed through a dedicated international conference convened under the auspices of the United Nations and open to Governments, invited academic and other stakeholders, subject to the availability of extrabudgetary resources. The Working Group also noted that the Chair and Vice-Chair would collate and disseminate such information received from States members and prepare a summary of that information, with the support of the Secretariat, for discussion at the sixty-second session of the Legal Subcommittee, in 2023, in accordance with the detailed workplan and methods of work contained in the appendix to the present report.

8. The Working Group welcomed the strong interest and active participation by States members of the Committee in the work of the Working Group and encouraged States members, in particular developing countries, to continue sharing their views on issues related to space resource activities in order to ensure that the work of the Working Group remained open, inclusive and transparent.

Appendix

Five-year workplan and methods of work for the Working Group on Legal Aspects of Space Resource Activities

Initial tasks to be undertaken in 2022

1. On the basis of the agreed mandate and terms of reference, agree on the detailed workplan and methods of work of the Working Group. This shall include appropriate means of coordination with the Scientific and Technical Subcommittee.

2. Undertake initial administrative, information-collection and stocktaking tasks as provided for in the mandate of the Working Group, including through submissions by States members of the Committee with regard to the mandate and purpose of the Working Group.

Five-year workplan and methods of work for the Working Group on Legal Aspects of Space Resource Activities, with participation of developing countries encouraged

2023: (a) Collation and dissemination by the Chair and Vice-Chair of submissions by States members of the Committee with regard to the mandate and purpose of the Working Group, together with a summary of those submissions prepared by the Chair and Vice-Chair of the Working Group, supported by the Secretariat;

(b) Collect relevant information concerning activities in the exploration, exploitation and utilization of space resources, including with respect to scientific and technological developments and current practices, taking into account their innovative and evolving nature;

(c) Initial exchange of views on a study of the existing legal framework for such activities, in particular the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and other applicable United Nations treaties, also taking into account other relevant instruments, as appropriate;

(d) Initial preparation by the Chair and Vice-Chair of the Working Group, supported by the Secretariat, of a preliminary summary of the information collected and views expressed thus far, for submission to the Working Group for further consideration;

(e) Discuss and reach agreement on the arrangements for a dedicated international conference under the auspices of the United Nations, in accordance with the terms of reference of the Working Group (A/76/20, annex III), with the scope and topics to be addressed at the conference to be more fully elaborated through inputs of States.

2024: (a) Review additional responses received from States in the intersessional period and continue the collection of relevant information and exchange of views as set out under the work for 2023 above;

(b) Review and update the preliminary summary prepared by the Chair of the information collected and views expressed and consolidate any additional relevant information and views presented for submission to the Working Group for further consideration;

(c) Assess the benefits of further development of a framework for such activities including by way of additional international governance instruments;

(d) Convene the international conference, as mentioned above, preferably in conjunction with the sixty-third session of the Legal

Subcommittee, and open to Governments, invited academic and other stakeholders, subject to the availability of extrabudgetary resources. The report on the conference is to be prepared by the Chair of the Working Group, supported by the Secretariat, and submitted to the Working Group for further consideration.

2025: (a) Presentation by the Chair of the Working Group of the activities undertaken thus far by the Working Group to the Scientific and Technical Subcommittee at its sixty-second session;

(b) Continue exchange of views on the preliminary summary prepared by the Chair and Vice-Chair of the information collected and views expressed in line with the work for 2023 above, review and update the preliminary summary and consolidate any additional relevant information and views presented, for submission to the Working Group for further consideration;

(c) Exchange of views on the development of a set of initial recommended principles for such activities, taking into account the need to ensure that they are carried out in accordance with international law and in a safe, sustainable, rational and peaceful manner.

2026: (a) Final review and refinement of the summary of discussions on the existing legal framework for such activities, as well as of the assessment of the benefits of further development of a framework for such activities;

(b) Prepare a draft set of initial recommended principles for such activities by the Chair and Vice-Chair of the Working Group, supported by the Secretariat, taking into account the need to ensure that they are carried out in accordance with international law and in a safe, sustainable, rational and peaceful manner;

(c) Exchange of views and compilation of views expressed on possible areas for further work of the Legal Subcommittee and recommended next steps, which may include the development of potential rules and/or norms, for activities in the exploration, exploitation and utilization of space resources, including with respect to related activities and benefit-sharing, taking into account the summary of discussions on the study of the existing legal framework for such activities, as well as the assessment of the benefits of further development of a framework for such activities and the draft set of initial recommended principles for such activities.

2027: (a) Finalization of a set of initial recommended principles for such activities for the consideration of and consensus agreement by the Committee, followed by possible adoption by the General Assembly as a dedicated resolution or other action;

(b) Adoption by the Committee of a final report of the Working Group, incorporating the results of each of the activities undertaken by the Working Group in accordance with its mandate, as appropriate.