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Report of the Legal Subcommittee on its fifty-sixth session, held in Vienna from 27 March to 7 April 2017

Contents

	<i>Page</i>
I. Introduction	3
A. Opening of the session	3
B. Adoption of the agenda	3
C. Attendance	4
D. Symposium	5
E. Adoption of the report of the Legal Subcommittee	5
II. General exchange of views	5
III. Information on the activities of international intergovernmental and non-governmental organizations relating to space law	10
IV. Status and application of the five United Nations treaties on outer space	12
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	14
VI. National legislation relevant to the peaceful exploration and use of outer space	18
VII. Capacity-building in space law	19
VIII. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space	21
IX. General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee	22
X. General exchange of information on non-legally binding United Nations instruments on outer space	25
XI. General exchange of views on the legal aspects of space traffic management	26



XII.	General exchange of views on the application of international law to small-satellite activities	28
XIII.	General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources.	30
XIV.	Review of international mechanisms for cooperation in the peaceful exploration and use of outer space	33
XV.	Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-seventh session	35
 Annexes		
I.	Report of the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space	38
II.	Report of the Chair of the Working Group on the Definition and Delimitation of Outer Space	46
III.	Report of the Chair of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space	48

I. Introduction

A. Opening of the session

1. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-sixth session at the United Nations Office at Vienna from 27 March to 7 April 2017. From 27 to 29 March, the session was conducted under the acting chairmanship of Laura Jamschon Mac Garry (Argentina), who was elected Acting Chair at the 937th meeting of the Subcommittee. From 30 March to 7 April, the session was conducted under the chairmanship of Hellmut Lagos Koller (Chile).
2. The Subcommittee held 20 meetings.

B. Adoption of the agenda

3. At its 937th meeting, on 27 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. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
 10. General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee.
 11. General exchange of information on non-legally binding United Nations instruments on outer space.
 12. General exchange of views on the legal aspects of space traffic management.
 13. General exchange of views on the application of international law to small-satellite activities.
 14. General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources.
 15. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space.

16. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-seventh session.

C. Attendance

4. Representatives of the following 65 States members of the Committee attended the session: Albania, Algeria, Argentina, Australia, Austria, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Ecuador, El Salvador, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Libya, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, New Zealand, Nigeria, Oman, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela (Bolivarian Republic of) and Viet Nam.
5. At its 937th and 939th meetings, on 27 and 28 March, the Subcommittee decided to invite, at their request, observers for Cyprus, Denmark, Dominican Republic, Finland, Myanmar, Namibia, Nepal, Norway, Paraguay and Singapore 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. At its 937th meeting, on 27 March, the Subcommittee also decided to invite the observer for the European Union, at its request, to attend the session, in accordance with General Assembly resolution [65/276](#), entitled “Participation of the European Union in the work of the United Nations”, 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.
7. Observers for the Office for Disarmament Affairs of the Secretariat, the Food and Agriculture Organization of the United Nations, Economic Commission for Latin America and the Caribbean and the International Telecommunication Union (ITU) attended the session.
8. The session was attended by observers for the following intergovernmental organizations having permanent observer status with the Committee: Asia-Pacific Space Cooperation Organization (APSCO), Centre for Remote Sensing of the North African States (CRTEAN), European Space Agency (ESA), European Telecommunications Satellite Organization (EUTELSAT-IGO), International Organization of Space Communications (Intersputnik) and International Telecommunications Satellite Organization.
9. The session was also attended by observers for the following non-governmental organizations having permanent observer status with the Committee: African Association for Remote Sensing of the Environment (AARSE), European Space Policy Institute (ESPI), Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, International Association for the Advancement of Space Safety (IAASS), International Institute of Space Law (IISL), International Law Association (ILA), Secure World Foundation (SWF), Space Generation Advisory Council (SGAC) and World Space Week Association (WSWA).
10. A list of the representatives of States, United Nations entities and other international organizations attending the session is contained in document [A/AC.105/C.2/2017/INF/49](#).

D. Symposium

11. On 27 March, IISL and the European Centre for Space Law (ECSL) held a symposium on the theme “Legal models for exploration, exploitation and utilization of space resources 50 years after the adoption of the Outer Space Treaty”, co-chaired by Kai-Uwe Schrogl of IISL and Sergio Marchisio of ECSL. The symposium was opened with a statement of welcome by the Co-Chairs and the Acting Chair of the Subcommittee, and the Subcommittee subsequently heard the following presentations: “Current international legal framework applicability to space resource activities”, presented by Fabio Tronchetti; “Perspectives from the industry in relation to national regulation of space resource activities”, by Rick Tumlinson; “A Japanese new space perspective: lunar resource utilization and development of a legal perspective in Japan”, by Takeshi Hakamada; “Report on Title IV of the United States Commercial Space Launch Competitiveness Act”, by Joanne Gabrynowicz; “Considerations about Luxembourg’s draft law on the exploration and use of space resources”, by Mahulena Hofmann; “Developing countries and the exploitation of natural space resources”, by José Monserrat Filho; “National appropriation of outer space”, by Philip De Man and Stephan Hobe; and “The Hague Space Resources Governance Working Group”, by Tanja Masson-Zwaan. Concluding remarks were made by the Co-Chairs of the symposium and the Acting Chair of the Subcommittee. The presentations delivered during the symposium were made available on the website of the Office for Outer Space Affairs of the Secretariat (www.unoosa.org/oosa/en/ourwork/copuos/lsc/2017/symposium.html).

12. The Subcommittee noted with appreciation that in the course of the discussion that followed the presentations made in the symposium, several delegates had posed questions on the topics presented. The Subcommittee noted, in that regard, that the symposium constituted a valuable contribution to its work by generating a significant exchange of views that benefited the progress of the work of the session.

E. Adoption of the report of the Legal Subcommittee

13. At its 956th meeting, on 7 April, the Subcommittee adopted the present report and concluded the work of its fifty-sixth session.

II. General exchange of views

14. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Austria, Belgium, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Ecuador, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Mexico, Morocco, New Zealand, Pakistan, Poland, Republic of Korea, Russian Federation, South Africa, Sudan, Ukraine, United States, Venezuela (Bolivarian Republic of) and Viet Nam. Statements were made by the representative of Costa Rica on behalf of the Group of 77 and China and the representative of the Bolivarian Republic of Venezuela on behalf of the Group of Latin American and Caribbean States. The observer for the European Union made a statement on behalf of the European Union and its member States. The observer for Norway made a statement. The observers for APSCO and CRTEAN also made statements.

15. The Subcommittee heard the following presentations:

(a) “Planetary protection in the Emirates Mars Mission”, by the representative of the United Arab Emirates;

(b) “ESPI-GRULAC joint communication on a report of space activities in Latin American countries”, by the observer for ESPI.

16. The Subcommittee welcomed New Zealand as the newest State member of the Committee on the Peaceful Uses of Outer Space, bringing the membership of the

Committee to 84 States. The Subcommittee also welcomed the International Air Transport Association, a non-governmental organization, as the newest permanent observer of the Committee.

17. The Subcommittee noted the application of Bahrain for membership in the Committee, contained in conference room paper [A/AC.105/C.2/2017/CRP.3](#) which would be considered by the Committee at its sixtieth session, in June 2017. In that connection, the Subcommittee welcomed the fact that 22 States had become members of the Committee since 2000, increasing its membership from 62 to 84. The Subcommittee commended the Office for Outer Space Affairs for its leadership and tireless efforts in building capacity and disseminating information about the work of the Committee and its Subcommittees, which greatly contributed to the steady increase of the membership of the Committee.

18. The Subcommittee had before it information concerning the request of the European Science Foundation, represented by the European Space Sciences Committee, for observer status with the Committee ([A/AC.105/C.2/2017/CRP.8](#)).

19. The Subcommittee noted that 2017 would be a memorable year for the Committee and the space community, celebrating: (a) the sixtieth anniversary of the launch into outer space of the first artificial Earth satellite, Sputnik I, on 4 October 1957, which marked the advent of the space age; (b) the fiftieth anniversary of the entry into force 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; (c) the fiftieth anniversary of the Landsat programme; (d) the tenth anniversary of General Assembly resolution [62/101](#), on the recommendations on enhancing the practice of States and international intergovernmental organizations in registering space objects; (e) the tenth anniversary of the International Heliophysical Year; and (f) the tenth anniversary of the endorsement by the General Assembly of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space. The Subcommittee welcomed the opportunity presented by those anniversaries to consider the achievements of States with regard to the exploration and use of outer space and international space cooperation and to further consider the Subcommittee's historic mission as the unique intergovernmental multilateral negotiation forum for developing space law.

20. At the 937th meeting, on 27 March, the Acting Chair made a statement in which she highlighted the programme of work and organizational matters pertaining to the current session of the Subcommittee.

21. At the same meeting, the Director of the Office for Outer Space Affairs made a statement in which she reaffirmed the Office's commitment to discharging the Secretary-General's responsibilities under international space law, particularly in connection with transparency and confidence-building to ensure the safety, security and sustainability of outer space activities. She presented an overview of recent activities of the Office, highlighting efforts undertaken to prepare for the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space in 2018. She also drew the attention of the Subcommittee to the unfavourable financial situation of the Office, the reduction in the level of the Office's human resources and the ongoing efforts of the Office to improve its resource framework.

22. The Subcommittee noted with appreciation the information on the activities of the Office aimed at promoting understanding, acceptance and implementation of international space law.

23. The Subcommittee noted with appreciation the conference room paper presented by the Director of the Office, entitled "Gender equality and the empowerment of women: contribution by the Office for Outer Space Affairs" ([A/AC.105/C.2/2017/CRP.4](#)), which outlined the work and plans of the Office in the field of gender equality and the empowerment of women. The paper also provided information about the International Gender Champions initiative, which had

recently been extended to Vienna, and the Space for Women project, which was being prepared in the framework of thematic priority 7 (Capacity-building in the twenty-first century), for approval at the fiftieth anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space in 2018 (UNISPACE+50). The Subcommittee also noted with appreciation the information on the activities and measures being undertaken by the Office in line with the United Nations system-wide policy on gender equality and the empowerment of women and encouraged the Secretariat to continue its work in that field.

24. The Subcommittee welcomed with appreciation the designation of Scott Kelly, former astronaut of the National Aeronautics and Space Administration (NASA), as United Nations Champion for Space. His role would involve supporting the Office for Outer Space Affairs in promoting space as a tool for achieving the Sustainable Development Goals, and in raising awareness of the Office's activities, including activities related to UNISPACE+50.

25. The Subcommittee noted with appreciation the events held on the margins of the current session, namely a lunch-time event entitled "Open Universe initiative: legal aspects", co-organized by the Italian Space Agency (ASI) and the Brazilian Space Agency (AEB), and an evening event dedicated to the recent publication of the book *Seeing Our Planet Whole: A Cultural and Ethical View of Earth Observation*, organized by ESPI.

26. The Subcommittee welcomed the presentation by the delegation of Germany of the Chinese and Russian versions of volume I of the *Cologne Commentary on Space Law*.

27. The Subcommittee agreed that the existing international legal regime governing outer space provided a sound basis for undertaking space activities and that States should be encouraged to adhere to the existing legal regime in order to strengthen its effect.

28. Some delegations expressed the view that the rapid development of activities in space, the growing number of actors engaged in space activities and the increasing complexity of those activities underscored the need for States to continue working within the Subcommittee on an appropriate regulatory framework that encompassed those topical issues.

29. Some delegations expressed the view that the rapid development of space science and technology and new types of outer space activities gave rise to the need for new rules. In that connection, the Outer Space Treaty should be made adaptive and be further improved in response to the development of science and technology and actual needs of human exploration and use of outer space.

30. Some delegations expressed the view that the continuous development of space science and technology and the emergence of new types of outer space activities made it important to keep international space law up to date in order to strike a balance between scientific progress and benefits and interests of all States, irrespective of their degree of development.

31. Some delegations expressed the view that the heightened pace of activities in outer space and the increased participation of States, international organizations and the non-governmental sector required continued reflection by the Subcommittee in order to enable further strengthening of the legal regime on outer space, including with respect to the need to review and revise the five United Nations treaties on outer space.

32. The view was expressed that the Outer Space Treaty was the foundation of all other United Nations treaties and principles on outer space, contained comprehensive norms dealing with almost all aspects of space activities conducted by States and their juridical and physical persons and enjoyed the participation of a wide range of States. The delegation expressing that view was also of the view that the Treaty should be a basis for consideration of responses to modern challenges

emerging in connection with the intensive development of the forms and methods of space activities.

33. Some delegations expressed the view that measures that would limit access to space for nations with emerging space capabilities should be avoided and that States should refrain from further developing the international legal framework in a manner that set overly high standards or thresholds that could hinder the enhancement of capacity-building for developing countries.

34. The view was expressed that the attempts of some States to conduct their space activities while bypassing their obligations under the Outer Space Treaty were a matter of concern. The delegation expressing that view was also of the view that examples of such practice by States included (a) the legitimization of activities conducted by national non-governmental entities in the exploration of space resources that were in contradiction with the provisions of the Treaty; and (b) the establishment of a register or a flag of convenience for private commercial entities interested in pursuing the exploitation of space resources. In that connection, the Subcommittee should seek clarification of key terms, including “common heritage of mankind”, “common province of mankind”, “national appropriation of outer space” and “exploitation/exploration of space resources”.

35. The view was expressed that States increasingly relied on non-binding agreements in relation to space activities and that that practice was becoming consolidated because a large number of substantive concerns could not be satisfactorily addressed in the current institutional framework, nor settled by binding rules, at least in the short term. The delegation expressing that view was also of the view that non-legally binding agreements could respond to a broad range of regulatory concerns while still committing the participating States to act responsibly with regard to the values and the aspirations of the group that accepted them.

36. The view was expressed that equality among all nations, regardless of their level of space capabilities, could be maintained only if all space actors followed a rule-based approach to the peaceful use of outer space.

37. Some delegations reaffirmed the importance of preventing an arms race in outer space, noting the useful role that transparency and confidence-building measures could play in this regard and stressing that the preservation of outer space for the long term required that the international community ensure that no weapons would ever be placed there.

38. Some delegations expressed concern about an arms race in outer space and reiterated the view that attempts to seek military and strategic superiority in outer space would lead to future weaponization of outer space and endanger global peace and security. Those delegations also expressed the view that present gaps in the legal regime on outer space made necessary a more comprehensive regime, including a binding legal instrument, in order to prevent the militarization of outer space.

39. The view was expressed that the 24 ballistic missile launches in 2016 by the Democratic People’s Republic of Korea should be condemned, as they were in violation of Security Council resolutions [1718 \(2006\)](#), [1874 \(2009\)](#), [2087 \(2013\)](#), [2094 \(2013\)](#), [2270 \(2016\)](#) and [2321 \(2016\)](#). The delegation expressing that view was also of the view that such violations were also in contravention of the spirit and purpose of the Outer Space Treaty and that the accession of the Democratic People’s Republic of Korea to the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space and the Convention on International Liability for Damage Caused by Space Objects could not conceal that country’s true intention of acquiring the means of delivery for weapons of mass destruction.

40. Some delegations reaffirmed the commitment of their countries to the peaceful use and exploration of outer space and emphasized the following principles:

universal and equal access to outer space for all countries without discrimination, regardless of their level of scientific, technical and economic development, and the equitable and rational use of outer space for the benefit of all humankind; the non-appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty, use, occupation or any other means; the non-militarization of outer space; the prevention of the installation of weapons of any kind in outer space; the strict use of outer space, as the common heritage of humankind, for peaceful purposes and for the improvement of living conditions and peace among the peoples that inhabit our planet; and international cooperation in the development of space activities.

41. The view was expressed that all space activities should be conducted in compliance with three major principles: freedom of access to space for peaceful uses; the preservation of the security and integrity of satellites in orbit; and the consideration of interests of defence and security of States in outer space.

42. The view was expressed that States should foster the development of space capabilities and facilitate the exchange of expertise, science, knowledge, technology and experience, while observing non-intervention into both the space programmes of other States and their use of space-related technology.

43. Some delegations expressed the view that, over the years, the Committee and its Subcommittees had excelled at delivering practical and useful guidance to the international community on the application of the legal principles enshrined in the core treaties, and that the guidance had taken the form of resolutions, frameworks, guidelines and the wealth of informative materials made available in print or online.

44. Some delegations expressed the view that it was important to ensure the continuous role of the Subcommittee as the main platform for the interpretation, application and development of outer space rules and as a forum for discussing and finding solutions for new legal issues arising from the activities of peaceful uses of outer space so that the legal regime for outer space would be continuously improved, providing a robust legal guarantee for long-term development of peaceful uses of outer space.

45. The view was expressed that the Subcommittee remained the unique international forum for the development and adoption of regulatory instruments on space activities and that it was important to seek a significant increase of its effectiveness and to update its agenda. The delegation expressing that view was also of the view that, in recent years, there had been an alarming tendency to consider the matters belonging to the Subcommittee's mandate within side forums with uncertain competence and a limited number of States.

46. Some delegations expressed the view that coordination between the Legal Subcommittee and the Scientific and Technical Subcommittee was important and that interaction between the two Subcommittees should be strengthened in order to synchronize the progressive development of space law with major scientific and technical advances, among other things. The delegations expressing that view were also of the view that the coordination and synergies between the two Subcommittees would also promote understanding, acceptance and an appropriate implementation of the existing United Nations legal instruments.

47. The view was expressed that some of the items on the agenda of the Subcommittee were connected with those of the Scientific and Technical Subcommittee and that, in that regard, a more transversal approach of the themes within the Committee and its Subcommittees should be encouraged.

48. Some delegations expressed the view that the Legal Subcommittee should follow up, from the legal perspective, the work of the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee.

49. Some delegations expressed the view that the mechanism for revision set out in the guidelines would provide the opportunity for the Subcommittee to address the legal aspects of the guidelines.

50. The view was expressed that space resources were accessible to only a very limited number of States and to a handful of enterprises within those States. In that connection, the delegation expressing that view was also of the view that it would be important to assess the impact of a “first come, first served” doctrine on the global economy, with the creation of a de facto monopoly in complete contradiction with the letter and the spirit of the United Nations treaties and resolutions.

51. The view was expressed that there was a need to care for the outer space environment in the same way there was a need to care for the planet, and to avoid creating an artificial divide between this planet and the space around it, so that future generations too could enjoy the benefits of outer space.

52. The view was expressed that there was great promise in private investment in path-breaking new activities to advance the understanding of the solar system and to enable new space applications that benefited all of humanity, and that it was difficult, if not impossible, to foresee the technological innovations and downstream applications that might arise from efforts to push the limits of exploration. The delegation expressing that view was also of the view that private sector investment had already yielded remarkable results in the advancement of the development of reusable, vertical launch and landing systems; the deployment of increasingly large constellations of small satellites; preparations for sending robotic missions, humans and habitats to low Earth or cislunar orbit in the very near term; and robotic spacecraft to Mars and smaller bodies.

53. Some delegations expressed the view that in the light of current developments in space activities, specifically regarding commercialization, privatization and space safety, the application of the existing treaties on outer space should be constantly analysed and reviewed to ensure the relevance of the current space law regime to the level of development in space activities.

54. The Subcommittee expressed its appreciation for the excellent work, including the preparation of documentation, done by the Secretariat for the current session of the Subcommittee.

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

55. Pursuant to General Assembly resolution 71/90, 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.

56. The representatives of Belgium and Pakistan made statements under agenda item 4. Statements were also made under agenda item 4 by the observers for ECSL, ESA, Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, ILA, Intersputnik, SGAC, SWF and WSWA.

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

(a) Note by the Secretariat containing information on activities relating to space law received from the International Law Association and Space Generation Advisory Council (A/AC.105/C.2/110);

(b) Note by the Secretariat containing information on activities relating to space law received from the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation (A/AC.105/C.2/110/Add.1);

(c) Conference room paper containing information on activities relating to space law received from ECSL ([A/AC.105/C.2/2017/CRP.20](#)).

58. The Subcommittee noted with satisfaction that the activities of international intergovernmental and non-governmental organizations relating to space law had continued to contribute significantly to the study, interpretation and development of space law and that those organizations had continued to organize conferences and symposiums, prepare publications and reports and organize training seminars for practitioners and students, all of which were intended to broaden and advance knowledge of space law.

59. The Subcommittee noted that international intergovernmental organizations had an important role to play in the development, strengthening, dissemination and furtherance of understanding of international space law.

60. The Subcommittee welcomed the information provided by the observer for ECSL (see [A/AC.105/C.2/2017/CRP.20](#)), including information on the triennial general meeting of ECSL members, held on 18 March 2016; the European rounds of the Manfred Lachs Moot Court, held in Glasgow, United Kingdom, from 27 to 29 April 2016; the twenty-fifth edition of the ECSL Summer Course on Space Law and Policy, held in Warsaw from 29 August to 10 September 2016; the second edition of the Young Lawyers' Symposium, held in Paris, on 18 March 2017; the Tech, Business and Regulatory Industry Workshop, to be held in Noordwijk, Netherlands, on 13 April 2017; and the Arctic Space and Technology Summit, to be held in Helsinki on 9 May 2017.

61. The Subcommittee welcomed the information provided by the observer for ESA, including information on the two-day ESA Council meeting at the ministerial level, held in Lucerne, Switzerland, on 1 and 2 December 2016, on the recognition by its member States of the role of ESA as a permanent observer to the Committee and on the advice by ESA to its member States in the establishment and implementation of national space legislation.

62. The Subcommittee welcomed the information provided by the observer for the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation (see [A/AC.105/C.2/110/Add.1](#)), including information on the summer course on life on the Moon, held in Madrid from 4 to 8 August 2016; the Ibero-American conference on aeronautic and space law and commercial aviation entitled "On the eve of the fiftieth anniversary of the Outer Space Treaty", held in Madrid in October 2016; and the first international spatial and aeronautical congress of Paraguay, to be held in Asunción on 26 and 27 April 2017.

63. The Subcommittee welcomed the information provided by the observer for IISL, including information on the fifty-ninth IISL Colloquium, held in Guadalajara, Mexico, from 26 to 30 September 2016; the eleventh Eilene M. Galloway Symposium on Critical Issues in Space Law, held in Washington, D.C., on 7 December 2016; and the twenty-sixth edition of the Manfred Lachs Space Law Moot Court Competition, to be held in Adelaide, Australia, in 2017.

64. The Subcommittee welcomed the information provided by the observer for ILA on its activities relating to space law (see [A/AC.105/C.2/110](#)), including information on the four central topics and two questions addressed by ILA in its report on the seventy-seventh conference of ILA, held in Johannesburg, South Africa, in August 2016, and the preparation for the upcoming seventy-eighth conference of ILA, to be held in Sydney, Australia, in August 2018.

65. The Subcommittee welcomed the information provided by the observer for Intersputnik, including information on a forthcoming May 2017 special issue of a scientific and technical Russian journal dedicated to space law and on a round-table discussion on the issue of establishing and expanding national satellite telecommunications systems, to be held in Prague in June 2017.

66. The Subcommittee welcomed the information provided by the observer for the Space Generation Advisory Council on its activities relating to space law (see [A/AC.105/C.2/110](#)), and took note in that regard of the information on the second European Space Generation Workshop, held in Paris on 24 and 25 March 2017, and the sixth annual Space Generation Fusion Forum, to be held in Colorado Springs, United States, on 2 and 3 April 2017.

67. The Subcommittee welcomed the information provided by the observer for SWF, including information on an event recognizing the accomplishments of the Committee on the Peaceful Uses of Outer Space in agreeing on the first set of guidelines for the long-term sustainability of outer space activities, held in Washington, D.C., on 21 October 2016, and an event on the fiftieth anniversary of the Outer Space Treaty, held at Georgetown Law School in Washington, D.C., on 27 January 2017.

68. The Subcommittee welcomed the information provided by the observer for WSWA, including on the 2017 World Space Week theme “Exploring New Worlds in Space”, to be held from 4 to 10 October 2017 and on case studies of WSWA activities to support human development using the UNISPACE+50 road-map pillars.

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

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

70. Pursuant to General Assembly resolution [71/90](#), 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.

71. The representatives of Canada and Germany made statements under agenda item 5. Statements were made by the representative of Costa Rica on behalf of the Group of 77 and China and the representative of the Bolivarian Republic of Venezuela on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

72. At its 937th meeting, on 27 March, the Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space under the chairmanship of Bernhard Schmidt-Tedd (Germany).

73. At its 954th meeting, on 6 April, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex I to the present report.

74. The Subcommittee had before it the following:

(a) Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: the Committee on the Peaceful Uses of Outer Space and global governance of outer space activities ([A/AC.105/1137](#));

(b) Draft declaration on the fiftieth anniversary 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 ([A/AC.105/C.2/L.300](#));

(c) Conference room paper entitled “UNISPACE+50: status of preparations” ([A/AC.105/C.2/2017/CRP.5](#));

(d) Note by the Secretariat containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the

Five United Nations Treaties on Outer Space, received from Austria and Germany ([A/AC.105/C.2/2017/CRP.6](#));

(e) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2017 ([A/AC.105/C.2/2017/CRP.7](#));

(f) Proposal submitted by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space entitled “UNISPACE+50 thematic priority 2, entitled ‘Legal regime of outer space and global space governance: current and future perspectives’: draft working method” ([A/AC.105/C.2/2017/CRP.14](#));

(g) Note by the Secretariat containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, received from Greece ([A/AC.105/C.2/2017/CRP.17](#));

(h) Conference room paper containing the draft General Assembly resolution on the fiftieth anniversary of the Outer Space Treaty ([A/AC.105/C.2/2017/CRP.28](#));

(i) Conference room paper containing the draft declaration on the fiftieth anniversary 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 ([A/AC.105/C.2/2017/CRP.32](#)).

75. The Subcommittee noted that, as at 1 January 2017, the status of the five United Nations treaties on outer space was as follows:

(a) The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty), had 105 States parties and had been signed by 25 additional States;

(b) The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (Rescue Agreement) had 95 States parties and had been signed by 24 additional States; two international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Agreement;

(c) The Convention on International Liability for Damage Caused by Space Objects (Liability Convention) had 94 States parties and had been signed by 20 additional States; three international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Convention;

(d) The Convention on Registration of Objects Launched into Outer Space (Registration Convention) had 63 States parties and had been signed by 4 additional States; three international intergovernmental organizations had declared their acceptance of the rights and obligations established under the Convention;

(e) The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (Moon Agreement) had 17 States parties and had been signed by 4 additional States.

76. The Subcommittee commended the Secretariat for updating, on an annual basis, the status of international agreements relating to activities in outer space; the current update had been made available to the Subcommittee in conference room paper [A/AC.105/C.2/2017/CRP.7](#).

77. The Subcommittee noted that during the upcoming seventy-second session of the General Assembly, the First and Fourth Committees of the Assembly would hold a joint half-day panel discussion on the topic of possible challenges to space security and sustainability, which would also serve to highlight the contribution of those Committees to UNISPACE+50.

78. Some delegations expressed the view that the United Nations treaties on outer space formed the primary legal framework for creating a safe and secure atmosphere

for the development of outer space activities and enhancing the effectiveness of the Legal Subcommittee as the main law-making body. Those delegations welcomed the growing adherence to the United Nations treaties on outer space and encouraged those States that had not yet become parties to the treaties to consider doing so.

79. Some delegations expressed the view that the discussions on UNISPACE+50 thematic priority 2, “Legal regime of outer space and global space governance: current and future perspectives”, provided an opportunity to review, update and strengthen the five United Nations treaties on outer space with the aim of increasing the number of States parties to the treaties and thereby strengthening the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee.

80. Some delegations expressed the view that the five United Nations treaties on outer space formed the cornerstone of international space law and that current challenges posed by the diversification of space actors and the increasing privatization and commercialization of activities in outer space should be taken into account during the UNISPACE+50 discussions under thematic priority 2.

81. Some delegations expressed the view that space science and technology applications had evolved considerably and that that continuing trend called for identifying areas to be addressed through instruments to supplement those already in force, thereby ensuring that the core principles already agreed upon remained intact in a binding way.

82. The view was expressed that there was a complementary relationship between the United Nations treaties on outer space, which were the foundation of international space law, and the more flexible, non-legally binding instruments such as resolutions, guidelines and principles, which were more appropriate for prompt reaction to current developments in outer space activities.

83. The view was expressed that the universal adherence to the Outer Space Treaty, the Rescue Agreement, Liability Convention and Registration Convention and their underlying principles was important at the present time when the international community was developing new norms of behaviour to govern space activities. That delegation was of the view that universal adherence to those treaties would allow States to move forward together with a common legal foundation.

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

84. Pursuant to General Assembly resolution [71/90](#), the Subcommittee considered, as a regular item on its agenda, agenda item 6, entitled:

“Matters relating to:

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

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

85. The representatives of Australia, Canada, Chile, Ecuador, France, Indonesia, Mexico, Pakistan, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 6. Statements were made by the representative of Costa Rica on behalf of the Group of 77 and China and by the representative of Argentina on behalf of the

Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

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

87. The Working Group held 4 meetings. The Subcommittee, at its 953rd meeting, on 6 April, endorsed the report of the Chair of the Working Group, contained in annex II to the present report.

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

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

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

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

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

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

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

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

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

(i) Conference room paper entitled “Contribution of Indonesia to the fifty-sixth session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space” ([A/AC.105/C.2/2017/CRP.31](#)).

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

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

91. Some delegations expressed the view that it was necessary to define and delimit outer space, given that there was a serious legal gap in that regard in both space law and air law. The delegations expressing that view considered that

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

92. Some delegations expressed the view that the delimitation of outer space would make it possible to ensure the practical application of the principle of freedom of exploration and use of outer space for peaceful purposes on the basis of non-discrimination and equality between States.

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

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

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

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

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

98. The view was expressed that the definition and delimitation of outer space to be made by States in the future should not prejudice national security and the sovereignty of States and that regulations regarding the definition and delimitation

of space should also take into account the regulations regarding airspace and should be based on the protection of nations' sovereignty and the promotion of the exploration and use of space for peaceful purposes.

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

100. Some delegations expressed the view that States should continue to operate in the current framework, which functioned well, until such time as there was a demonstrated need and a practical basis for developing a definition or delimitation of outer space. The delegations expressing that view were also of the view that the current framework had presented no practical difficulties and that therefore, at present, any attempt to define and delimit outer space would be a theoretical exercise that could unintentionally complicate existing activities and might not be adaptable to continuing technological developments.

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

102. Some delegations expressed the view that progress in the definition and delimitation of outer space could be achieved with the exchange of views with ICAO.

103. Some delegations expressed the view that the Subcommittee should reinvigorate its efforts to reach consensus on the definition and delimitation of outer space.

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

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

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

107. The view was expressed that the geostationary orbit was a limited natural resource with sui generis characteristics that risked saturation and that equitable access to it should therefore be guaranteed for all States, taking into account in

particular the needs and interests of developing countries and the geographical position of certain countries.

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

109. The view was expressed that the current regime for the exploitation and utilization of the geostationary orbit provided opportunities mostly for countries with greater financial and technical capabilities, and, in that connection, there was a need to take anticipatory measures to address the potential dominance of such countries in the utilization of space in order to address the needs of developing countries and of countries in particular geographical areas, such as those in equatorial regions.

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

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

112. Some delegations expressed the view that, in order to develop adequate mechanisms to ensure the sustainability of the geostationary orbit, it was necessary to keep that issue on the agenda of the Subcommittee and to explore it further, through the creation of appropriate working groups and legal and technical intergovernmental panels, as necessary.

113. The view was expressed that all States benefit from many current uses of the geostationary orbit, including through free provision of positioning system services, information from meteorological and environmental satellites, and satellite-aided search and rescue programmes.

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

114. Pursuant to General Assembly resolution [71/90](#), 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.

115. The representatives of Japan, Mexico and Viet Nam made statements under agenda item 7. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

116. The Subcommittee had before it the following:

(a) Conference room paper containing information submitted by Thailand and Turkey on their national space legislation ([A/AC.105/C.2/2017/CRP.13](#));

(b) Conference room paper containing information submitted by Greece on the promotion of national space legislation ([A/AC.105/C.2/2017/CRP.18](#)).

117. The Subcommittee heard the following presentations:

(a) “Leveraging private sector input for public sector regulations: an overview of United States commercial space law and policy developments”, by the representative of the United States;

(b) “United Arab Emirates regulatory approach”, by the representative of the United Arab Emirates;

(c) “Current status of Japan’s space policy and development of legal frameworks”, by the representative of Japan.

118. The Subcommittee noted various activities of member States in reviewing, strengthening, developing or drafting their national space laws and policies, as well as in reforming or establishing the governance of national space activities. In that connection, the Subcommittee also noted that those activities were aimed at the improvement of the management and regulation of space activities; the reorganization of national space agencies; an increase in competitiveness of governmental and non-governmental organizations in their space activities; greater involvement of academia in policy formulation; better responses to challenges posed by the development of space activities, in particular those relating to the management of the space environment; and better implementation of international obligations.

119. The Subcommittee reiterated that it was important to take into account the increased level of commercial and private activities in outer space in the context of developing a national space-related regulatory framework, in particular with respect to the responsibilities of States regarding the authorization and supervision of non-governmental entities conducting space activities.

120. The Subcommittee noted that the development and reformulation of national space policies and their implementation through national space regulation was increasingly aimed at addressing issues raised by the rising number of non-governmental entities conducting space activities.

121. The view was expressed that constant updates of national law were necessary to keep up with the emerging development of space activities, given the speed of that development.

122. The Subcommittee agreed that the discussions under this item were important and that they enabled States to gain an understanding of existing national regulatory frameworks, share experiences on national practices and exchange information on national legal frameworks.

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

VII. Capacity-building in space law

124. Pursuant to General Assembly resolution [71/90](#), the Subcommittee considered agenda item 8, entitled “Capacity-building in space law”, as a regular item on its agenda.

125. The representatives of Costa Rica, France, Germany, Greece, Indonesia, Japan, Pakistan, South Africa and the United Arab Emirates made statements under agenda item 8. The representative of Costa Rica made a statement on behalf of the Group of 77 and China, and the representative of Argentina made a statement on behalf of

the Group of Latin American and Caribbean States. The observer for SWF also made a statement under the item. During the general exchange of views, further statements relating to the item were made by representatives of other member States.

126. The Subcommittee had before it the following:

(a) Report on the United Nations Workshop on Space Law on the theme “Contribution of space law and policy to space governance and space security in the twenty-first century” held in Vienna from 5 to 8 September 2016 ([A/AC.105/1131](#));

(b) Conference room paper containing information submitted by Austria, Japan, Thailand and SGAC on actions taken and initiatives to build capacity in space law ([A/AC.105/C.2/2017/CRP.12](#)).

127. The Subcommittee heard a presentation made by the observer for SGAC entitled “The Space Generation Advisory Council: Views and Activities of the Space Law and Policy Project Group”.

128. The Subcommittee agreed that capacity-building, training, dissemination of information 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, especially in developing countries, and to increasing knowledge of the legal framework within which space activities were carried out. It was emphasized that the Subcommittee had an important role to play in that regard.

129. The Subcommittee agreed that capacity-building played a major role in the UNISPACE+50 process, and could be an opportunity to consider space programmes in terms of capacity-building and knowledge enhancement.

130. 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 young professionals in regional and international meetings 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.

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

132. The Subcommittee noted with appreciation the tenth United Nations Workshop on Space Law, on the theme “Contribution of space law and policy to space governance and space security in the twenty-first century”, held at the United Nations Office at Vienna from 5 to 8 September 2016. The Subcommittee also noted with appreciation in that regard that the Workshop provided an opportunity for representatives of permanent missions in Vienna to participate in a capacity-building event.

133. Some delegations expressed the view that the United Nations played a central role in fostering international cooperation and that it was therefore necessary to strengthen the capacity of the Office for Outer Space Affairs with regard to capacity-building, training and the delivery of legal technical assistance to support institutional and interregional capacity in the area of space law.

134. The view was expressed that a capacity-building initiative was under way in that State, which combined activities of industry, academia and agencies in an effort to propose new regulatory, contractual or cooperative legal instruments for the development of future space systems and the promotion of the new space actors. The same delegation also expressed the view that a new web-based tool was being developed by the Space Institute for Research on Innovative Uses of Satellites (SIRIUS) of the University of Toulouse for mapping, cataloguing and tracking national legislation on outer space of all States and that that tool, available free of charge to all (available at <http://spacelegaltech.com>), would contribute to greater understanding of national regulatory regimes on outer space.

135. The Subcommittee noted that the Office for Outer Space Affairs had updated the directory of education opportunities in space law ([A/AC.105/C.2/2017/CRP.10](#)), including with information on available fellowships and scholarships, and agreed that the Office should continue to update this directory. In that connection, the Subcommittee invited member States to encourage contributions at the national level for the future updating of the directory.

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

VIII. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

137. Pursuant to General Assembly resolution [71/90](#), the Subcommittee considered agenda item 9, entitled “Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space”, as a single issue/item for discussion.

138. The representatives of France, Indonesia, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 9. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

139. The Subcommittee recalled that the Safety Framework for Nuclear Power Source Applications in Outer Space ([A/AC.105/934](#)), adopted by the Scientific and Technical Subcommittee at its forty-sixth session, in 2009, and endorsed by the Committee at its fifty-second session, also in 2009, had considerably advanced international cooperation in ensuring the safe use of nuclear power sources in outer space and had facilitated the development of international space law.

140. The Legal Subcommittee noted the successful completion of the multi-year workplan of the Working Group on the Use of Nuclear Power Sources in Outer Space of the Scientific and Technical Subcommittee, for the period 2014-2017 ([A/AC.105/1065](#), annex II, para. 9), and noted with satisfaction the endorsement by the Scientific and Technical Subcommittee of the new multi-year workplan of the Working Group for the period 2017-2021 ([A/AC.105/1138](#), para. 237, and annex II, para. 9).

141. The Legal Subcommittee took note of the fact that the Scientific and Technical Subcommittee agreed that, in order to encourage the sharing of best practices and substantiate national commitments to safety, it was important to continue to share experiences in implementing the guidance contained in the Safety Framework and in satisfying the intent of the Principles, and for Member States and intergovernmental organizations with experience with missions using nuclear power sources to engage in discussions about advances in knowledge and practices and their potential for enhancing the technical content and scope of the Principles (see [A/AC.105/1138](#), para. 227).

142. Some delegations expressed the view that the Principles should be reviewed with a view to developing binding international standards.

143. Some delegations expressed the view that the Principles should be revised in view of the following: (a) such revision was envisaged in the Principles; (b) developments such as ion, electric or direct nuclear propulsion and other technological advances should be taken into account; and (c) reference frameworks for radiological protection had evolved.

144. The view was expressed that the focused work of the Working Group under its completed workplan has demonstrated that the Safety Framework provided a comprehensive and sufficient foundation of guidance for Member States and international intergovernmental space organizations to develop and operate their own space applications using nuclear power sources in a safe manner.

145. Some delegations expressed the view that it was necessary to study in depth the use of satellite platforms with nuclear power sources and to analyse related practices and regulations. Those delegations were also of the view that more attention should be paid to the legal issues associated with the use of such platforms in Earth orbits, including the geostationary orbit, in the light of potential accidental re-entry of nuclear power sources into the Earth's atmosphere, reported failures and collisions, which posed a high risk to humanity, the Earth's biosphere and the environment.

146. Some delegations expressed the view that the use of nuclear power sources in outer space should be allowed only in the case of deep space missions and only when other power sources had been considered and rejected.

147. Some delegations expressed the view that research should be conducted to find alternative power sources to replace the use of nuclear power sources in outer space.

148. The view was expressed that the use of applications using nuclear power sources should be in conformity with international law, the Charter of the United Nations and United Nations treaties and principles on outer space.

149. The view was expressed that it was important to monitor the effectiveness of the implementation of the Safety Framework.

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

150. Pursuant to General Assembly resolution [71/90](#), the Subcommittee considered agenda item 10, entitled "General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee", as a single issue/item for discussion.

151. The representatives of Belgium, Germany, Indonesia, Japan, Mexico, Pakistan, the Russian Federation, Venezuela (Bolivarian Republic of) and Viet Nam made statements under agenda item 10. The representative of Argentina made a statement on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

152. The Subcommittee had before it a conference room paper entitled "Contribution of Indonesia to the fifty-sixth session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space" ([A/AC.105/C.2/2017/CRP.31](#)).

153. The Subcommittee noted with satisfaction 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 how to mitigate the problem of space debris.

154. The Subcommittee noted with satisfaction that some States were implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee and/or the Space Debris Mitigation Guidelines of the Inter-Agency Space Debris Coordination Committee (IADC) and that other States had developed their own space debris mitigation standards based on those guidelines.

155. The Subcommittee also noted that some States were using the space debris mitigation guidelines, the European Code of Conduct for Space Debris Mitigation, International Organization for Standardization standard 24113:2011 (Space systems: space debris mitigation requirements), and ITU recommendation ITU-R S.1003 (“Environmental protection of the geostationary-satellite orbit”) as references in their regulatory frameworks for national space activities.

156. The Subcommittee 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.

157. The Subcommittee noted that some States had strengthened their national mechanisms governing space debris mitigation through the nomination of governmental supervisory authorities, the involvement of academia and industry and the development of new legislative norms, instructions, standards and frameworks.

158. 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. In this context, the Subcommittee expressed its appreciation to the Secretariat for maintaining the compendium on a dedicated web page.

159. Some delegations expressed the view that it was necessary to review and update the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, taking into account the current practice of States and international organizations with expertise in this area and the guidelines for the long-term sustainability of outer space activities developed by the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee, in particular guidelines 13, 21 and 28.

160. Some delegations expressed the view that the Subcommittee should increase its interaction with the Scientific and Technical Subcommittee, with a view to promoting the development of binding international standards to address issues relating to space debris, bearing in mind that one of the main responsibilities of the United Nations in the legal sphere is to promote the progressive development of international law and its regulation, in this case regarding outer space.

161. Some delegations expressed the view that, in line with the recommendations of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities, the revised Space Debris Mitigation Guidelines should contain a guideline on the dissemination of information on national technical and legal measures for the detection, prevention, reduction, deorbitation and mitigation of space debris from present and past space missions.

162. The view was expressed that it was important to establish transparency and confidence-building measures in outer space activities in light of the growing use of outer space by governmental and non-governmental entities, taking into account that space debris would affect the sustainable use of outer space, constituted a hazard to

outer space activities and could limit the effective deployment and utilization of associated outer space capabilities.

163. Some delegations expressed the view that the States that were largely responsible for creating space debris should be most involved in space debris removal activities and that those States should make available their scientific and legal expertise to countries with a lower level of space development in order to ensure that necessary measures were implemented with regard to design of spacecraft and its end-of-life disposal.

164. Some delegations expressed the view that the issue of space debris should not be treated in a way that limited access to outer space or impaired the development of space capabilities by the least developed or developing countries, and that it was necessary to take into account the principle of proportional responsibility for space debris removal.

165. The view was expressed that in addressing space debris issues, States should act based on their common but differentiated responsibilities and their respective capabilities.

166. Some delegations expressed the view that the scope of the agenda item should be expanded to elaborate legal issues relating to space debris and space debris removal, such as jurisdiction over the space objects to be declared as space debris, legal status of space debris fragments and the legal definition of space debris.

167. The view was expressed that the Subcommittee should develop an international legal framework to address legal issues associated with active debris removal and could start by developing a list of pertinent questions, including the following:

(a) Should a legal definition be developed allowing to distinguish space debris from space objects?

(b) Would the launching State relinquish its ownership rights over a space object declared as space debris, while retaining responsibility for any damage caused by its incorrect disposal?

(c) Could space actors use objects declared as space debris at their discretion?

(d) How could the protection of technology be ensured?

(e) What should be done in cases in which data are not sufficient to determine the ownership of a space object?

168. Some delegations expressed the view that the Subcommittee should further develop the international legal framework by elaborating principles of liability and responsibility in relation to space debris, including on legal aspects of matters relating to limiting creation of space debris or consequences of damage caused by space debris, as the existing international legal mechanisms are not adapted to the current situation.

169. The view was expressed that, in relation to space debris, the notion of “fault” used in the Liability Convention should be replaced with a more objective notion based on internationally accepted standards and that such legal terms could be discussed either under this agenda item or the item on the status and application of the five United Nations treaties on outer space.

170. The view was expressed that space debris mitigation should be effectively implemented, regardless of the size and constellation of space objects, and that special attention should be given to the potential threat to access to outer space posed by megaconstellations.

171. The view was expressed that it was important to mitigate re-entry of space debris into the Earth’s atmosphere and to minimize its detrimental impact on the Earth, people and the ecosystem.

172. The view was expressed that a unified centre for information on near-Earth space monitoring under the auspices of the United Nations could be established.

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

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

174. Pursuant to General Assembly resolution 71/90, the Subcommittee considered agenda item 11, entitled “General exchange of information on non-legally binding United Nations instruments on outer space”, as a single issue/item for discussion.

175. The representatives of Belgium, Japan and Venezuela (Bolivarian Republic of) made statements under agenda item 11. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

176. The Subcommittee had before it a conference room paper entitled “Information on an updated compendium on mechanisms adopted by States and international organizations in relation to non-legally binding United Nations instruments on outer space” (A/AC.105/C.2/2017/CRP.21).

177. The Subcommittee heard a presentation entitled “United Arab Emirates space policy”, by the representative of the United Arab Emirates.

178. The Subcommittee noted that an updated compendium on mechanisms adopted by States and international organizations in relation to non-legally binding United Nations instruments on outer space, containing an additional submission by Austria, was made available at the fifty-sixth session of the Subcommittee on a dedicated web page of the Office for Outer Space Affairs, together with other relevant documents under this agenda item.

179. The Subcommittee welcomed the compendium as a valuable contribution to facilitate the exchange of views and the sharing of information on the implementation of non-legally binding United Nations instruments. The Subcommittee encouraged States members of the Committee and international intergovernmental organizations having permanent observer status with the Committee to share information on their practices related to non-legally binding United Nations instruments on outer space and submit their responses to the Secretariat for the purpose of updating the compendium.

180. The Subcommittee noted that non-legally binding United Nations instruments related to space activities had played an important role by complementing and supporting the United Nations treaties on outer space and that it was relevant to gain a better understanding of non-legally binding instruments and related practices thereto, as they served as an important basis for ensuring the safe and sustainable use of outer space.

181. The view was expressed that a number of States increasingly relied on non-legally binding agreements in relation to space activities and that such practice had consolidated itself because a large number of substantive concerns could not be satisfactorily addressed in the current institutional framework. Nor could they be settled, at least in the short term, by binding rules. The delegation expressing that view was also of the view that non-legally binding agreements could respond to a

broad range of regulatory concerns while still committing the participating States to act responsibly, and the delegation encouraged the use of such instruments, which could also help shape the legal system of the future.

182. Some delegations commended the efforts by the Working Group on the Long-Term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee, under the chairmanship of Peter Martinez (South Africa), and expressed the view that the outcomes of its work should be followed up by the Legal Subcommittee from a legal perspective.

183. The view was expressed that the United Nations Workshop on Space Law entitled “Contribution of space law and policy to space governance and space security in the twenty-first century” — held in Vienna from 5 to 8 September 2016, and organized by the Office for Outer Space Affairs in cooperation with the Office for Disarmament Affairs and co-sponsored by the United Nations Institute for Disarmament Research and SWF — had shown that space law needed to be addressed in a holistic manner and that all aspects of space safety and security required a profound understanding of space law as the indispensable framework for the long-term sustainability of outer space activities.

184. The view was expressed that transparency and confidence-building measures in outer space activities contributed to enhancing the sustainability of outer space activities, the safety of space operations and the security of space systems, and that joint efforts by the First and Fourth Committee of the General Assembly in that regard were welcomed.

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

185. Pursuant to General Assembly resolution 71/90, the Subcommittee considered agenda item 12, entitled “General exchange of views on the legal aspects of space traffic management” as a single issue/item for discussion.

186. The representatives of Austria, Germany, Japan, Mexico, Morocco, Pakistan, the Russian Federation and the United States made statements under agenda item 12. During the general exchange of views, statements relating to the item were made by representatives of other member States.

187. The Subcommittee heard a presentation by the observer for IAA entitled “2017 study on space traffic management”.

188. The Subcommittee noted that the space environment was becoming increasingly complex and congested, owing to the growing number of objects in outer space, the diversification of actors in outer space and the increase in space activities. It was noted that all of those factors increased the chances of potential collisions in outer space and that space traffic management could be considered in that context.

189. Some delegations expressed the view that a multilateral approach to space traffic management was required in order to avoid future problems in outer space and enhance the sustainability of outer space activities.

190. The Subcommittee took note of the International Academy of Astronautics *Cosmic Study on Space Traffic Management*, which proposed elements for inclusion in an international intergovernmental agreement on space traffic management. Such elements included provisions on the sources, format and sharing of data; notification systems; right-of-way rules; prioritization of manoeuvres; debris mitigation mechanisms; and safety provisions for launches, human spaceflight and re-entries. The Subcommittee also noted that a new space traffic management study had been developed by the International Academy of Astronautics, which focused on proposals for the implementation of space traffic management.

191. The Subcommittee took note of a number of measures that were being undertaken at both the national and international levels to improve the safety and sustainability of spaceflight, including the exchange of information and services related to space situational awareness, international coordination efforts to manage radiofrequency and geostationary orbits, the reporting of annual launch plans and the submission of pre-launch notifications on space launch vehicles.

192. The view was expressed that there is a need to implement existing frameworks related to space traffic management, such as the management of radio frequency and geostationary orbits by ITU and the submission of pre-launch notifications on space launch vehicles as well as the reporting of annual launch plans based on the “Hague Code of Conduct against Ballistic Missile Proliferation (HCOC)”.

193. The view was expressed that space traffic management — a concept sometimes defined as the development and implementation of a set of technical and regulatory provisions for promoting safe access to and from outer space, and for maintaining secure operations in space, free from physical or radiofrequency interference — was an important topic for endeavours that were aimed at keeping the outer space environment safe, stable and sustainable.

194. The view was expressed that the concept of space traffic management was a complex one and that considerations of the topic needed to include a serious analysis of all relevant operational and technical aspects and take into account, inter alia, the fact that most objects in outer space are non-maneuvrable.

195. The view was expressed that a comprehensive space traffic management regime to enhance safe and sustainable conduct of space activities could include improved exchanges of information on space situational awareness; enhanced registration procedures; notification mechanisms for launches, in-orbit manoeuvres and re-entries of space objects; safety provisions; regulations with regard to space debris; and environmental provisions.

196. The view was expressed that sharing space situational awareness information and services with governmental, intergovernmental and commercial entities improved the safety and sustainability of spaceflight. It was further expressed that such services were critical in avoiding collisions in outer space, which could degrade the space environment for all States.

197. The view was expressed that a United Nations-based mechanism for the exchange of information could be used to help set up an international legal framework for space traffic management and that the proposed mechanism could comprise the respective procedures for its operation and a database of objects and events in outer space.

198. The view was expressed that the proposal to set up an information platform under the auspices of the United Nations was very relevant to discussions on space traffic management. The delegation expressing that view also highlighted the direct links between the agenda item under discussion, the proposal for an information platform and the work being undertaken in the Scientific and Technical Subcommittee on a compendium of guidelines for the long-term sustainability of outer space activities. The delegation further expressed the view that the work already under way in the Scientific and Technical Subcommittee should be given priority and that the Legal Subcommittee should restrict its current deliberations to a general exchange of views on the topic.

199. Some delegations expressed the view that international space law, as set out in the United Nations outer space treaties and in non-legally binding instruments, was of direct relevance to and set forth the basic rules of space traffic management. Those same delegations were also of the view that existing international regulatory frameworks did not cover all the areas needed for the effective management of space traffic.

200. The view was expressed that detailed rules on topics, such as real-time collision avoidance and orbit management, needed to be developed and that new, non-legally binding instruments, or possibly the negotiation of a new binding United Nations outer space treaty, might be considered in that context.

201. The view was expressed that there was a need to develop comprehensive space traffic management regulations under the ITU Radio Regulations.

202. The view was expressed that a detailed space traffic regime was a prerequisite for a fault-based liability regime in orbit. The delegation expressing that view also highlighted the associated question put forward by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.

203. The view was expressed that a system of space traffic management rules could facilitate the practical application of a fault-based liability regime by defining a standard of care and due diligence for activities in outer space, against which behaviours of space actors could be assessed to establish fault.

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

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

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

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

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

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

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

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

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

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

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

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

213. Some delegations expressed the view that all international rights and obligations of States with respect to big satellites are equally relevant for the use of small satellites including the United Nations treaties and principles on outer space, the ITU Constitution and Convention and the Radio Regulations and certain non-binding instruments such as the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space.

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

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

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

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

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

219. The view was expressed that since the ITU regulatory framework exempted some space objects, there was a need for a greater certainty with respect to small satellites, and thus ITU should address this issue with the support of the Subcommittee.

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

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

221. Pursuant to General Assembly resolution [71/90](#), the Subcommittee considered agenda item 14, entitled “General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources” as a single issue/item for discussion.

222. The representatives of Australia, Austria, Belgium, Brazil, Canada, Chile, China, Costa Rica, Cuba, France, Germany, India, Indonesia, Italy, Japan, Luxembourg, Morocco, the Netherlands, the Russian Federation and the United States made statements. Statements were also made by the representative of Costa Rica on behalf of the Group of 77 and China and the representative of the Bolivarian Republic of Venezuela on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

223. The Subcommittee had before it a conference room paper containing the contribution from Belgium to the discussion of the Legal Subcommittee on the item entitled “General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources” ([A/AC.105/C.2/2017/CRP.19](#)).

224. The Subcommittee noted that the Hague Space Resources Governance Working Group, established to assess the need for a regulatory framework for space resource activities, had held two face-to-face meetings in 2016 and would hold a further two meetings in 2017. In that regard, the Subcommittee noted that the Working Group had identified 18 “building blocks”, which were the topic areas that such a regulatory framework could include.

225. Some delegations expressed the view that taking a broad multilateral approach to space resources within the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee was the only way to ensure that the concerns of all States were taken into account, thereby promoting peace and security among nations.

226. The view was expressed that the Legal Subcommittee needed to engage in a deep substantive analysis of the principle found in the Outer Space Treaty that the exploration and use of outer space was the province of all mankind, and the principle found in the Moon Agreement that the Moon and its natural resources were the common heritage of mankind, in order to determine the rights of all States in outer space law with respect to the utilization of space resources.

227. The view was expressed that the term “common heritage of mankind” was not found in the Outer Space Treaty and that such references to the Moon Agreement were likely to be more distracting than helpful because the Moon Agreement was not widely ratified and its concepts could not be taken to form part of customary international law.

228. Some delegations expressed the view that in the light of the increasing participation of the private sector in space activities, an international legal framework developed in a multilateral forum 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 and that such a framework was required to provide legal security.

229. Some delegations expressed the view that a broad debate about the implications of space resource activities was needed, that developing countries were not to be excluded from the benefits of space exploration and that their rights were to be considered in the discussion. The delegations expressing that view were also of the view that new economic models should not compromise the sustainability of space activities.

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

231. The view was expressed that the Legal Subcommittee should undertake detailed discussions on the exploitation and utilization of space resources by private entities, specifically addressing whether the legal status of a celestial body was the same as the legal status of the resources on it, whether the exploitation and utilization of space resources by a private entity could be for the benefit of all mankind, whether a private entity's claim of ownership of space resources violated the principle of non-appropriation in the Outer Space Treaty, and how an international mechanism for coordination and the sharing of space resources could be built.

232. The view was expressed that, under the provisions on freedom of exploration and use of outer space contained in the Outer Space Treaty, States and appropriately authorized and supervised private entities had the right to conduct activities in exploration and use of outer space, including space resources. Nevertheless, that right should be exercised in accordance with the existing legal framework and relevant principles governing outer space activities and for the benefit and in the interests of all States, in an effort to safeguard peace and security, and to protect the space environment for current and future generations.

233. Some delegations expressed the view that unilateral domestic initiatives aimed at regulating commercial activities in outer space could lead to the development of multiple incompatible national frameworks, which would pose a risk of conflicts among States and potentially impact the sustainability of outer space.

234. The view was expressed that thematic priority 2 of UNISPACE+50 provided the Legal Subcommittee with a unique opportunity to advance discussions on the diverging views of delegations on the subject of space resources, which would allow such views to be taken from different stakeholders having interests in the commercial use of space resources.

235. Some delegations expressed the view that questions under this agenda item, relating to space resources, could be included in the questionnaire before the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space (see [A/AC.105/1113](#), annex I, appendix), as part of thematic priority 2 of UNISPACE+50.

236. The view was expressed that as a high-level event, UNISPACE+50 was not an appropriate forum to undertake discussions on the controversial issue of exploration, exploitation and utilization of space resources.

237. Some delegations expressed the view that the numerous challenges and questions posed by the utilization of space resources, and the determination of whether such activity conformed with the international legal regime and the principles governing all outer space activities, could not be resolved through unilateral action, but rather could be addressed only through an inclusive multilateral process such as could be undertaken by the Legal Subcommittee.

238. The view was expressed that given the wide-ranging benefits that might be derived from the utilization of new technologies, such as furthering deep space missions, or through the financing of new multilateral initiatives to promote terrestrial development activities, it was incumbent on the international community to adequately address the issue of space resources so that such benefits could be enjoyed by all States and peoples.

239. The view was expressed that national legislation regarding the extraction and utilization of space resources by a private entity was in conformity with that State's

international obligations under the United Nations treaties on outer space when such legislation included provisions that demonstrated the absence of a will or intention by the State to claim sovereignty over all or part of any celestial body, provided that the activities of the private entity were carried out under an authorization and a supervision regime of that State and that authorized use of the space resources would be purely for peaceful purposes.

240. The view was expressed that article II of the Outer Space Treaty not only prohibited appropriation of the Moon or a celestial body by a claim of sovereignty, which would necessarily require the intention to do so, but it also prohibited national appropriation by means of use or occupation or any other means.

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

242. The view was expressed that, as long as activities were undertaken in an orderly manner, avoiding abuse, recklessness or risk-taking, and undertaken with the purpose of exploration of space, such activities should be considered for the benefit and in the general interest of all countries because of the technological progress and scientific advancements flowing from such activities.

243. The view was expressed that an international framework consistent with the goals of the Outer Space Treaty should be developed and address, in particular, how rights relating to natural resources of celestial bodies could be granted to a national entity without allowing that entity to claim exclusive access to an area on and below the surface of the celestial body, and how such rights would necessarily be limited in terms of the size of the area to be exploited and the duration, in a manner that respected the freedoms of others, as stipulated in the Outer Space Treaty.

244. The view was expressed that a pragmatic approach should be pursued, given that activities to utilize space resources would not reasonably be implemented in the very near term, thereby giving the international community time to develop a multilateral approach to addressing the use of space resources. That delegation was of the view that, at a minimum, States should work together in the Legal Subcommittee to define and characterize, as appropriate, commonly accepted principles, guidelines or good practices that would enable States to adopt, to the greatest extent possible, a harmonized approach to their national legislation on space resources.

245. The view was expressed that the regulation of private sector actors in outer space was consistent with a State's international obligations under the Outer Space Treaty and with half a century of practice under the Treaty, and the consistently stated positions of some States.

246. The view was expressed that the extraction of resources from the Moon or a celestial body was a use within the meaning of and permitted by article I of the Outer Space Treaty, which provides that "outer space, including the Moon and other celestial bodies, shall be free for exploration and use by all States".

247. The view was expressed that exploitation of space resources went beyond what was generally understood as exploration and utilization and would therefore not be covered by the concept of freedom of exploration and utilization of outer space in the Outer Space Treaty. That delegation was also of the view that recognition by States of ownership rights that were not at their national disposal would be in conflict with the non-appropriation principle in article II of the Treaty.

248. The view was expressed that the principle of non-appropriation found in the Outer Space Treaty applied to the natural resources of the Moon and other celestial bodies only when such resources were "in place", and that once such resources were removed from their "place", the prohibition on national appropriation no longer

applied, and that ownership rights over those extracted natural resources could thereafter be exercised by States or private entities.

249. The view was expressed that article VIII of the Outer Space Treaty provided that launching an object into outer space did not affect that object's ownership. By extension, entities engaging in space resource utilization activities would therefore retain ownership interests in their equipment, whether landed or constructed on a celestial body, including whatever non-interference rights that flowed from those ownership interests, even though they would not acquire ownership or exclusive access interest in the ground beneath their equipment, as prohibited by article II of that treaty.

250. The view was expressed that the Legal Subcommittee should develop a single approach to outer space law that called on States to take a pragmatic and reasonable approach to developing an appropriate and legal framework to govern the issue of space resources. It was further expressed that the unilateral action of individual States to promote their national private commercial interests, or to allow a "flag of convenience" approach for corporate structures to exploit outer space resources, was unacceptable.

XIV. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space

251. Pursuant to General Assembly resolution 71/90, the Subcommittee considered agenda item 15, entitled "Review of international mechanisms for cooperation in the peaceful exploration and use of outer space", as an item under its five-year workplan (see [A/AC.105/1003](#), para. 179).

252. The representatives of China, Germany, Japan, Mexico, Poland, the Republic of Korea, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 15. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

253. At its 937th meeting, on 27 March 2017, the Subcommittee reconvened its Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space, under the chairmanship of Setsuko Aoki (Japan). At its 954th meeting, on 6 April, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex III to the present report.

254. The Subcommittee had before it the following:

(a) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing replies received from Slovakia, Thailand and Turkey and the World Meteorological Organization ([A/AC.105/C.2/111](#));

(b) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing replies received from Austria and Germany ([A/AC.105/C.2/111/Add.1](#));

(c) Conference room paper containing the draft report of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space ([A/AC.105/C.2/2017/CRP.15](#));

(d) Conference room paper entitled "International cooperation in the peaceful exploration and use of outer space: filling the gap between developing and developed countries", submitted by Cuba, Iran (Islamic Republic of) and Venezuela (Bolivarian Republic of) ([A/AC.105/C.2/2017/CRP.22](#));

(e) Conference room paper containing the updated draft report of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space ([A/AC.105/C.2/2017/CRP.27](#));

(f) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from the International Institute of Space Law ([A/AC.105/C.2/2017/CRP.30](#));

(g) Conference room paper entitled “Contribution of Indonesia to the fifty-sixth session of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space” ([A/AC.105/C.2/2017/CRP.31](#)).

255. The Subcommittee heard a presentation entitled “International cooperation of small satellite deployment from ISS/Kibo and its legal aspects”, by the representative of Japan.

256. The Subcommittee noted the wide range of mechanisms utilized in space cooperation and the important elements they contained. Those mechanisms included legally binding multilateral and bilateral agreements; memorandums of understanding; non-legally binding arrangements, principles and technical guidelines; multilateral coordination mechanisms through which space-system operators coordinated the development of applications of space systems for the benefit of the environment, human security and welfare, and development; international intergovernmental organizations, such as APSCO and ESA; and a variety of international and regional forums, including the Asia-Pacific Regional Space Agency Forum (APRSAF) and the Space Conference of the Americas.

257. The Subcommittee noted that the Eighth Space Conference of the Americas and the Second Venezuelan Congress of Space Technology would both be held in September 2017 in Caracas.

258. The view was expressed that the Subcommittee should play a positive role in fostering international cooperation so as to strengthen the design of the system of international cooperation and develop an effective and practical cooperative mechanism to safeguard peace, security and the rule of law in outer space.

259. The view was expressed that the International Space Station programme was an example of a successful multilateral cooperation effort among many stakeholders. Its success was based upon its solid legal foundation (the International Space Station Intergovernmental Agreement) and its effective management structure, set out in the memorandums of understanding.

260. The view was expressed that the specificity of the space law regime, which to a large extent regulated issues beyond national jurisdiction, required active engagement in international cooperation, coordination and information exchange from every State and international organization.

261. The view was expressed that it was necessary to increase international cooperation among States in order to gain access to and training on space technology in the areas of climate change and disaster prevention and mitigation. The same delegation also expressed the view that States should engage in joint coordinated projects, make better use of free and open-access databases of satellite-derived data and coordinate common efforts to negotiate the purchase of satellite images in order to reduce costs.

262. The view was expressed that promoting international cooperation was the basis for many of that State’s programmes in space science and technology training involving international experts, providing satellite data and information for disaster management and relief efforts to numerous receiving States, and promoting the use of small satellites for space research.

263. The view was expressed that the receipt of training programmes had allowed that State to benefit from international cooperation in the form of the sharing of

expertise by partnering States in the design and construction of large-scale technological projects, control and operation of communications and remote-sensing satellites, ground station operations and geographic information systems.

264. Some delegations expressed the view that international space cooperation should be based on the concepts of equality, mutual benefit and inclusive development, which would enable all States, irrespective of the level of their economic development, to enjoy the benefits derived from the use of space applications.

265. The view was expressed that international mechanisms for cooperation in the peaceful exploration and use of outer space were not used in the case of the unilateral enactment of national laws that promoted the private commercial interests of certain States.

266. The Subcommittee agreed that the review of international mechanisms for cooperation in space activities had assisted States in understanding the different approaches to cooperation in space activities and contributed to the further strengthening of regional, interregional and international cooperation in the exploration and peaceful uses of outer space. In that regard, the Subcommittee noted that 2017, the final year of consideration of the agenda item under its workplan, would coincide with the fiftieth anniversary of the Outer Space Treaty.

XV. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-seventh session

267. Pursuant to General Assembly resolution 71/90, the Subcommittee considered agenda item 16, entitled “Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-seventh session”, as a regular item on the agenda. Under the item, the Subcommittee also considered matters related to the organization of work.

268. The representatives of Australia, Belgium, Chile, China, France, Greece, Japan, Luxembourg, Mexico, the Russian Federation, Spain and the United States made statements under agenda item 16. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

269. The Subcommittee agreed that five single issues/items for discussion, entitled “Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space”, “General exchange of information on non-legally binding United Nations instruments on outer space”, “General exchange of views on the legal aspects of space traffic management”, “General exchange of views on the application of international law to small-satellite activities” and “General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources”, should be retained on the agenda of the Subcommittee at its fifty-seventh session.

270. The Subcommittee agreed that a single issue/item for discussion should be retained on the agenda of the Subcommittee at its fifty-seventh session with the amended title, “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”.

271. The Subcommittee agreed that the following items be proposed to the Committee for inclusion in the agenda of the Subcommittee at its fifty-seventh session:

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.

Single issues/items for discussion

10. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
11. General exchange of information and views on legal mechanisms relating to space debris mitigation and remediation measures, taking into account the work of the Scientific and Technical Subcommittee.
12. General exchange of information on non-legally binding United Nations instruments on outer space.
13. General exchange of views on the legal aspects of space traffic management.
14. General exchange of views on the application of international law to small-satellite activities.
15. General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources.

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 fifty-eighth session.

272. The view was expressed that any legal framework considered in connection with the agenda item “General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources” must include three essential points: that all States be able to benefit from the exploitation of space resources and that exploitation should not be reserved for a monopoly; that the exploitation of resources must be rational and sustainable; and that private and public investors should be protected by guarantees of legal certainty.

273. The view was expressed that consideration of the agenda item “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” should emphasize legal definitions and that under this item delegations should present their views on the legal aspects of the development and conduct of operations to remediate space debris.

274. The view was expressed that importance should be attached in the Subcommittee to both a careful legal analysis of the existing legal regime for outer space and the closing of lacunae in space law, bearing in mind that detailed discussions of truly universal mechanisms must take place under the aegis of the United Nations.

275. The Subcommittee agreed that IISL and ECSL should once again be invited to organize a symposium, to be held during the Subcommittee's fifty-seventh session, taking into account the need for equitable geographical and gender representation in the symposium in order to reflect a broader range of opinions. The Subcommittee urged IISL and ECSL to cooperate with other interested academic entities for that purpose.

276. The Subcommittee noted that its fifty-seventh session had been tentatively scheduled to be held from 9 to 20 April 2018.

Annex I

Report of the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space

I. Introduction

1. At its 937th meeting, on 27 March 2017, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space under the chairmanship of Bernhard Schmidt-Tedd (Germany).

2. From 28 March to 6 April 2017, the Working Group held 10 meetings. The Working Group considered the following items:

(a) UNISPACE+50 thematic priority 2, entitled “Legal regime of outer space and global space governance: current and future perspectives”;

(b) Draft declaration on the fiftieth anniversary 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;

(c) The set of questions of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space;

(d) Draft questionnaire on the application of international law to small-satellite activities.

3. The Working Group had before it the following:

(a) Note by the Secretariat on the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: the Committee on the Peaceful Uses of Outer Space and global governance of outer space activities ([A/AC.105/1137](#));

(b) Note by the Secretariat containing the draft declaration on the fiftieth anniversary 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 ([A/AC.105/C.2/L.300](#));

(c) Conference room paper entitled “UNISPACE+50: status of preparations” ([A/AC.105/C.2/2017/CRP.5](#));

(d) Note by the Secretariat containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, received from Austria and Germany ([A/AC.105/C.2/2017/CRP.6](#));

(e) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2017 ([A/AC.105/C.2/2017/CRP.7](#));

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

(g) Proposal submitted by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, entitled “UNISPACE+50 thematic priority 2, entitled ‘Legal regime of outer space and global space governance: current and future perspectives’: draft working method” ([A/AC.105/C.2/2017/CRP.14](#));

(h) Note by the Secretariat containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application

of the Five United Nations Treaties on Outer Space, received from Greece ([A/AC.105/C.2/2017/CRP.17](#));

(i) Conference room paper containing the updated draft questionnaire on the application of international law to small-satellite activities ([A/AC.105/C.2/2017/CRP.26](#));

(j) Conference room paper containing the draft General Assembly resolution on the fiftieth anniversary of the Outer Space Treaty ([A/AC.105/C.2/2017/CRP.28](#));

(k) Conference room paper containing the draft declaration on the fiftieth anniversary 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 ([A/AC.105/C.2/2017/CRP.32](#)).

4. The Working Group recommended that the Subcommittee reconvene the Working Group for the duration of the multi-year workplan under UNISPACE+50 thematic priority 2, until 2020, in accordance with the working method contained in paragraph 8, below.

5. At its 10th meeting, on 6 April, the Working Group adopted the present report.

II. UNISPACE+50 thematic priority 2, entitled “Legal regime of outer space and global space governance: current and future perspectives”

6. The Working Group considered the proposal submitted by the Chair of the Working Group contained in [A/AC.105/C.2/2017/CRP.14](#), and assessed that consideration of all the elements under the thematic priority required a clear working method that was easy to apply and had time-bound outputs.

7. Considering the complexities enshrined in the defined objectives of thematic priority 2, under its subparagraphs (a)-(e), as contained in the report of the Committee on the Peaceful Uses of Outer Space, on its fifty-ninth session ([A/71/20](#), para. 296), including the broad perspective of international space law and policy, as well as issues of concern to the safety, security and sustainability of outer space activities, and that those topics should be considered in a structured manner, the Working Group agreed to the following three clusters:

(a) *Cluster 1.* Using the set of questions established under the Working Group as a basis for assessing the state of affairs of the five United Nations treaties on outer space; analysing the effectiveness of the legal regime of outer space; and addressing the status and scope of, and assessing and, as appropriate, addressing possible gaps in, the legal regime of outer space. This exercise begins already in 2017, for which discussions on the set of questions would be held in the Working Group meetings in combination with continued annual invitations for written responses. The recommendation of the United Nations Workshop on Space Law, held in Vienna in 2016 ([A/AC.105/1131](#), para. 50 (i)), is to be taken into account, for which under thematic priority 2, an assessment of customary law perspectives relating to international space law should be conducted, as well as an in-depth assessment of possible substantive and operational gaps in the legal regime of outer space, focusing in particular on responsibility and liability for national space activities. In parallel, possible gaps in the legal regime of a more conceptual nature should also be studied. This process could also provide elements to be considered in the development of the guidance document and tools under cluster 3, below;

(b) *Cluster 2.* Observing the progress of work under the Working Group of the Scientific and Technical Subcommittee on the Long-term Sustainability of Outer Space Activities, as well as the work to be conducted under UNISPACE+50 thematic priority 3, entitled “Enhanced information exchange on space objects and events” ([A/71/20](#), para. 296), with a view to connecting the results of those processes, as appropriate, to objective (c) of thematic priority 2. Thus, the review of

the topics identified under objective (c) would not commence under thematic priority 2 until there has been further progress in the Scientific and Technical Subcommittee, accordingly. In this context, the Working Group could consider the usefulness of developing a matrix addressing interlinkages between the possible outcome of the Working Group on the Long-term Sustainability of Outer Space Activities and the treaties, principles and other instruments under the legal regime of outer space. This cluster would also be important for the consideration of means of strengthening the Legal Subcommittee and procedural and institutional improvements and closer cooperation with the Scientific and Technical Subcommittee (see, under thematic priority 2, objectives (b) and (e)). The perspectives of space traffic management would be an overarching objective for consideration and possible establishment in the long-term perspective and leading towards 2030;

(c) *Cluster 3*. Promoting the universality of the five United Nations treaties on outer space, including by identifying approaches and possible criteria for developing a guidance document as described under thematic priority 2, objective (d). In this regard, the Working Group could explore ways and means of encouraging States members of the Committee on the Peaceful Uses of Outer Space to become parties to the Outer Space Treaty, as well as promoting the increase in membership of the Committee, in order to match the complement of State parties to the Outer Space Treaty with the membership of the Committee. The guidance document should be developed in combination with other tools, including the further development of online tools on the website of the Office for Outer Space Affairs, and the issuance of a report in the six official languages of the United Nations. The progress and outcome of other past working groups of the Legal Subcommittee should be observed, including, inter alia, with respect to the concept of “launching State”, registration practice, national space legislation and international mechanisms for cooperation in the peaceful exploration and use of outer space. Capacity-building and technical assistance carried out by the Office for Outer Space Affairs in the field of international space law and policy should be considered fundamental tools in those efforts, as should be the further development of a model for national space legislation, as appropriate, and as recommended in the report of the Space Law Workshop (A/AC.105/1131, para. 50 (h) and (i)).

8. Pursuant to the identification of the three clusters in paragraph 7, above, the Working Group agreed to the following working method:

- 2017 Agree on the working method under thematic priority 2; and commence discussions in the Working Group on the set of questions of the Working Group for the purpose of cluster 1;
- 2018 Review the status report of thematic priority 2 for the purpose of UNISPACE+50 in 2018; identify and agree on the key points for the guidance document and the online tool under cluster 3, including on efforts to strengthen capacity-building and assistance, on the basis of a proposed outline to be presented by the Chair in close consultation with the Secretariat; continue the discussion and assessment under cluster 1; and assess the way ahead under this thematic priority on the processes identified under cluster 2;
- 2019 On the basis of a proposal by the Chair, in close consultation with the Secretariat, review the draft guidance document and tools for the universality of the five United Nations treaties on outer space, in particular on the enhancement of accession to the Outer Space Treaty and membership of the Committee, as identified under cluster 3;
- 2020 Finalize the guidance document and tools under cluster 3. Decide on any further consideration of topics identified under clusters 1-3, as appropriate, and identify the most suitable mechanism within the Legal Subcommittee for this purpose.

III. Draft declaration on the fiftieth anniversary 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

9. The Working Group considered the draft declaration on the fiftieth anniversary 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, contained in document [A/AC.105/C.2/L.300](#). On the basis of a revised version contained in [A/AC.105/C.2/2017/CRP.28](#), the Working Group agreed to a text and format of such a draft declaration, as contained in [A/AC.105/C.2/2017/CRP.32](#) to be made available in a document in the six official languages of the United Nations, for endorsement by the Committee on the Peaceful Uses of Outer Space, at its sixtieth session, in 2017.

IV. The set of questions of the Working Group on the status and application of the five United Nations treaties on outer space

10. The Working Group reviewed the set of questions contained in the report of the Legal Subcommittee on its fifty-fifth session (see [A/AC.105/1113](#), annex I, appendix), as part of its work under cluster 1 for 2017 (see para. 7, above), with a view to determining whether there was a need to make changes to the set of questions to meet the objective of thematic priority 2 under consideration.

11. In the course of the consideration of the set of questions, different views were expressed by delegations on additional topics potentially to be covered by the set of questions, such as issues related to emerging space activities and technologies in relation to the international legal framework for space activities, in particular related to the exploration, exploitation and utilization of space resources, as well as the practice of the development and use of small satellites. In that context, different views were expressed, particularly on the scope of the questions under subheading 2, on the United Nations treaties on outer space and provisions related to the Moon and other celestial bodies, and a number of related potential questions were raised by delegations in the discussion.

12. The Working Group considered this discussion to be an important exchange of views that had, already at the present session, provided the Working Group with a better understanding of the range and complexity of topics relevant to consideration under thematic priority 2. On that basis and as a compromise, the Working Group agreed to retain the set of questions as contained in document [A/AC.105/1113](#), annex I, appendix (see also appendix I, below), and agreed that States members of the Committee and international intergovernmental and non-governmental organizations having permanent observer status with the Committee should be invited to continue providing comments and responses to the questionnaire. Any replies received would be made available in a conference room paper.

13. The Working Group noted in that regard that the current set of questions was general enough to provide for a broad range of views, and that continued discussions under thematic priority 2 would benefit from more written contributions from States members and permanent observer of the Committee.

V. Draft questionnaire on the application of international law to small-satellite activities

14. The Working Group considered the proposed draft questionnaire on the application of international law to small-satellite activities contained in [A/AC.105/C.2/2017/CRP.11](#) and the revised updated version contained in

[A/AC.105/C.2/2017/CRP.26](#) and agreed to a dedicated new questionnaire, contained in appendix II to the present report. The Working Group was of the view that the questions, if responded to, would provide the Working Group and the Subcommittee itself with valuable information on the important issues covered by the questionnaire.

15. The Working Group agreed that States members of the Committee and international intergovernmental and non-governmental organizations having permanent observer status with the Committee should be invited to provide comments and responses to the questionnaire. Any replies received would be made available in a conference room paper.

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 of 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 of the five United Nations treaties on outer space that could be considered as forming part of international customary law and, if yes, which ones? Could you explain the legal and/or factual elements on which your answer is based?

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. Pursuant to General Assembly resolution [71/90](#), the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space, at its 937th meeting, on 27 March 2017, reconvened its Working Group on the Definition and Delimitation of Outer Space under the chairmanship of José Monserrat Filho (Brazil).
2. The Chair drew the attention of the Working Group to the fact 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 [71/90](#), the Working Group was convened to consider only matters relating to the definition and delimitation of outer space.
3. The Working Group had before it the following:
 - (a) Note by the Secretariat on national legislation and practice relating to the definition and delimitation of outer space ([A/AC.105/865/Add.18](#) and 19);
 - (b) Note by the Secretariat on questions on suborbital flights for scientific missions and/or for human transportation ([A/AC.105/1039/Add.7](#), 8 and 9);
 - (c) Note by the Secretariat entitled “Definition and delimitation of outer space: views of States members and permanent observers of the Committee” ([A/AC.105/1112/Add.2](#) and 3);
 - (d) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Bolivia (Plurinational State of)” ([A/AC.105/C.2/2017/CRP.9](#));
 - (e) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Greece” ([A/AC.105/C.2/2017/CRP.16](#));
 - (f) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation” ([A/AC.105/C.2/2017/CRP.23](#));
 - (g) Conference room paper entitled “Matters relating to the definition and delimitation of outer space: replies of Pakistan” ([A/AC.105/C.2/2017/CRP.24](#)).
4. The Working Group dedicated extensive time to considering the replies contained in the documents referred to in paragraph 3, above.
5. The Working Group noted that the Chair of the Working Group recalled his proposal to take a flexible and pragmatic approach to the definition and delimitation of outer space; considering that States have different views on the definition and delimitation of outer space, it was important to find a common vision and to attempt to arrive at a commonly agreed standpoint, taking into account all positions and views ([A/AC.105/1113](#), annex II, para. 5). The Working Group also noted that pursuant to this proposal, the Chair of the Working Group would prepare a working paper, to be made available by the Secretariat as a document of the United Nations and sent to member States and permanent observers of the Committee.
6. The Working Group agreed:
 - (a) To continue to invite States members of the Committee to submit information on national legislation or any national practices that might exist or were being developed that related directly or indirectly to the definition and/or delimitation of outer space and airspace;
 - (b) To 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) To 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 suborbital flights for scientific missions and/or for human transportation and the definition and delimitation of outer space?

(ii) 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?

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

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

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

(vi) 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) To invite States members and permanent observers of the Committee to provide their views, comments and own proposals in reaction to the working paper to be prepared by the Chair of the Working Group, referred to in paragraph 5, above.

Annex III

Report of the Chair of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space

1. At its 937th meeting, on 27 March 2017, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space under the chairmanship of Setsuko Aoki (Japan).
2. The Working Group held four meetings between 31 March and 6 April 2017. At the opening meeting, the Chair outlined the mandate of the Working Group under its five-year workplan ([A/AC.105/1003](#), para. 179).
3. The Working Group had before it the following:
 - (a) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from Slovakia, Thailand, Turkey and the World Meteorological Organization ([A/AC.105/C.2/111](#));
 - (b) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from Austria and Germany ([A/AC.105/C.2/111/Add.1](#));
 - (c) Conference room paper containing the draft report of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space ([A/AC.105/C.2/2017/CRP.15](#));
 - (d) Conference room paper entitled “International cooperation in the peaceful exploration and use of outer space: filling the gap between developing and developed countries”, submitted by Cuba, Iran (Islamic Republic of) and Venezuela (Bolivarian Republic of) ([A/AC.105/C.2/2017/CRP.22](#));
 - (e) Note by the Secretariat on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from Pakistan ([A/AC.105/C.2/2017/CRP.25](#));
 - (f) Conference room paper containing the updated draft report of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space ([A/AC.105/C.2/2017/CRP.27](#));
 - (g) Conference room paper on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, containing information received from the International Institute of Space Law ([A/AC.105/C.2/2017/CRP.30](#)).
4. The Working Group emphasized that the conclusion of its work under the five-year workplan, in 2017, would coincide with the fiftieth anniversary 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 result of the work done under the five-year workplan would therefore serve as an important contribution to that commemoration, as international mechanisms for cooperation had evolved considerably over the past 50 years. In that regard, the Working Group also recalled that its work would provide a significant source of information in the context of the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50), in 2018.
5. The Working Group considered its draft report on the work conducted under its multi-year workplan, as contained in [A/AC.105/C.2/2017/CRP.15](#), which had been prepared jointly by the Chair of the Working Group and the Secretariat on the

basis of contributions made by States members and permanent observers of the Committee to the work of the Working Group and of additional research. The Working Group agreed that the present document, which constituted an updated version of conference room paper [A/AC.105/C.2/2016/CRP.14](#) of the fifty-fifth session of the Subcommittee, was a sound basis on which to finalize its report at the current session of the Subcommittee.

6. The Working Group considered the contribution to its work contained in conference room paper [A/AC.105/C.2/2017/CRP.22](#), and, on the basis of an updated revised draft report of the Working Group as contained in [A/AC.105/C.2/2017/CRP.27](#), agreed to its final report, as a whole, as amended, to be entitled “Report of the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space on the work conducted under its multi-year workplan”, to be issued in the six official languages of the United Nations as document [A/AC.105/C.2/112](#), for submission to the Committee on the Peaceful Uses of Outer Space at its sixtieth session, in 2017.

7. In the course of its work during the present session of the Subcommittee, the Working Group again observed several examples of international mechanisms for cooperation, ranging from bilateral and multilateral agreements and memorandums of understanding to regional and interregional cooperation and coordination mechanisms and other international cooperation mechanisms for specific space activities, and noted that the final report, when issued, would represent an important source of information for further joint undertakings by spacefaring nations and emerging space nations, as appropriate, and provide useful guidance to this complex area of various layers of cooperation mechanisms.

8. The Working Group observed that its findings as contained in the final report, and which comprised a multi-year effort, had already led to a better understanding of the different approaches taken by States and international organizations to cooperation in space activities. The final report could therefore constitute a basis for the further strengthening of international cooperation in the peaceful exploration and use of outer space.

9. The Working Group expressed its gratitude to the Chair of the Working Group for her dedicated and tireless efforts in guiding the work under its multi-year workplan and for her thorough research leading to the substantive fact-finding and analysis contained in the final report of the Working Group.