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Report of the Legal Subcommittee on its sixty-second session, held in Vienna from 20 to 31 March 2023

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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-second session at the United Nations Office at Vienna from 20 to 31 March 2023 in a hybrid format (in person and online). The session was chaired by Nomfuneko Majaja (South Africa).

2. The Subcommittee held 20 meetings.

B. Adoption of the agenda

3. At its 1034th meeting, on 20 March, the Subcommittee adopted the following agenda:

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.
10. General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources.
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. 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.
16. Report to the Committee on the Peaceful Uses of Outer Space.

C. Attendance

4. Representatives of the following 84 States members of the Committee attended the session: Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Belarus, Belgium, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Cyprus, Czechia, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Finland, France, Germany, Ghana, Greece, Guatemala, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kenya, Kuwait, Lebanon, Luxembourg, Malaysia, Mexico, Mongolia, Morocco, Netherlands (Kingdom of the), New Zealand, Nicaragua, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Rwanda, Saudi Arabia, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Türkiye, 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 1034th meeting, on 20 March, the Subcommittee decided to admit Uganda 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 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 Organization for Astronomical Research in the Southern Hemisphere (ESO), 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: European Space Policy Institute, For All Moonkind, Hague Institute for Global Justice, International Astronautical Federation, International Astronomical Union (IAU), Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, International Association for the Advancement of Space Safety, International Institute of Space Law (IISL), International Law Association, International Peace Alliance (Space), Moon Village Association, National Space Society, Open Lunar Foundation, Secure World Foundation, Space Generation Advisory Council (SGAC), University Space Engineering Consortium-Global (UNISEC-Global) and World Space Week Association.

10. A list of the representatives of States and United Nations entities and other international organizations attending the session is contained in document A/AC.105/C.2/2023/INF/54.

11. The Subcommittee was informed by the Secretariat of the application for permanent observer status with the Committee submitted by the European Astronomical Society (A/AC.105/C.2/2023/CRP.38), which is to be considered by the Committee at its sixty-sixth session, in 2023.

D. Symposium

12. In accordance with the agreement reached by the Scientific and Technical Subcommittee at its forty-fourth session, in 2007 (A/AC.105/890, annex I, para. 24), and as agreed by the Legal Subcommittee at its sixty-first session, in 2022 (A/AC.105/1260, para. 243) and by the Committee at its sixty-fifth session, in 2022 (A/77/20, para. 282), a symposium was organized by IISL and the European Centre for Space Law (ECSL) on the topic of the legal aspects of dark and quiet skies on 28 March.

13. The symposium was opened by Nomfuneko Majaja, Chair of the Legal Subcommittee, Kai-Uwe Schrogl, President of IISL and Sergio Marchisio, Chair of ECSL. After the opening, the following presentations were made to the Subcommittee:

(a) "Technical introduction", by Andrew Williams of ESO and the IAU Centre for the Protection of Dark and Quiet Sky;

(b) "Astronomer's perspective", by Isidora Casas Del Valle Pacheco of SGAC;

(c) "Legal perspective", by Rafael Moro-Aguilar of Florida International University;

(d) "Orbital slot and frequency management perspective", by Véronique Glaude of ITU;

(e) "Non-governmental perspective", by Ruskin Hartley of the International Dark Sky Association.

14. The Subcommittee noted that the symposium had contributed to the work of the Subcommittee and to raising awareness through its inclusive discussions on space activities.

E. Adoption of the report of the Legal Subcommittee

15. At its 1053th meeting, on 31 March, the Subcommittee adopted the present report and concluded the work of its sixty-second session.

II. General exchange of views

16. 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, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Czechia, Egypt, Finland, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Kenya, Luxembourg, Mexico, Morocco, Netherlands (Kingdom of the), New Zealand, Norway, Pakistan, Paraguay, Peru, Philippines, Poland, Portugal, Republic of Korea, Russian Federation, Singapore, Slovenia, South Africa, Spain, Switzerland, Thailand, Türkiye, Ukraine, United Arab Emirates, United Kingdom, United States and Venezuela (Bolivarian Republic of). A statement was made by the representative of Pakistan on behalf of the Group of 77 and China. A statement was made by the representative of Ghana 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 APSCO, ESA, For All Moonkind, the Hague Institute for Global Justice, the Moon Village Association, the National Space Society, the Open Lunar Foundation, SGAC, the Square Kilometre Array Observatory and UNISEC-Global also made statements.

17. The Subcommittee heard the following presentations:

(a) "The first International Moon Day: results and outlook for 2023", by the observers for the Moon Village Association;

(b) “The lunar commerce portfolio report: main results”, by the observer for the Moon Village Association.

18. At the 1034th meeting, on 20 March, the Chair made a statement in which she referred to the programme of work and organizational matters pertaining to the current session of the Subcommittee. The Chair noted the expansion of space operations in recent years throughout the world. She also noted the corresponding growing need to coordinate and commit to legislative efforts and to non-binding mechanisms and guidelines, which were required to improve global collaboration in space activities to the advantage of all nations, taking into particular account the needs of developing countries.

19. At the same meeting, the Subcommittee heard a statement by the Acting Director of the Office for Outer Space Affairs, in which he, among other things, 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 2022, the Office had registered, on behalf of the Secretary-General, 2,055 functional and 44 non-functional space objects and had received notifications of 317 space object re-entries and additional information on 12 space objects. Since the beginning of 2023, the Office had received registration submissions for 410 functional and non-functional objects.

20. 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.

21. Some delegations expressed the view that the Committee and its subsidiary bodies continued to be the only forum within the United Nations for comprehensive discussions on 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. The delegations expressing that view were also of the view that coordinating the work of the Subcommittees and using the synergies between them would promote understanding and acceptance and would further the implementation of the existing United Nations legal instruments.

22. 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.

23. The view was expressed that international space law, with the Outer Space Treaty at its core, should be strictly adhered to. The delegation expressing that view was also of the view that the obligation of international cooperation in outer space should be carried out in good faith.

24. The view was expressed that the initiatives of States seeking to develop and implement space legislation and regulations consistent with General Assembly resolution 68/74 of 11 December 2013 should be supported through the “Space law for new space actors” capacity-building programme of the Office for Outer Space Affairs for States that wished to participate.

25. Some delegations expressed the view that discussions 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. In the view of those delegations, the international legal framework should be developed in a manner that addressed the concerns of all States.

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. In the view of those delegations, 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. The view was expressed that it was unacceptable and irresponsible to use civil commercial space systems for purposes other than those declared when they were placed into orbit, including to interfere in and prolong armed conflicts.

28. The view was expressed that threatening the safety of space objects was inconsistent with international law.

29. Some delegations expressed the view that issues concerning the use of outer space for security purposes were more appropriately discussed in forums whose mandates focused on those issues.

30. Some delegations expressed the view that the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours, established pursuant to General Assembly resolution 76/231, was conducting important work in Geneva. The delegations expressing that view also expressed the view that there should be mutual consideration on the part of the Committee and its Subcommittees and the open-ended working group of each other’s work, while respecting the differences in the mandates and aiming to avoid the duplication of efforts.

31. The view was expressed that the work of the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours and the work of the Committee were distinct but complementary.

32. Some delegations expressed the view that the Artemis Accords on the Principles for Cooperation in the Civil Exploration and Use of the Moon, Mars, Comets, and Asteroids for Peaceful Purposes provided clear, non-legally binding guidance for space exploration and established a useful set of principles based on the Outer Space Treaty that were aimed at ensuring the safe, transparent, sustainable and beneficial use of space. The delegations expressing that view also noted that the membership of the Artemis Accords had increased to 23 signatory States.

33. Some delegations expressed the view that cooperation on the international lunar research station initiated by China and the Russian Federation provided new opportunities for international cooperation to explore space.

34. Some delegations reiterated 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 also of the view that although the General Assembly, in its resolution 76/76, had noted with satisfaction the progress in the establishment of the regional centre, in the light

of recent developments, they were not in a position to accept any affiliation of that regional centre to the United Nations.

35. 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 for space science and technology education had resulted in the recommendation to accept the offer of the Russian Federation to establish the regional centre and that the Committee had welcomed the progress on the establishment of the regional centre, and thus no additional agreement was required by the Committee. The delegation expressing that view also informed the Committee that the centre was already operational and providing services. Over 100 applicants from various countries in the region had been successfully accepted by the Centre as students.

36. The view was expressed that all delegations should abide by the rules of procedure of the General Assembly and speak to issues strictly within the consensus agenda of the Subcommittee, refraining from politicization.

37. The view was expressed that it was to the discretion of each delegation to determine which issues to raise under each agenda item.

38. Some delegations welcomed that outer space issues relevant to the work of the Committee could feature prominently at the Sustainable Development Goals Summit, to be held in New York in September 2023, and the Summit of the Future, to be held in New York in September 2024, recognizing the need for the international community to come together to discuss ways and means to reinforce space governance in the interest of maintaining a sustainable outer space for the benefit of present and future generations.

39. The Subcommittee expressed its gratitude to the organizers of the following side events, held on the margins of its sixty-second session:

(a) “Space resource activities in Luxembourg: recent developments”, organized by the Permanent Mission of Luxembourg;

(b) “Legal aspects of space traffic management”, organized by the delegation of Japan and IISL;

(c) “Space or high altitude: what’s in a name?”, organized by the European Space Policy Institute;

(d) “The recommended framework and key elements for peaceful and sustainable lunar activities”, organized by the Moon Village Association;

(e) “Launching the lunar policy handbook”, organized by the Secure World Foundation and the Open Lunar Foundation;

(f) “Space law for new space actors”, organized by the Office for Outer Space Affairs.

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

40. Pursuant to General Assembly resolution 77/121, the Subcommittee considered agenda item 4, entitled “Information on the activities of international intergovernmental and non-governmental organizations relating to space law”, as a regular item on its agenda.

41. The representative of Paraguay made a statement under agenda item 4. Statements were also made under the item by the observers for APSCO, For All Moonkind, IISL, Intersputnik, the Open Lunar Foundation, SGAC and SWF. During the general exchange of views, statements relating to the item were made by observers for other international intergovernmental and non-governmental organizations.

42. The Subcommittee heard the following presentations:

(a) "SGAC review of the COPUOS compendium of space debris mitigation standards", by the observer for SGAC;

(b) "Current activities in the Space Generation Advisory Council (SGAC) Space Law and Policy Project Group (SLP PG)", by observers for SGAC.

43. The Subcommittee noted the activities of international intergovernmental and non-governmental organizations relating to space law and that those organizations had continued to hold conferences and symposiums, prepare publications and reports and hold training seminars for practitioners and students in order to broaden and advance knowledge of space law.

44. The Subcommittee also noted the role of international intergovernmental and non-governmental organizations in the development, strengthening and furtherance of the understanding of international space law.

45. The Subcommittee welcomed the information of States members of the Committee regarding the signing of the constitutive agreement establishing the Latin American and Caribbean Space Agency as an international organization with its own legal identity, to act as a regional mechanism responsible for coordinating space activities for its member countries, contribute to the improvement of satellite communication systems and enhance the capacity of early warning and risk mitigation systems. The delegation expressing that view also expressed the view that the Latin American and Caribbean Space Agency would play an essential part in facilitating cooperation among participating countries to realize the benefits of space technology and promote development in the region.

46. The Subcommittee welcomed the information provided by the observer for APSCO, including the information on developing regional and interregional alliances of space law institutions as a key strategic area under the Strategy for Space Law and Policy of APSCO (2021–2030), which had been approved by the APSCO Council in 2020. In that regard, the Subcommittee noted that three meetings had been organized in the period 2021–2022, which had resulted in the establishment of the APSCO Space Law Alliance in 2022, with further meetings planned in order to develop the terms of reference for the Alliance. The Subcommittee also noted the joint capacity-building efforts of APSCO and the Office for Outer Space Affairs to support APSCO member States in drafting national space legislation.

47. The Subcommittee welcomed the information provided by the observer for ECSL and noted the events that ECSL had undertaken or participated in in 2022, which included a model United Nations jointly organized with SGAC; the thirtieth edition of the annual summer course on space law and policy organized with the NOVA School of Law in Lisbon, with the thirty-first edition of the summer course to take place in Budapest in 2023; the annual edition of the ECSL Practitioners' Forum held during the International Astronautical Congress in Paris; and a symposium organized with the Norwegian Space Agency on adapting regulations for the rising number of spaceports. Those events had given European national regulators, operators and academics an opportunity to discuss different perspectives and needs. The Subcommittee noted that in early 2023, ECSL had conducted its executive course on space law and regulation and would offer two more editions of the course this year, and that ECSL would organize the thirtieth edition of the Manfred Lachs Space Law Moot Court Competition, to be held in person at the University of Jaén, Spain.

48. The Subcommittee welcomed the information provided by the observer for IISL and noted the activities that IISL had undertaken or participated in in 2022 and 2023, which included the IISL annual colloquium on current issues in space law, held during the International Astronautical Congress held in Paris in 2022, which covered the topics of dispute settlement, space science, space sustainability and safety zones on celestial bodies; the annual IAA–IISL Scientific Round Tables covering issues related to autonomous intelligent systems in space; the annual Manfred Lachs Space Law Moot Court Competition, the sixteenth Eilene M. Galloway Symposium on Critical

Issues in Space Law, held in Washington, D.C.; and the symposium taking place at the present session of the Legal Subcommittee on the topic “Legal aspects of a dark and quiet sky” jointly organized by IISL and ECSL.

49. The Subcommittee welcomed the information provided by the observer for Intersputnik and noted the activities that Intersputnik had undertaken or participated in in 2022, which included participation in the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours; participation in the Outer Space Security Conference organized by the United Nations Institute for Disarmament Research; and participation in the International Astronautical Congress in Paris, including the IISL Colloquium on the Law of Outer Space. The Subcommittee also noted that Intersputnik had organized its annual “NatSatTel” conference as a platform for capacity-building and international cooperation for its Member States.

50. The Subcommittee welcomed the information provided by the observer for For All Moonkind on its activities, which included the development of a digital catalogue identifying 111 sites on the Moon that contained human-made material; the catalogue will support the protection of those sites as important cultural heritage. In addition, the Subcommittee noted that For All Moonkind organized three high-level summits: a summit on national initiatives of the United States to protect cultural heritage on the Moon, and two summits on the legal aspects of safety zones and their relation to the protection of cultural heritage on the Moon.

51. The Subcommittee welcomed the information provided by the observer for the Open Lunar Foundation on activities it had undertaken or participated in, including the development of the Lunar Policy Handbook in cooperation with SWF, SGAC and For All Moonkind; support for the development of innovative initiatives such as the Breaking Ground Trust, which was an independent legal entity that purchased lunar regolith collected by lander missions; and support for the creation of a dedicated independent lunar policy platform to facilitate the cooperative development of lunar policies and standards of behaviour such as the sharing of information under article XI of the Outer Space Treaty.

52. The Subcommittee welcomed the information provided by SWF, including on its events and conferences focused on the three core activities of the Foundation: ensuring the long-term sustainability of outer space activities; fostering the development of sound space policy and law; and enhancing the use of space technology and international cooperation to support human and environmental security on Earth. The Subcommittee also noted that the Handbook for New Actors in Space, which had first been published in 2016, had been published in Spanish, in partnership with the Mexican Space Agency, in 2020, and the French and Chinese versions had been published in 2021, with electronic versions of all editions to be made available on the website of the Foundation (http://swfound.org/handbook). Finally, the Subcommittee noted the contribution of SWF to the organization of the 2022 North American Rounds of the Manfred Lachs Space Law Moot Court Competition.

53. The Subcommittee welcomed the information provided by SGAC, and noted activities undertaken by SGAC in 2022 included the development of the Lunar Policy Handbook, in cooperation with the Open Lunar Foundation, SWF and For All Moonkind; the development by the SGAC Space Law and Policy Project Group of a white paper on space infrastructure development and the drafting of national space legislation in African countries; and the Space Law and Policy Project Group’s work on reviewing the compendium of space debris mitigation guidelines.

54. The Subcommittee agreed that it was important to continue to exchange information on recent developments in the area of space law with international intergovernmental and non-governmental organizations, and that such organizations should once again be invited to report to the Subcommittee, at its sixty-third session, on their activities relating to space law.

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

55. Pursuant to General Assembly resolution 77/121, the Subcommittee considered agenda item 5, entitled “Status and application of the five United Nations treaties on outer space”, as a regular item on its agenda.

56. The representatives of Canada, China, France, Germany, Indonesia, Iran (Islamic Republic of), Luxembourg, Paraguay, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 5. A statement was made by the representative of Pakistan on behalf of the Group of 77 and China. A statement was also made under the item by the observer for the Open Lunar Foundation. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

57. At its 1034th meeting, on 20 March, the Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, with Franziska Knur (Germany) as its new Chair.

58. The Subcommittee had before it the following:

(a) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2023 (A/AC.105/C.2/2023/CRP.3);

(b) Conference room paper containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space received from Algeria, Slovakia and the International Society for Photogrammetry and Remote Sensing (A/AC.105/C.2/2023/CRP.27);

(c) Conference room paper containing a schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2023/CRP.28);

(d) Conference room paper containing responses to the questionnaire on the application of international law to small-satellite activities received from Algeria, Bolivia (Plurinational State of), Japan and the International Society for Photogrammetry and Remote Sensing (A/AC.105/C.2/2023/CRP.29);

(e) Conference room paper on dedicated tools and practices for enhanced information-sharing submitted by Belgium, Czechia, Germany, Finland, Luxembourg and the Netherlands (Kingdom of the) (A/AC.105/C.2/2023/CRP.40).

59. 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.2/2023/CRP.3.

60. The Subcommittee noted with appreciation the document submitted by the Working Group of Status and Application of the Five United Nations Treaties on Outer Space 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).

61. 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.

62. 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.

63. Some delegations expressed the view that space activities should be conducted in conformity with applicable international space law because space activities were expanding due to the growing number of space actors and benefits derived from space science technology and applications.

64. The view was expressed 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 issues 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.

65. The Subcommittee noted with appreciation the initiative of the Office for Outer Space Affairs to modernize the United Nations Register of Objects Launched into Outer Space and the launching of the project entitled "The Registration Project: supporting implementation of treaty obligations related to the registration of objects launched into outer space" aimed at improving awareness of and promoting the coherent application of the Convention on Registration of Objects Launched into Outer Space (Registration Convention).

66. The Subcommittee noted that it was important to enhance the practice of registration, in particular, with regard to large constellations and megaconstellations.

67. The view was expressed that the definition of a space object, which was very broad, posed new challenges for the international coordination of the registration of single satellites launched as part of a constellation.

68. The view was expressed that any strengthening of the registration practice with regard to large constellations and megaconstellations should be in conformity with the liability addressed in the existing legal framework constituted by, in particular, the Convention on International Liability for Damage Caused by Space Objects (Liability Convention) and the Registration Convention.

69. The view was expressed that national legislation and the establishment of a national registry played a key role in compliance with the existing international legal framework on the registration of space objects.

70. The view was expressed that, in accordance with the territorial rights relating to the provision of services, including Internet services, satellite operators must obtain a licence from the communications regulators of each country of operation in accordance with the requirements and conditions of that country. The delegation expressing that view also expressed the view that because a satellite operator had activated its Internet services within the territory of that delegation's country without having obtained any licence to do so, that topic should be addressed by the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.

71. The view was expressed that ITU was the primary forum in the United Nations system for international coordination of matters related to the space radio telecommunication services and that the Committee and its subsidiary bodies were not the appropriate forums to discuss such matters.

72. Some delegations expressed the view that there was a need for dedicated tools and practices for enhanced information-sharing under article XI of the Outer Space Treaty and suggested that discussions on that topic should take place within the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space. The delegations expressing that view welcomed the conference room paper submitted by Belgium, Czechia, Germany, Finland, Luxembourg and Netherlands (Kingdom of the) in that regard.

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

73. Pursuant to General Assembly resolution 77/121, the Subcommittee considered, as a regular item on its agenda, agenda item 6, 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."

74. The representatives of Argentina, China, Colombia, France, Indonesia, Mexico, the Russian Federation, Ukraine, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 6. Statements were also made by the representative of Pakistan 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.

75. 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 and A/AC.105/865/Add.28);

(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 and A/AC.105/1039/Add.19);

(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 and A/AC.105/1112/Add.12);

(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 and A/AC.105/1226/Add.3);

(e) Conference room paper containing information provided by Tunisia (A/AC.105/C.2/2023/CRP.34).

76. At its 1034th meeting, on 20 March, the Legal Subcommittee reconvened its Working Group on the Definition and Delimitation of Outer Space, with Ian Grosner (Brazil) as its new Chair.

77. The Subcommittee, at its 1048th meeting, on 29 March, endorsed the report of the Chair of the Working Group, contained in annex II to the present report.

78. The view was expressed that determining the boundary between airspace and outer space was a priority, as uncertainty in the matter increased risks to the conduct of space activities and made it difficult for States to exercise their sovereign rights over national territory, of which airspace was a part.

79. The view was expressed that the absence of a definition and delimitation of outer space would lead to legal uncertainty and that 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.

80. The view was expressed that discussions on the definition and delimitation of outer space should be balanced, as the legal status of outer space and airspace were fundamentally different, and that work on the topic should promote the free exploration and use of outer space while fully respecting the principle of sovereignty over airspace and ensuring that the rules of air law were not prejudiced.

81. The view was expressed that the boundary between outer space and airspace should be established by agreement between States at an altitude not exceeding 110 km above sea level and should be legally fixed by the conclusion of a binding international legal instrument. In that connection, the delegation expressing that view recalled the approach contained in document A/AC.105/C.2/L.139.

82. The view was expressed that the determination of the delimitation of outer space as being between 100 and 110 km above sea level was based on comprehensive aspects, including scientific, technical and physical characteristics, namely, atmospheric layers, the maximum altitude aircraft can reach, the perigee of orbiting spacecraft and the Karman line.

83. The view was expressed that space law needed to be harmonized with air law, because the suborbital space industry could otherwise face limitations. The delegation expressing that view was also of the view that the development of a space traffic management regime necessitated the definition and delimitation of outer space.

84. The view was expressed that the functionalist approach to space law had been the norm since the inception of space activities, that the absence of a definition and delimitation of outer space did not create uncertainty as to the respective applicability of legal regimes and that it was not appropriate, in the current state of space activities, to define and delimit outer space.

85. The view was expressed that an attempt to define and delimit outer space would be an unnecessary theoretical exercise that could unintentionally complicate existing activities and that might not be adaptable to future technological developments. The delegation expressing that view was also of the view that as the current framework had served everyone well, the international community should continue to operate under it until there was a demonstrated need and a practical basis for developing a definition or delimitation of outer space.

86. The view was expressed that while some jurisdictions within a State had adopted or proposed definitions of outer space or related concepts for their own purposes, such as regulatory compliance or tax laws, those actions did not relate to, and were not evidence of, the existence of a definition of outer space under international law.

87. The view was expressed that relevant information on suborbital flights for scientific missions and/or crewed transport should continue to be collected and that in the study of the legal regime applicable to suborbital flights, different rules should be applied, depending on how deep into space the flights extended and whether the flights were undertaken for peaceful purposes.

88. The view was expressed that one approach to regulating orbital and suborbital launches was to look at the purpose and function of the mission. The delegation expressing that view was also of the view that defining where space began was not necessary for regulating those activities and was not required for considering future space traffic management, and that such an approach to space activities allowed the development of a regulatory regime that was more flexible and readily adaptable to innovation in a rapidly evolving sector.

89. The view was expressed that the lack of progress in reaching consensus on the definition and delimitation of outer space should not be viewed as an argument in favour of suspending work on the topic.

90. 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 because the legal regimes governing airspace and outer space were different.

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

92. 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.

93. 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, efficient, 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.

94. The view was expressed that the interests and needs of developing countries needed to be taken into account because space activities created opportunities that benefit not only those countries with a stronger technical and financial capacity.

95. The view was expressed that there were existing concerns regarding the distribution of geostationary orbital slots and that inequalities, inefficiencies and bureaucratic congestion in the utilization of the geostationary orbit remained serious challenges that should be treated within the Committee.

96. Some delegations expressed the view that although all Member States could participate in and present contributions to the work of ITU, those activities should not be an obstacle hindering the Committee and its Legal Subcommittee in establishing synergies and working to adjust practices and technical regulations in cooperation with ITU on topics related to the equitable use of the geostationary orbit and other orbital resources.

97. 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.

98. The view was expressed that equitable access to the geostationary orbit involved matters outside the remit of ITU and that access to the geostationary orbit was a critical issue for developing countries and should be treated within the Committee.

99. The view was expressed that equitable access to the geostationary orbit was ensured through the free provision of resources stemming from the Global Positioning System of the United States such as weather and warning data, including information about hurricanes, volcanic eruptions, effluent flooding, droughts and related environmental matters from meteorological and environmental satellites; and the International Cospas-Sarsat Programme, the satellite system for search and rescue that provided a means for ships, aircraft and others in distress to signal their need for help and their location.

100. 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 that could ensure the sustainability of and equitable access to the geostationary orbit.

101. 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 of countries, in particular developing countries, and facilitating their inclusion in such projects.

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

102. Pursuant to General Assembly resolution 77/121, the Subcommittee considered agenda item 7, entitled “National legislation relevant to the peaceful exploration and use of outer space”, as a regular item on its agenda.

103. The representatives of Australia, Austria, China, Colombia, Finland, France, Indonesia, Japan, Kenya, Mexico, the Russian Federation, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 7. A statement was also made under the item by the observer from the Square Kilometre Array Observatory. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

104. The Subcommittee had before it a conference room paper entitled “Schematic overview of national regulatory frameworks for space activities” (A/AC.105/C.2/2023/CRP.28).

105. The Subcommittee heard a presentation entitled “Update on United States In-Space Authorization and Supervision Policy development”, by the representative of the United States.

106. 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 sustainability of outer space activities.

107. The Subcommittee noted that various activities had been taken by 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.

108. 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.

109. Some delegations expressed the view that it was important to share and learn from the practices set out in national space legislation. In that connection, the Subcommittee welcomed the update made by the Secretariat to the schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2023/CRP.28), which enabled States to gain an understanding of existing national regulatory frameworks, share experiences on national practices and exchange information on national legal frameworks.

110. The Subcommittee took note of the efforts made in the framework of the Asia-Pacific Regional Space Agency Forum (APRSAF) National Space Legislation Initiative for national implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II), as well as for the involvement of private entities in space activities as regulated through the related national legislation.

111. 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 the 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

112. Pursuant to General Assembly resolution 77/121, the Subcommittee considered agenda item 8, entitled “Capacity-building in space law”, as a regular item on its agenda.

113. The representatives of Argentina, Austria, Azerbaijan, Brazil, China, Colombia, France, Germany, Greece, Indonesia, Japan, Luxembourg, Mexico, Paraguay, Peru, Philippines, the Russian Federation, South Africa, Thailand, Ukraine and the United Kingdom made statements under agenda item 8. The representative of Pakistan 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.

114. The Subcommittee had before it a conference room paper containing the directory of education opportunities in space law (A/AC.105/C.2/2023/CRP.4).

115. The Subcommittee heard the following presentations:

(a) “Capacity-building in space law: the space law essay competition”, by the representative of Austria;

(b) “Collaboration on the Cologne Commentary on Space Law and its recent translations”, by the representative of Germany;

(c) “Gennadiy Zhukov International Space Law Centre of the Department of International Law (Peoples’ Friendship University of Russia (RUDN University))”, by the representative of the Russian Federation;

(d) “Translation of the Cologne Commentary of Space Law into Spanish: an experience in capacity-building”, by the representative of Spain;

(e) “Office for Outer Space Affairs/APSCO project for capacity-building in drafting national space legislation for APSCO member States”, by the observer for APSCO;

(f) “The 2023 Space Studies Programme in Brazil”, by the observers for IISL and ISU.

116. 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.

117. 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.

118. 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.

119. 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, it provided support for more than five technical advisory missions to emerging space-faring nations, as well as for the development of the Accessing Space Treaty Resources Online portal,[1] through which information was shared to support capacity-building. The Subcommittee noted that some member States had contributed to technical advisory missions in the framework of the “Space law for new space actors” project.

120. 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.

121. The Subcommittee noted that the Office for Outer Space Affairs had updated the directory of educational opportunities in space law (A/AC.105/C.2/2023/CRP.4), 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.

122. The Subcommittee recommended that States members and permanent observers of the Committee inform the Subcommittee at its sixty-third 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

123. In accordance with General Assembly resolution 77/121, the Subcommittee considered agenda item 9, entitled “Future role and method of work of the Committee”.

124. The representatives of Argentina, Canada, Chile, China, France, Germany, Indonesia, Netherlands (Kingdom of the), the Russian Federation, Ukraine and the United Kingdom made statements under agenda item 9. A statement was made by the representative of Ghana on behalf of the Group of African States. During the general

[1] See https://astro.unoosa.org.

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

125. 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.408).

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

127. Some delegations expressed the view that it was necessary to strengthen coordination between the Committee and other United Nations bodies, mechanisms and processes, and that the work related to outer space of each of those bodies should be carried out in accordance with its respective mandate.

128. The view was expressed that transferring the discussion of important topics on the space agenda to parallel platforms would have a negative effect on the role of the Committee.

129. The view was expressed that the consideration of issues within the purview of the Committee had not been transferred to the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours, based in Geneva. The delegation expressing that view also expressed the view that the work of the open-ended working group focused on threats by States to space systems, while the work conducted in the Committee focused on the safety and sustainability of space activities, and that those two discussions were relevant to each other.

130. The view was expressed that the agenda and activities of the open-ended working group on reducing space threats through norms, rules and principles of responsible behaviours in many respects directly reflected issues that were within the mandate and agenda of the Committee and its subcommittees and that the discussions of the open-ended working group were being carried out without due consideration of the Vienna experience. The delegation expressing that view also expressed deep concern at the attempts to undermine the primacy of the Committee by moving the discussion of core issues to other forums.

131. The view was expressed that it was necessary to reorganize the Committee on the Peaceful Uses of Outer Space to make it a relevant international organization that would take care of the issue of space law in all aspects.

132. The view was expressed that the transparency of the work of the Office for Outer Space Affairs should be enhanced given the Office’s growing programme of activities, including those using extrabudgetary resources.

133. The view was expressed that the principle of consensus followed by the Committee allowed it to make universally applicable decisions.

134. The view was expressed that it was important to retain the intergovernmental nature of the governance of outer space activities.

135. The view was expressed that the private sector and the legal community should be included in the work of the Committee.

136. Some delegations expressed the view that although non-governmental processes could benefit or supplement the work of the Committee in certain ways, such processes should not interfere with that work.

137. The view was expressed that persistent efforts should be made to achieve more diversified and institutionalized capacity-building, that continued support should be given to all regional centres for space science and technology education, affiliated to the United Nations, and that those centres should enhance their exchanges and cooperation with one another. The delegation expressing that view also expressed the view that with the rapid development of private sector activities in outer space, commercial space entities were expected to shoulder more responsibilities in terms of capacity-building.

138. Some delegations expressed that view that the subcommittees should increase coordination, interaction and synergies on cross-cutting issues.

139. Some delegations expressed the view that such cross-cutting issues might include the long-term sustainability of outer space activities, space debris, space traffic management, megaconstellations, space resources, lunar space exploration, and the prevention and resolution of conflicts arising from outer space activities.

140. The view was expressed that such cross-cutting issues could be addressed by including a common item in the agenda of both subcommittees and the Committee, for example, an agenda item entitled “sustainable lunar activities”.

141. Some delegations expressed the view that the Committee and its subcommittees should pay more attention to new developments and challenges in the peaceful uses of outer space, for example, the challenge posed by large constellations and megaconstellations.

142. The view was expressed that the issue of the cybersecurity of space activities should be included on the agenda of the Subcommittee.

143. The view was expressed that annual reports on national space activities were an important endeavour for transparency and capacity- and confidence-building and had the additional benefit of making it possible to reduce the length of statements delivered in the Subcommittee.

144. Some delegations expressed that view that it was necessary to return to the full in-person format of sessions in order to benefit from three hours of interpretation per meeting.

145. Some delegations expressed the view that it was important to maintain a hybrid format at future sessions.

146. Some delegations expressed that view that the webcasting of plenary meetings should be continued.

147. The view was expressed that a procedure to be followed 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.

148. 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.

149. Some delegations expressed that view that consideration be given to merging agenda items 11, 13 and 14, on space debris, space traffic management and small-satellite activities.

150. Some delegations expressed that view that consideration be given to merging agenda items 5, 7 and 8 into a new agenda item entitled “Application and implementation of the five United Nations treaties on outer space”.

151. Some delegations expressed the view that substantive items on the agenda should be scheduled consecutively rather than distributed throughout the session.

152. The view was expressed that some flexibility could be given for scheduling the items linked to working groups that were to meet during the session of the Subcommittee.

153. Some delegations expressed the view that the limit of five minutes for statements should be continued to ensure agenda items could be spoken on and agreed with interpretation services.

154. The view was expressed that formal meetings of working groups could benefit from being both longer and fewer in number, and from being scheduled for the second week of the session, after the completion of informal meetings.

155. Some delegations expressed that view that the volume of paper copies of in-session documentation should be minimized and that only procedural documents, such as reports and resolutions, should be printed.

156. The view was expressed that the secretariat should make available advance edited versions of reports, as they had been adopted, immediately after the session, and should screen all proposed revisions to the text of the report during the adoption.

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

157. Pursuant to General Assembly resolution 77/121, the Legal Subcommittee considered agenda item 10, 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.

158. The representatives of Argentina, Australia, Austria, Belgium, Brazil, Canada, China, Colombia, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Luxembourg, Malaysia, Netherlands (Kingdom of the), New Zealand, Norway, Pakistan, the Russian Federation, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under the agenda item. The representative of Pakistan also made a statement on behalf of the Group of 77 and China. Statements were also made under the item by the observers for the Open Lunar Foundation, the Secure World Foundation and SGAC. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

159. At its 1034th meeting, on 20 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.

160. The Subcommittee noted that the Working Group on Legal Aspects of Space Resource Activities had held five meetings from 21 to 30 March 2023 and had held informal consultations during the current session but could not reach consensus on adopting its report.

161. The Subcommittee had before it the following:

(a) Document entitled “Summary by the Chair and Vice-Chair of views and contributions received on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities” (A/AC.105/C.2/120);

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

(c) Working paper submitted by Belgium entitled “Contribution by Belgium to the general exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources (A/AC.105/C.2/L.325);

(d) Conference room paper submitted by the Chair and Vice-Chair of the Working Group entitled “Working Group on Legal Aspects of Space Resource Activities: status overview” (A/AC.105/C.2/2023/CRP.5);

(e) Conference room paper containing a proposal submitted by Australia, Austria and Netherlands (Kingdom of the) entitled “Relevant considerations for developing a set of initial recommended principles for the exploration, exploitation and utilization of space resources” (A/AC.105/C.2/2023/CRP.6);

(f) Conference room paper submitted by Australia containing its response to the invitation to provide information on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.7);

(g) Conference room paper submitted by Azerbaijan containing a submission by the Space Agency of Azerbaijan (Azercosmos) on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.8);

(h) Conference room paper submitted by Bahrain containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.9);

(i) Conference room paper submitted by Belarus containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.10);

(j) Conference room paper submitted by Canada containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.11);

(k) Conference room paper submitted by France containing its contribution to the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.12);

(l) Conference room paper submitted by Germany containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.13);

(m) Conference room paper submitted by Greece containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.14);

(n) Conference room paper submitted by Jordan containing information and proposals on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.15);

(o) Conference room paper submitted by Luxembourg containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.16);

(p) Conference room paper submitted by Morocco containing comments on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.17);

(q) Conference room paper submitted by New Zealand containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.18);

(r) Conference room paper submitted by Norway containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.19);

(s) Conference room paper submitted by the Russian Federation containing its views on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.20);

(t) Conference room paper submitted by the United Kingdom containing its views on space resource utilization and the mandate and scope of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.21);

(u) Conference room paper submitted by the European Space Agency containing its input for the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.22);

(v) Conference room paper submitted by the Moon Village Association containing its input for the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.23);

(w) Conference room paper submitted by the National Space Society containing information and views for consideration by the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.24);

(x) Conference room paper submitted by the Open Lunar Foundation containing its submission to the Chair and Vice-Chair of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.25);

(y) Conference room paper submitted by the Space Generation Advisory Council entitled "Effective and adaptive governance for a lunar ecosystem" (A/AC.105/C.2/2023/CRP.26);

(z) Conference room paper submitted by the Moon Village Association on the global expert group on sustainable lunar activities: status/deliverables/plan (A/AC.105/C.2/2023/CRP.31);

(aa) Conference room paper submitted by the Hague Institute for Global Justice on the Washington compact on norms of behaviour for commercial space operations (A/AC.105/C.2/2023/CRP.32);

(bb) Conference room paper submitted by Japan containing information on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.33);

(cc) Conference room paper submitted by For All Moonkind containing its submission on the mandate and purpose of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.35);

(dd) Conference room paper submitted by Belgium containing its contribution to the general exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources (A/AC.105/C.2/2023/CRP.36);

(ee) Conference room paper submitted by the United States containing its initial submission to the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/C.2/2023/CRP.37);

(ff) Conference room paper submitted by Belgium and Luxembourg entitled "Joint proposal for an international conference to take place in 2024 in accordance with the five-year workplan and methods of work for the Working Group" (A/AC.105/C.2/2023/CRP.41).

162. The Subcommittee heard the following presentations:

(a) "Ethical code for outer space", by the representative of Israel;

(b) "In situ resource utilization considerations for human exploration", by the representative of the United States;

(c) "Placing culture at the heart of development", by the observer for For All Moonkind;

(d) "Understanding space as a global commons", by the observer for SGAC.

163. The Subcommittee welcomed the formal start of the Working Group on Legal Aspects of Space Resource Activities under its multi-year workplan and noted with appreciation the high level of interest among delegations and the substantive depth of submissions containing information on the mandate and purpose of the Working Group.

164. Some delegations expressed the view that the discussion of space resources should be as inclusive as possible for the benefit and in the interest of all humankind, taking into consideration the needs of developing countries and that any approach for developing a framework for the exploration, exploitation and utilization of space resources should be equitable, constructive, collaborative and based on consensus, and, most of all, that did not leave behind or unfairly disadvantage developing countries. The delegations expressing that view also expressed the view that to be

inclusive and transparent, discussions on space resources should take place in the formal meetings of the Subcommittee and the Working Group, and sufficient time should be allotted to those discussions, with interpretation services in the six official languages of the United Nations.

165. The view was expressed that the Working Group, before starting substantive discussions on the proposal on the set of principles regulating such activities, must reach a decision on which resources were to be considered by the Working Group.

166. The view was expressed that it was not necessary to have a definition of space resources to develop general principles on such activities.

167. Some delegations expressed the view that in light of the increasing participation and growing potential of the private sector in space activities, the negotiation of a possible international legally binding instrument that clearly defined and guided commercial activities in outer space could play an important role in expanding the use of outer space and stimulate space activities for the benefit of humanity and that a broad debate about the implications of space resource activities was needed so that developing counties were not excluded from the benefits of space exploration and that their rights were taken into account in the discussion.

168. Some delegations expressed the view that the Committee and, in particular, the Legal Subcommittee were the proper forum to promote the development of a set of possible rules, principles and norms for the governance of activities for the exploration, exploitation and use of space resources and, in particular, space resource activities undertaken for commercial purposes.

169. Some delegations expressed the view that measures should be adopted that enabled all nations to participate in space resource activities in a peaceful, equitable, secure and sustainable manner, irrespective of their degree of scientific and technological development and whether or not they had the capacity to engage in such space resource activities on their own. The delegations expressing that view also expressed the view that a regulatory framework should be based on existing principles of international space law and should ensure the sustainability of space resources, and that the regulatory framework should be completed before carrying out actual activities for the exploration, exploitation and utilization of space resources.

170. Some delegations expressed the view that at the present stage, there was neither a need nor a practical basis to create a comprehensive international regime for space resource utilization activities, as humanity was in its earliest days of space resource exploration, exploitation and utilization. The delegations expressing that view also expressed the view that the utilization of space resources, including commercial utilization, could be done consistently with the four core United Nations space treaties and that the Outer Space Treaty shaped the manner in which space resource activities could be carried out but did not broadly preclude that activity. The delegation expressing that view also expressed the view that there was, however, an urgent need to ensure that all nations engaged in space resource activities shared a common set of fundamental values – respect for the rule of law, transparency and the exploration and use of outer space peaceful purposes, among others – and that the Artemis Accords underscored those and other essential principles and served as a starting point for the signatories of the Artemis Accords with respect to future work on space resources.

171. The view was expressed that there was a need to create a conceptual framework for research into and the use of space resources as a first step towards the development and harmonization of mutually acceptable approaches to the international regulation of such activities, and that in doing so one must bear in mind that the concept of space resources also included radio frequencies, orbits and solar energy, among other things. The delegation expressing that view also expressed the view that unilateral national measures to legalize the appropriation of extracted mineral resources and the establishment of exclusionary safety zones around space resource installations, which were not recognized as legitimate by the international community, would inevitably lead to the fragmentation of international space law, and that therefore every effort

should be made to address those issues within the exclusive framework of the Committee and the Working Group.

172. Some delegations expressed the view that the subject of consideration with respect to space resources did not include orbits, radio frequencies or solar energy and that the Working Group should avoid overlapping with or duplicating areas of work within the mandates of other forums, including ITU.

173. The view was expressed that orbits, radio frequencies and solar energy were not to be considered within the Working Group as they constituted different kinds of space resources.

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

175. The view was expressed that the international community needed a framework for developing activities related to space resources that, in particular, addressed issues with an international legal dimension, such as the regulation of access to resources, the coexistence of activities by different space actors on the same celestial body, recognition by States of any rights over resources that would be conferred to operators, the prevention of various risks, and the preservation of the environment of the celestial body concerned.

176. The view was expressed that it was important to ensure that the work of the Working Group remained relevant and beneficial to the international community, and that it was therefore recommended to consider first those space resources within reach of human capabilities, in particular in situ resource utilization; that topographical features of the Moon and other celestial bodies, such as pristine conditions for astronomy, radio silence and cold traps, should receive due consideration; and that special diligence was required to safeguard the freedom of scientific investigation.

177. Some delegations expressed the view that States intending to undertake space resource activities should engage in the systematic and regular sharing of information on the scope, nature and location of their space resource activities in order to ensure that those activities had legitimate international recognition and remained in accordance with the Outer Space Treaty and broadly compliant with States' obligations under international law. That course of action would improve transparency and strengthen confidence that those activities were for peaceful purposes.

178. The view was expressed that an enhanced system for sharing information on space resource activities and their scientific results should be foreseen, building on the existing legally and non-legally binding instruments as well as on the inputs of institutional actors, non-governmental organizations and academia.

179. Some delegations expressed the view that any rules developed relating to space resource activities should strike a balance between being flexible enough to adapt to the rapidly changing scientific, technological and operational aspects of space resource activities and, at the same time, providing a stable and predictable legal environment that encouraged space resource activities.

180. The view was expressed that sharing information on space resource activities would be a foundation for international cooperation and capacity-building for promoting transparency and confidence-building.

181. The view was expressed that States and national space agencies could still benefit from having commercial arrangements in place to support scientific investigations, such as the utilization of non-governmental entities to return lunar regolith to the Earth for scientific investigation. The delegation expressing that view

considered that to be compatible with article I of the Outer Space Treaty and the use of space resource utilization in support of science and exploration.

182. The view was expressed that in order to make the output of the Working Group relevant, practical and useful for States seeking to engage in space resource activities, more scientific and technical information was needed on the reasonably foreseeable capabilities of States, and to that end, delegations to the Legal Subcommittee were encouraged to facilitate information, which was to be provided by their State's respective delegation to the Scientific and Technical Subcommittee, in order to make that information available and foster greater coordination between the two subcommittees.

183. Some delegations expressed the view that the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement) set out specific principles relevant to the exploration of the Moon and envisaged the potential establishment of a regime to govern exploitation of the Moon's natural resources.

184. Some delegations expressed the view that the Artemis Accords were consistent with the Outer Space Treaty and that the signatories of the Artemis Accords intended to use their experience with regard to the Accords to contribute to multilateral efforts to further develop international practices and rules applicable to the extraction and utilization of space resources, including through ongoing efforts in the Committee and its subcommittees.

185. Some delegations expressed the view that space accords, including the Artemis Accords, that were going forward outside the frameworks of international organizations, would result in fragmentation among the States Members of the United Nations and that this issue should be considered by the Committee.

186. Some delegations expressed the view that the conference room paper entitled "Relevant considerations for developing a set of initial recommended principles for the exploration, exploitation and utilization of space resources" (A/AC.105/C.2/2023/CRP.6) set out key themes of the Outer Space Treaty, the Moon Agreement, the Hague Building Blocks and the Artemis Accords in order to identify the similarities of those instruments.

187. Some delegations expressed the view that there was an urgent need to develop a common understanding of the applicability of existing provisions of international space laws to space resource activities and to address any perceived discrepancies through consensus-based multilateral discussions, and that the Working Group's output of developing an initial set of principles would bring legal certainty and predictability for all private and public actors intending to explore, exploit and utilize space resources.

188. Some delegations expressed the view that while it was clear that national appropriation of outer space, including the Moon and other celestial bodies, was prohibited under international law, it remained unclear whether non-renewable space resources, such as minerals and water, could be the subject of an ownership regime, and that in the context of analysing the basic principles related to space resource activities, the Working Group could discuss related issues such as the legality of commercial exploitation and carry out rule-making on that basis.

189. The view was expressed that it was the duty of States parties to the Outer Space Treaty to ensure that entities within their jurisdiction that conducted commercial and private activities in outer space complied with the provisions of the Treaty and international law. The delegation expressing that view also expressed the view that the automatic conclusion of legal permissibility, borne of the proposition that "everything which is not forbidden is allowed", and a legal order founded on an idea of "respect the order of arrival" would create de facto monopolies, thereby negating the fundamental principle that the exploration and use of outer space including the Moon and other celestial bodies was to be carried out for the benefit and in the interest of all countries.

190. The view was expressed that scarce, non-renewable space resources should not be monopolized to the detriment of the legitimate interests of other States by a small group of technologically advanced States that led the way in the exploration, exploitation and utilization of space resources. The delegation expressing that view also expressed the view that any new governance framework developed within the Working Group must therefore carefully ensure that the legitimate interests of emerging spacefaring nations were protected and ensure respect for the comprehensive protection afforded by the Outer Space Treaty and customary international law to the scientific investigation, exploration and use of outer space.

191. Some delegations expressed the view that in order to avoid conflict arising from competing interests, the Subcommittee should develop a multilateral mechanism or instrument within the framework and under the supervision of the United Nations that provided a forum for and managed the coordination, cooperation and the deconfliction of space resource activities in order to protect the rights and interests of all States, in particular developing countries. The delegations expressing that view also expressed the view that such a framework within the United Nations would ensure the fair management of and equitable access to space resources and the expansion of opportunities for utilizing space resources by those States undertaking such activities, and would ensure the equitable sharing by all countries of the benefits derived from space resource activities.

192. The view was expressed the Committee and its subcommittees were the appropriate and legitimate forums possessing the qualifications and mandate for the discussion and construction of binding norms that govern the activities of exploration, exploitation and use of outer space resources, which should be developed on the basis of the current agreements and legal framework that governed activities in outer space, and that States must enact national legislation in accordance with the international treaties to ensure the peaceful use of outer space, notwithstanding the commercialization of outer space. The delegation that expressed that opinion stated that the practices traditionally used in the exploitation of resources on the Earth were incompatible with the principles contained in the space treaties, and that the regulations to be consolidated into a proposed set of principles should ensure the preservation of the terrestrial biosphere from the introduction of unknown materials that could be dangerous for its delicate ecosystem.

193. The view was expressed that it was important to conduct a scientific and technical study of the Moon and other celestial bodies to determine whether the exploitation of space resources would adversely affect the space environment or cause the harmful contamination of and adverse changes in the environment of the Earth in a way that was consistent with the basic objective of exploration and use of outer space for peaceful purposes.

194. Some delegations expressed the view that space resource activities must be conducted in accordance with and regulated through international law, and that it was important to distinguish the exploration and use of space resources from the exploitation of those resources.

195. The view was expressed that other multilateral frameworks could be relevant for the Working Group’s consideration, including the administration of the international airspace by the International Civil Aviation Organization, in particular the recognition by its member States, of a series of functional jurisdictions inside “flight information regions”; the administration of the international seabed by the International Seabed Authority; the frequency spectrum management regime of ITU; and the legal regime governing the Antarctic.

196. Some delegations expressed the view that space resource activities and related rules should be consistent with the legal framework of existing space law, in particular the Outer Space Treaty, and that although the Treaty did not specifically address space resources, it contained relevant principles, such as the free exploration and use, non-appropriation, protection of the outer space environment, and the observance of due regard for the corresponding interests of all other States parties, that should be

taken into account in developing an initial set of recommended principles on the exploration, exploitation and use of space resources.

197. The view was expressed that the set of primary recommended principles with respect to space resource activities should include provisions defining space resources as part of outer space. The delegation expressing that view also proposed that the Chair of the Working Group include that item on agenda of the next meeting of the Working Group.

198. The view was expressed that rules relating to space resources should facilitate enhanced information-sharing and international cooperation and that strengthening the exchange of information and coordination of activities among States was a prerequisite for the proper consideration of the obligation under article IX of the Outer Space Treaty to pay due regard to the corresponding interests of all other States parties and to avoid harmful interference with the activities of other States parties, and that the Treaty was an integral requirement for the implementation of the principle that the exploration and use of outer space, the Moon and other celestial bodies was to be carried out for the benefit of all countries.

199. The view was expressed that because space resource activities were a regulatory field of great importance, the international conference to be held in 2024 in accordance with the five-year workplan and methods of work of the Working Group (A/AC.105/1260, annex II, appendix), should have interpretation services in the six official languages of the United Nations.

200. Some delegations expressed the view that organizing the international conference foreseen in the five-year workplan and methods of work for the Working Group in close connection with Space Resources Week to take place in Luxembourg in 2024, would provide significant synergies and benefits, in accordance with the five-year workplan and methods of work for the Working Group (A/AC.105/1260, annex II, appendix), in particular the workplan set out for 2024, in subparagraph (d).

201. Some delegations expressed the view that it was important that the international conference foreseen for 2024 in the five-year workplan be held in conjunction with the sixty-third session of the Legal Subcommittee.

202. The Subcommittee requested the Chair and Vice-Chair of the Working Group to continue consultations, in the intersessional period, on the scope and topics to be addressed at the international conference on space resources under the five-year workplan of the Working Group and to consult with the Chair of the Committee and the secretariat regarding the scheduling of the sixty-sixth session of the Committee so as to enable the Working Group to meet during that session and benefit from interpretation services. In that regard, the Subcommittee recommended that the Committee also consider the matter at its sixty-sixth session.

X. 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

203. Pursuant to General Assembly resolution 77/121, 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.

204. The representatives of China, Belarus, France, India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Netherlands (Kingdom of the), the Philippines, the Republic of Korea, 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 Pakistan 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. 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.2/2023/CRP.39).

206. The Subcommittee heard a presentation entitled “Legal perspectives on orbital debris management”, by the observer for the National Space Society.

207. 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.

208. 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 24113:2019 (Space systems: space debris mitigation requirements) and/or ITU recommendation ITU-R S.1003 (Environmental protection of the geostationary-satellite orbit).

209. 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 legislative norms, instructions, standards and frameworks.

210. 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.

211. 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 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.

212. The view was expressed that countries which already had national regulations related to space debris mitigation and remediation were encouraged to provide the information on their space debris mitigation standards to the secretariat of the Office for Outer Space Affairs, to serve as lessons learned for other countries that were developing their national mechanism.

213. 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.

214. Some delegations expressed the view that the adoption of legally binding international instruments on the sustainable and safe conduct of space activities,

including space debris, was one of the necessary mechanisms for solving the problem of space debris.

215. The view was expressed that national policy and regulatory frameworks for space activities offered a key solution for limiting the generation of space debris.

216. The view was expressed that because 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.

217. Some delegations expressed the view that, because of the risk of falling space debris, launching States were encouraged to provide advanced, proper, prompt and adequate notification to other States, especially developing countries, located in the drop zone of falling space debris, as applicable, to ensure that they were sufficiently prepared to mitigate and respond to such incidents.

218. The view was expressed that, in low-Earth orbits, the problem of space debris could not be solved only on the basis of the voluntary application of relevant guidelines and that there was a need for additional measures, such as the removal of satellites from operational orbits, moving them to disposal orbits or effecting atmospheric re-entry.

219. The view was expressed that the issue of space debris mitigation measures was closely connected to the issue of space traffic management, and it was recommended that space traffic management measures be taken also with a view to taking measures for space debris mitigation.

220. The view was expressed that non-discriminatory and universally applicable transparency and confidence-building measures for space debris mitigation and remediation, including notifications of launch and post-mission disposal activities, were of great importance.

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

222. Some delegations expressed the view that, with regard to the decongestion of outer space through remediation, Member States were encouraged to adopt common but differentiated responsibilities, with the actors largely responsible for creating space debris being the most involved in space debris removal activities, and that those actors should make their scientific and legal expertise available to developing countries.

223. Some delegations expressed the view that interactive and mutual cooperation in sharing data, knowledge and experience played a key role in tackling the issue of space debris.

224. The view was expressed that it was important to have mutual cooperation in sharing accurate data, knowledge and experiences as well as expanding capabilities, and in developing technical resources, modified prediction models and sophisticated facilities, provided that such effective collaboration took place under the umbrella of the Committee.

225. The view was expressed that the Scientific and Technical Subcommittee provided several opportunities for further collaboration in sharing scientific and technical information with other nations under the auspices of the United Nations.

226. The view was expressed that there was a need to develop an internationally recognized definition of space debris to be used in international legal instruments.

227. 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, and to strengthen capacity for detecting and responding to falling space debris.

228. Some delegations expressed the view that intentionally or knowingly creating multiple pieces of debris was a key source of space debris, and States should refrain from such activities, bearing in mind General Assembly resolution 77/41 on destructive direct-ascent anti-satellite missile testing.

229. 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.

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

230. Pursuant to General Assembly resolution 77/121, 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.

231. The representatives of Belgium, Indonesia, Japan, the Philippines, 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 Pakistan on behalf of the Group of 77 and China. A statement was also made under the item by the observer for For All Moonkind. During the general exchange of views, statements relating to the item were made by representatives of other member States.

232. 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 Hungary, Japan and Slovakia” (A/AC.105/C.2/2023/CRP.30).

233. 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.

234. 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.

235. 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.

236. The view was expressed that non-legally binding United Nations instruments, complemented by internationally recognized practices and the harmonization of technical standards, constituted a new source of international space law.

237. The view was expressed that while it was important to further develop non-legally binding United Nations instruments, any possible contradictions between existing instruments and those newly adopted should be avoided. The delegation expressing that view was also of the view that the development of non-legally binding United Nations instruments should not override efforts to develop legally binding international treaties and agreements because a number of areas of space activities, such as space traffic management, the active removal of space debris and activities related to the extraction and use of space resources, could be carried out only on the basis of legally binding international agreements, which entailed international responsibility in the case of their non-implementation.

238. The view was expressed that the existing non-legally binding United Nations instruments on outer space of the Committee on the Peaceful Uses of Outer Space should continue to be effectively implemented by all space actors since they provided a valuable framework for the responsible conduct of outer space activities, in particular, 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 Committee, the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, the Safety Framework for Nuclear Power Source Applications in Outer Space, and the Principles Relating to Remote Sensing of the Earth from Outer Space.

239. Some delegations expressed the view that States should be further encouraged to implement the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee, as it was a recent and important non-legally binding United Nations instrument for the safe and sustainable conduct of outer space activities.

240. The Subcommittee noted the ongoing work being carried out under 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. The Subcommittee was informed of the upcoming work of the project, which would include the creation of an open access e-learning tool to improve understanding of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee and the holding of four virtual events on sections A–D of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee.

241. The view was expressed that there were legal, legislative and regulatory efforts that needed to be carried out on the part of States wishing to fully implement the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee. The delegation expressing that view was also of the view that the matter of the legal transposition of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee should be discussed under this item of the agenda, as well as under the item entitled "General exchange of views on potential legal models for activities in the exploration, exploitation and utilization of space resources".

242. 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 the Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space (Assembly resolution 1962 (XVIII)), 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.

243. 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.

244. Some delegations recalled, in connection with the agenda item, 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, 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. The delegations expressing that view were also of the view that particular attention should be given to the interest of developing countries and that the Committee should be strengthened in its role as the

main platform for the exchange of information in the field of international cooperation.

245. The view was expressed that it was important, in the context of the agenda item, to reiterate commitment to the peaceful uses and exploration of outer space as well as the principles established by the General Assembly, specifically, the principle of equal and non-discriminatory access to outer space on equitable terms for all States, regardless of their level of scientific, technical and economic development; the principle of the non-appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty over them, by means of use or occupation or by any other means; the principle of the non-militarization of outer space; and the principle that the exploration of outer space should be carried out with the sole purpose of improving living conditions and consolidating peace on the planet.

246. The view was expressed that, owing to the development of space exploration and, in particular, the renewed interest in the exploration of the Moon, there was a need to consider the development of a non-legally binding United Nations instrument that recognized and promoted measures to protect designated areas of the Moon and other celestial bodies of the solar system, because of their historical, cultural and environmental significance.

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

247. Pursuant to General Assembly resolution 77/121, 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.

248. The representatives of Argentina, Austria, China, France, Germany, Greece, Indonesia, Japan, Malaysia, Mexico, the Russian Federation, the United Kingdom and the United States made statements under agenda item 13. A statement was also made by the observer for the International Institute of Space Law. During the general exchange of views, statements relating to the item were made by representatives of other member States.

249. The Subcommittee heard the following presentations:

(a) “Interdisciplinary space law and policy education: the UNISPACE programme”, by the representative of Hungary;

(b) “Space traffic management: the European Union perspective”, by the observers for the European Union;

(c) “Strategies for cislunar space traffic management”, by the observer for SGAC.

250. 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, among others, the following: the provision of spacecraft collision avoidance, re-entry and fragmentation services through the development and operation of space surveillance and tracking capabilities; the sharing of space situational awareness information and basic spaceflight safety services to civil and commercial space operators; pre-launch notifications; reporting of annual launch plans; guidelines on on-orbit servicing which provided technical safety requirements; a handbook on on-orbit servicing; improvements to the registration of space objects; international coordination efforts through ITU to manage radio frequencies and geostationary orbits; the work of ISO on space traffic coordination and space debris mitigation; participation in the Consultative Committee for Space Data Systems; the publication of a mid- to long-term policy on efforts for rule-making on the use of Earth orbits; a space policy directive; a new industry-led space sustainability “mark”, which would show compliance with international sustainability best practices; a symposium focused on

active debris removal and on-orbit serving; a planned international conference on the topic of the management and sustainability of space activities; and the designation of space traffic management as a matter of strategic importance for the European Union.

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

252. The view was expressed that the high congestion of objects in outer space was reaching levels that jeopardized the sustainability of space activities and which could endanger human lives, and that it was therefore necessary to adopt measures that kept space operations safe, sustainable, peaceful and equitable.

253. The view was expressed that uncontrolled re-entries of space objects and their implications for aircraft in flight had already resulted in some near collisions and the temporary closure of European airspace, that the related risks included severe disruptions and unforeseen economic damage to airlines, as well as follow-on damage to entire economies, and that it was therefore important for there to be progress and clarification in the related aspects of governance in the area of air and space traffic management, including cooperation and interoperability to reduce safety risks.

254. The view was expressed that there was a need for specific rules for the efficient use of different orbital regions, namely, low Earth orbit, medium Earth orbit and geostationary orbit, and discussions on the limitations of their respective capacities; requirements for the protection of the space environment, for example, through space debris mitigation; and safety regulations for removal, re-entry and in-orbit operations, including methods for communication and collision avoidance.

255. The view was expressed that as space traffic management involved, many complex technical issues such as launch, on-orbit operation and re-entry, any space traffic management regime should take into full consideration the varying space capabilities and technical levels of different countries. The delegation expressing that view was also of the view that the imposition of excessive restrictions on the exploration and use of outer space would have a negative impact and should be avoided.

256. The view was expressed that further international cooperation and information-sharing were needed to gain broad consensus on the concepts and rules of space traffic management and that, in particular, countries with a wealth of practices should further strengthen transparency and information-sharing.

257. The view was expressed that the operationalization of a space traffic management framework required strong space situational awareness capacity, including the ability to monitor and predict collision risks and that therefore international cooperation, in particular the transfer of knowledge and know-how, in addition to data transparency and information from spacefaring countries, were required.

258. The view was expressed that delegations should continue to consider the proposal, first elaborated in 2016, to establish an information platform under the auspices of the United Nations that would allow for collecting, systematizing and providing for general use and analysis, information on objects and events in outer space (see A/AC.105/C.1/L.361).

259. The view was expressed that the initial challenge in space traffic management was establishing a clear and uniform definition of the term, and that it was essential to agree on a definition and have a common understanding of what constituted space traffic management before being able to consider the possible establishment of a space traffic management mechanism.

260. The view was expressed that, in terms of the rules applicable to space traffic management, at the current stage, a pragmatic approach based on the timely adoption

of guidelines, standards and transparency and confidence-building measures should be pursued, 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.

261. The view was expressed that the objective of a comprehensive and global space traffic management regime could be achieved only on the basis of multilateral consensus and, eventually, international law. The delegation expressing that view was also of the view that the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee (A/74/20, annex II) were a prime example of a non-legally binding mechanism to bridge the gap until such an international space traffic management regime was in place.

262. The view was expressed that the space traffic management rules needed to adapt to the trend of diversification of outer space activities, and that, in that connection, it was worth considering State responsibility for outer space activities and ensuring compliance with rules by non-State actors.

263. The view was expressed that there was an interconnection between plans to establish a system of space traffic management and the definition and delimitation of outer space, as there was a need to have clarity on where the air law and space law regimes were applicable.

264. The view was expressed that a full-fledged international treaty should be developed to regulate space traffic.

265. The view was expressed that space traffic management was cross-cutting in nature, with legal, regulatory and technical aspects, and consequently the topic should be addressed within both the Legal Subcommittee and the Scientific and Technical Subcommittee, which would allow for the comprehensive consideration of all issues at stake.

266. The view was expressed that the Scientific and Technical Subcommittee, as the primary forum on technical aspects of space activities, should be tasked with identifying whether the Space Debris Mitigation Guidelines of the Committee and the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee were sufficient to address space traffic management.

267. The view was expressed that continued international dialogue and coordination of efforts by States to provide space traffic coordination services could support broader efforts by the Committee on the Peaceful Uses of Outer Space to strengthen global governance of outer space activities

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

268. Pursuant to General Assembly resolution 77/121, 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.

269. The representatives of China, Colombia, India, Indonesia, Japan, Mexico and the Russian Federation made statements under agenda item 14. The representative of Pakistan 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.

270. The Subcommittee took note of the questionnaire on the application of international law to small-satellite activities (A/AC.105/1260, 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.2/2023/CRP.29) represented valuable contributions to discussions on legal issues with regard to small-satellite activities at the international level.

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

272. The Subcommittee reaffirmed the opportunities and benefits of small-satellite activities 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.

273. The Subcommittee noted that, in view of the growing trend of small-satellite activities and in order to guarantee the safety and sustainability of outer space activities, those activities 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).

274. The Subcommittee was informed of programmes of States and international organizations focused on the development and operation of small satellites, including 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.

275. Some delegations expressed the view that considering the essential role of space objects, irrespective of their size, for the socioeconomic development of States, 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. The delegations expressing that view reiterated the importance of ensuring guaranteed and equitable access to orbital positions of the geostationary orbit according to the needs of all countries, in particular developing countries, and 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.

276. Some delegations expressed the view that, despite the advantages of using small satellites, there were also growing concerns about impacts that small-satellite activities had on astronomical observations conducted by ground-based observatories, and on access to space because of the challenge of predicting and preventing collisions of space objects given the increased congestion of low-Earth orbit and of near-Earth space.

277. 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 reduce collision risks, international coordination and the disclosure of information and data on space situational awareness activities, and how best to register megaconstellations.

278. The view was expressed that although the Outer Space Treaty provided the core guidance for the conduct of small-satellite activities, it was important to further improve governance of those activities as well as consider that matter in coordination with agenda items of both subcommittees, including the long-term sustainability of outer space activities, space traffic management and space debris. The delegation

expressing that view was also of the view that cooperation with ITU and other relevant international organizations was important for effective governance of small-satellite activities.

279. The view was expressed that it was also important to implement, in national legislation, the internationally agreed recommendations pertaining to small-satellite activities. These recommendations included, inter alia, Guideline B.8 of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee, for the design and operation of space objects, regardless of their physical and operational characteristics, and Guideline A.5 for enhancing the practice of registering space objects, irrespective of their size.

280. 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, while being attentive not to be overly restrictive and discourage a new entrant from embarking on space ventures. The delegation expressing that view was also of the view that a multi-stakeholder consultation should be conducted to create such guidelines.

281. 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.

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-third session

282. Pursuant to General Assembly resolution 77/121, the Subcommittee considered agenda item 15, 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-third session”, as a regular item on the agenda.

283. The representative of the Russian Federation made a statement under agenda item 15. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

284. The Subcommittee heard the following presentations:

(a) “Memorandum of understanding: international cooperation on space safety standards”, by the observer for the International Association for the Advancement of Space Safety;

(b) “Clear and present danger: understanding risks to outstanding universal geoheritage values on Mars to guide proactive policy”, by the observer for SGAC.

285. The Subcommittee agreed that the following items would be proposed to the Committee for inclusion in the agenda of the Subcommittee at its sixty-third session, pending discussion and consideration of the Subcommittee’s provisional agenda by the Committee at its sixty-sixth session, in 2023:

Regular items

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.

Items under workplans

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

(Work for 2024 as reflected in the multi-year workplan of the Working Group on Legal Aspects of Space Resource Activities (A/AC.105/1260, para. 206, and the appendix to annex II))

Single issues/items for discussion

12. 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.

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

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

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

New items

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-fourth session.

286. The view was expressed that, of the agenda for the current session, item 4, entitled “Information on the activities of international intergovernmental and non-governmental organizations relating to space law”, item 7, entitled “National legislation relevant to the peaceful exploration and use of outer space”, and item 8, entitled “Capacity-building in space law”, were informational in nature and that such information could be posted on the website of the Office of Outer Space Affairs in the form of working papers by delegations and links to relevant information resources on the Internet.

287. The view was expressed that the Subcommittee should strictly adhere to the agreed agenda and intensify its consideration of priority issues that required legal regulation, primarily the topic of ensuring the long-term sustainability of space activities.

288. The view was expressed that the Subcommittee should include on its agenda a new item to initiate discussion on possible international legally binding instruments for the implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee.

289. The Subcommittee agreed that IISL and ECSL should again be invited to organize a symposium, to be held during the sixty-third session of the Subcommittee, pending discussion and consideration of the Subcommittees' provisional agenda by the Committee at its sixty-sixth session, in 2023, 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.

290. The Subcommittee noted that its sixty-third session had been tentatively scheduled to be held from 15 to 26 April 2024.

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 1034th meeting, on 20 March, the Legal Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, with Franziska Knur (Germany) as its new Chair.

2. The Working Group expressed its appreciation to the former Chair, Bernhard Schmidt-Tedd, for his able leadership of the Working Group.

3. From 20 to 29 March 2023, the Working Group held five meetings and also held informal consultations on the margins of the Subcommittee's session. 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) Establishing a dedicated web page of the Working Group containing documents relevant to its considerations;

(d) Recommendations concerning the submission of registration information on space objects forming part of a satellite constellation;

(e) Future topics to be considered by the Working Group.

4. The Working Group had before it the documents listed in paragraph […] of the report of the Subcommittee at its sixty-second session.

5. 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 as contained in appendix I to the present report. Any replies received would be made available in conference room papers.

6. 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.

7. The Working Group agreed that the secretariat should create a dedicated web page of the Working Group that provided access to the 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), as well as other relevant documents, for the consideration of the Working Group at the sixty-third session of the Subcommittee, in 2024.

8. The Working Group reaffirmed the importance of achieving the most complete registration of space objects, in line with article VIII 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, the Convention on Registration of Objects Launched into Outer Space and General Assembly resolution 1721 B (XVI), and 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).

9. 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. The Working Group also recalled that the background paper by the Secretariat entitled "Registration of large constellations and megaconstellations" (A/AC.105/C.2/L.322) had outlined challenges associated with the registration of a space object forming part of a satellite constellation, as well as steps taken by States of registry to accommodate the increased number of registrations, such as increasing the frequency of submissions, using a spreadsheet format, and other measures such as consulting the secretariat about how best to provide the information and refining those practices.

10. The Working Group noted with appreciation the launching of the "Registration project: supporting implementation of treaty obligations related to the registration of objects launched into outer space" to improve awareness of and promote the coherent application of the Registration Convention and noted that the expert event on the registration of objects launched into outer space was to be held in Vienna on 29 and 30 May 2023, at which participants could further discuss the enhancement of registration practices for space objects forming part of a satellite constellation.

11. In that regard, the Working Group decided on the following recommendations:

(a) When submitting registration information on a space object forming part of a satellite constellation, further consideration should be given to the implementation of the recommendations of the General Assembly contained in its resolution 62/101, entitled "Recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects";

(b) When submitting registration information on a space object forming part of a satellite constellation, consideration could be given to furnishing additional information, including, but not limited to:

(i) Information on the owner and operator, including any contact details, to the extent practicable and feasible;

(ii) Web links to official information, such as web links to the national space object registries;

(iii) Contact details of designated focal points for national space object registries;

(c) Without prejudice to the formal submission of registration information on a space object forming part of a satellite constellation, and in order to promote the availability of registration information during the period of time between the submission of registration information to the Secretary-General of the United Nations and its distribution by the Office for Outer Space Affairs, appropriate means to make available registration information concerning a space object forming part of a satellite constellation, including public websites linked to national space object registries, could be considered.

12. In order to facilitate the implementation of the above recommendations, the Office for Outer Space Affairs was requested to consider options, within existing resources, for improvements to ensure the efficient processing of registration information submissions on space objects forming part of a satellite constellation as part of its ongoing process of developing an online registration portal. The model registration form made available by the Office pursuant to paragraph 5 (a) of Assembly resolution 62/101 could serve for furnishing additional information on registered space objects, including those forming part of satellite constellations.

13. The view was expressed that registration information on a space object forming part of a satellite constellation should be provided in a timely, reliable and accurate manner.

14. The view was expressed that, in accordance with the territorial rights relating to the provision of services, including Internet services, satellite operators must obtain

a licence from the communications regulators of each country of operation in accordance with the requirements and conditions of that country. The delegation expressing that view also expressed the view that that topic should be addressed by the Working Group.

15. The view was expressed that ITU was the primary forum in the United Nations system for international coordination of matters related to space radio telecommunication services and that the Committee and its subsidiary bodies or this Working Group were not the appropriate forums to discuss such matters.

16. The Working Group noted the conference room paper on dedicated tools and practices for enhanced information-sharing under article XI of the Outer Space Treaty, submitted by Belgium, Czechia, Germany, Finland, Luxembourg and the Netherlands (Kingdom of the) (A/AC.105/C.2/2023/CRP.40).

17. The Working Group agreed that at the sixty-third session of the Subcommittee, it should commence the exchange views on the implementation of article XI of the Outer Space Treaty, in which States agreed to inform the Secretary-General of the United Nations, as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of activities in outer space, including on the Moon and other celestial bodies.

18. At its 1048th meeting, on 29 March 2023, the Working Group adopted the present report.

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 of the Working Group on the Definition and Delimitation of Outer Space

1. At its 1034th meeting, on 20 March 2023, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on the Definition and Delimitation of Outer Space, with Ian Grosner (Brazil) as its new Chair.

2. The Chair of the Working Group expressed his appreciation for the tireless efforts of the previous Chair, José Monserrat Filho (Brazil).

3. The Chair recalled that, pursuant to the agreement reached by the Subcommittee at its thirty-ninth session and endorsed by the Committee at its forty-third session, both in 2000, and pursuant to General Assembly resolution 75/92, the Working Group had been reconvened to consider only matters relating to the definition and delimitation of outer space.

4. The Chair also recalled that, at the sixtieth session of the Legal Subcommittee, in 2021, the Working Group had agreed that it would be reconvened only every second year (A/AC.105/1243, annex II, para. 6).

5. The Working Group had before it the documents listed in paragraph […] of the report of the Subcommittee on its sixty-second session.

6. The view was expressed that document A/AC.105/C.2/L.139 of 1983 contained an approach to the delimitation of airspace and outer space that remained relevant, that there was a need for a related international legal instrument of a binding nature and that there were clear interconnections between space traffic management and the definition and delimitation of outer space.

7. The view was expressed that information related to a practical case that would warrant the definition and delimitation of outer space would be presented at a future meeting of the Working Group.

8. The Working Group requested that the secretariat, on a biennial basis, in preparation for the meetings of the Working Group in the years when it was to be reconvened:

(a) Continue to invite States members of the Committee to submit information on national legislation or any national practices that may exist or were being developed that related directly or indirectly to the definition and/or delimitation of outer space and airspace;

(b) Continue to invite States members and permanent observers of the Committee to submit concrete and detailed proposals regarding the need to define and delimit outer space, or justifying the absence of such a need, or to provide the Working Group with specific cases of a practical nature relating to the definition and delimitation of outer space and the safety of aerospace operations. Such structured, consistent and grounded contributions would be considered by the Working Group at its future meetings;

(c) Continue to invite States Members of the United Nations and permanent observers of the Committee to provide their replies to the following questions:

(i) Is there a relationship between plans to establish a system of space traffic management and the definition and delimitation of outer space?

(ii) Is there a relationship between suborbital flights for scientific missions and/or for human transportation and the definition and delimitation of outer space?

(iii) Will the legal definition of suborbital flights for scientific missions and/or for human transportation be practically useful for States and other actors with regard to space activities?

(iv) How could suborbital flights for scientific missions and/or for human transportation be defined?

(v) Which legislation applies or could be applied to suborbital flights for scientific missions and/or for human transportation?

(vi) How will the legal definition of suborbital flights for scientific missions and/or for human transportation impact the progressive development of space law?

(vii) Please propose other questions to be considered in the framework of the legal definition of suborbital flights for scientific missions and/or for human transportation;

(d) Continue to invite States Members of the United Nations and permanent observers of the Committee to provide information relating to any practical case known to them that would warrant the definition and delimitation of outer space.

9. In that connection, the Chair noted that new documentation would not be prepared by the secretariat for the sixty-third session of the Legal Subcommittee, to be held in 2024, but would be prepared for the sixty-fourth session in 2025, and biennially thereafter.

10. On 29 March 2023, the Working Group considered and adopted the present report.