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**Committee on the Peaceful  
Uses of Outer Space**  
**Fifty-ninth session**  
Vienna, 8-17 June 2016

**Report of the Legal Subcommittee on its fifty-fifth session,  
held in Vienna from 4 to 15 April 2016**

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## **I. Introduction**

### **A. Opening of the session**

1. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-fifth session at the United Nations Office at Vienna from 4 to 15 April 2016. At its 917th meeting, on 4 April 2016, Mr. Hellmut Lagos Koller (Chile) was elected Chair for a two-year term of office, pursuant to General Assembly resolution 70/82.
2. The Subcommittee held 20 meetings.

### **B. Adoption of the agenda**

3. At its 917th meeting, on 4 April, the Subcommittee adopted the following agenda:
  1. Adoption of the agenda.
  2. Election of the Chair.
  3. Statement by the Chair.
  4. General exchange of views.
  5. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
  6. Status and application of the five United Nations treaties on outer space.
  7. Matters relating to:
    - (a) The definition and delimitation of outer space;
    - (b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.
  8. National legislation relevant to the peaceful exploration and use of outer space.
  9. Capacity-building in space law.
  10. 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 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. 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-sixth session.

### **C. Attendance**

4. Representatives of the following 65 States members of the Committee attended the session: Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czech Republic, Ecuador, El Salvador, France, Germany, Greece, India, Indonesia, Iran (Islamic Republic of), Israel, Italy, Japan, Jordan, Kazakhstan, Luxembourg, Malaysia, Mexico, Morocco, Netherlands, Nicaragua, Nigeria, Oman, Pakistan, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Thailand, 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. The Subcommittee decided to invite, at their request, observers for Cyprus, the Dominican Republic, Namibia, New Zealand, Norway and Panama 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. The Subcommittee also decided to invite the observer for the European Union, at its request, to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that doing so would not involve any decision of the Committee concerning status.

7. Observers for the Office for Disarmament Affairs of the Secretariat, the United Nations Environment Programme 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), European Space Agency (ESA), European Telecommunications Satellite Organization, Inter-Islamic Network on Space Sciences and Technology, International Mobile Satellite Organization, 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: European Centre for Space Law (ECSL), European Space Policy Institute (ESPI), Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, International Association for the Advancement of Space

Safety, International Institute of Space Law (IISL), International Law Association (ILA), International Space University, Secure World Foundation, Space Generation Advisory Council (SGAC) and World Space Week Association.

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.2/2016/INF/48 and corrigendum.

#### **D. Symposium**

11. On 4 April, IISL and ECSL held a symposium on the theme “Forty years since the entry into force of the Registration Convention: today’s practical issues”, co-chaired by Tanja Masson-Zwaan of IISL and Sergio Marchisio of ECSL. The symposium was opened with a statement of welcome by the co-chairs and the Chair of the Subcommittee, and the Subcommittee subsequently heard the following presentations: “Legal and practical considerations on registering mega-constellations and space debris”, presented by Alexander Soucek; “Currently debated issues: registration of hosted payloads, in-orbit transfer of ownership and the future of notifications and pre-launch notifications”, by Elina Morozowa; “Registration of space objects with the Secretary-General”, by Simonetta Di Pippo; “Launch providers: role and practice” by Clayton Mowry; “Registration and space situational awareness”, by Olavo de Oliveira Bittencourt Neto; and “Lessons from other regimes (telecommunications, aviation, maritime)”, by Stephan Hobe and Peter Stubbe. Concluding remarks were made by the co-chairs of the symposium and the 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/2016/symposium.html](http://www.unoosa.org/oosa/en/ourwork/copuos/lsc/2016/symposium.html)).

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

#### **E. Adoption of the report of the Legal Subcommittee**

13. At its 936th meeting, on 15 April, the Subcommittee adopted the present report and concluded the work of its fifty-fifth 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, Bulgaria, Canada, China, Colombia, Costa Rica, Cuba, Czech Republic, El Salvador, France, Germany, India, Indonesia, Iran (Islamic Republic of), Israel, Italy, Japan, Luxembourg, Mexico, Netherlands, Pakistan, Republic of Korea, Russian Federation, South Africa, Sweden, Thailand, Turkey, United States and Venezuela (Bolivarian Republic of). Statements were made by Namibia on behalf of the Group of 77 and China and by the Dominican Republic on behalf of the Group of Latin American and Caribbean States. The observers for APSCO, ESA, ESPI, IISL, the International Space University and SGAC also made statements.

15. The Subcommittee highlighted its historic mission as the unique intergovernmental multilateral negotiation forum for developing space law.
16. The Subcommittee welcomed El Salvador, Israel, Oman, Qatar, Sri Lanka and the United Arab Emirates as new members of the Committee.
17. At the 917th meeting, on 4 April, the Chair made a statement in which he highlighted the programme of work and organizational matters pertaining to the current session of the Subcommittee.
18. 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 and the Office's cooperation with the Panel of Experts established pursuant to Security Council resolution 1874 (2009). 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.
19. Some delegations condemned the most recent violation of Security Council resolutions 1718 (2006), 1874 (2009), 2087 (2013) and 2094 (2013) by the Democratic People's Republic of Korea by its launch using ballistic missile technology on 7 February 2016.
20. The view was expressed that, bearing in mind the final report, dated 23 February 2015, of the Panel of Experts established pursuant to Security Council resolution 1874 (2009) (S/2015/131, annex), which confirmed that the Democratic People's Republic of Korea attempted to obtain external cooperation under the guise of pursuing the peaceful use of outer space, States should closely cooperate in implementing all relevant Security Council resolutions, including resolution 2270 (2016) adopted on 2 March 2016, in order to prevent such attempts by the Democratic People's Republic of Korea, even if the objects launched were characterized as satellites or space launch vehicles.
21. The Subcommittee noted with satisfaction that the Office continued to monitor and implement the decisions and recommendations of the Security Council and the General Assembly that were relevant to its work, to the activities performed by entities affiliated to the United Nations in accordance with the mandate by the Committee and to the Office's collaboration with the Panel of Experts established pursuant to Security Council resolution 1874 (2009).
22. The Subcommittee noted with appreciation the seminar and symposiums held on the margins of the current session, namely a seminar entitled "Cross-cutting perspectives in space law", organized by the delegations of France and Japan, a symposium entitled "Challenges to international law on the threshold of UNISPACE+50", organized by the delegation of Argentina, and a symposium entitled "Space mining between the space treaties and the United States Commercial Space Launch Competitiveness Act", organized by ESPI.

23. 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 the improvement of living conditions and peace among the peoples that inhabit our planet; and international cooperation in the development of space activities.
24. 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 will ever be placed there.
25. 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.
26. The view was expressed that the Subcommittee should consider the legal basis for, and the modalities of, all aspects of the right to self-defence in outer space and that discussions on this topic could help reinvigorate the work of the Subcommittee.
27. The view was expressed that there was an increasingly close interface between peaceful uses and security-related uses of outer space and that the international legal framework needed to be strengthened to enhance the safety and sustainability of space assets for all space users.
28. The view was expressed that there should be greater cooperation between the Committee on the Peaceful Uses of Outer Space and the Conference on Disarmament, as the prevention of the placement of weapons in outer space and the threat or use of force against outer space objects are issues inextricably linked with the long-term security and sustainability of outer space activities.
29. The view was expressed that there was a need for a holistic approach to space issues that crossed all sectors and addressed civilian, commercial and military needs.
30. 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 to work within the Subcommittee on an appropriate regulatory framework that would encompass those topical issues.
31. 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.

32. Some delegations expressed the view that it was essential to promote active international cooperation among countries with the most developed space capabilities, countries with less developed space capabilities and countries currently without space capabilities, and to strengthen intraregional cooperation.

33. 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 as to allow future generations to also enjoy the benefits of outer space.

34. The view was expressed that the privatization and commercialization of space were becoming increasingly important issues in connection with outer space activities.

35. The view was expressed that regulations associated with the commercialization of outer space should not be promoted, as outer space was the heritage of humankind and belonged to all States on an equal footing.

36. 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 unlock 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.

37. 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.

38. Some delegations expressed the view that the Legal Subcommittee should follow the work of the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee, stressing that the draft guidelines for the long-term sustainability of outer space activities should be adopted soon.

39. The view was expressed that a finalized set of guidelines for the long-term sustainability of outer space activities could serve as an interim step in the process towards an international, non-discriminatory, effectively verifiable and legally binding treaty on the prevention of an arms race in outer space to be eventually concluded at the Conference on Disarmament.

40. The view was expressed that it was important that negotiations on a code of conduct for outer space activities take place in a multilateral and inclusive setting within the structures and using the mechanisms of the United Nations.

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

41. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 5, entitled "Information on the activities of international



intergovernmental and non-governmental organizations relating to space law”, as a regular item on its agenda.

42. Statements were made by the observers for ECSL, the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, ILA and Intersputnik under agenda item 5.

43. 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 IISL and ILA (A/AC.105/C.2/108);

(b) Conference room paper containing information on activities relating to space law received from ECSL (A/AC.105/C.2/2016/CRP.11).

44. The Subcommittee heard a presentation entitled “The Space Generation Advisory Council: a focus on the Space Law and Policy Project Group”, by an observer for SGAC.

45. 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, clarification 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 was intended to broaden and advance knowledge of space law.

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

47. The Subcommittee welcomed the information provided by the observer for ECSL on its activities relating to space law (see A/AC.105/C.2/2016/CRP.11), including information on the 2015 Practitioners’ Forum, held in Paris on 27 March 2015; the 2016 Practitioners’ Forum, held in Paris on 18 March 2016; the 2015 European round of the Manfred Lachs Space Law Moot Court Competition, held in Belgrade from 1 to 5 June 2015; the upcoming 2016 European round of the Manfred Lachs Space Law Moot Court Competition, to be held in Glasgow, United Kingdom, from 27 to 29 April; and the outcome of the twenty-fourth ECSL Summer Course on Space Law and Policy, held in Caen, France, from 31 August to 11 September 2015.

48. The Subcommittee welcomed the information provided by the observer for IISL on its activities relating to space law (see A/AC.105/C.2/108), including information on the upcoming twenty-fifth Manfred Lachs Space Law Moot Court Competition, to be held in Guadalajara, Mexico, in 2016; information on the International Academy of Astronautics-IISL Conference on Climate Change and Disaster Management, held in Thiruvananthapuram, India, from 26 to 28 February 2015; and information on the fifty-eighth IISL Colloquium on the Law of Outer Space, held in Jerusalem from 12 to 16 October 2015.

49. The Subcommittee welcomed the information provided by the observer for ILA on its activities relating to space law (see A/AC.105/C.2/108), including information on preparation for the upcoming seventy-seventh ILA Biennial Conference, to be held in Johannesburg, South Africa, from 7 to 11 August 2016.

50. The Subcommittee welcomed the information provided by the observer for the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation, including information on a seminar on space law held in Madrid from 10 to 12 November 2015 and the Ibero-American Conference on Aeronautic and Space Law and Commercial Aviation, held in Asunción from 30 September to 2 October 2015.

51. The Subcommittee welcomed the information provided by the observer for Intersputnik on its activities relating to space law, including information on the professional support that Intersputnik provided to its partners and on celebratory events planned for the upcoming forty-fifth anniversary of the organization, to be held in Moscow in November 2016.

52. The Subcommittee noted that the Preparatory Commission for the Establishment of the International Registry for Space Assets had held its fourth session in Rome on 10 and 11 December 2015, and that the Preparatory Commission had successfully finalized the text of the Registry Regulations.

53. 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-sixth session, on their activities relating to space law.

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

54. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 6, entitled “Status and application of the five United Nations treaties on outer space”, as a regular item on its agenda.

55. The representatives of Austria, Canada, Cuba, Germany, Greece, Italy, the Netherlands, the Republic of Korea, the Russian Federation and the United States made statements under agenda item 6. Statements were made by the representative of Namibia on behalf of the Group of 77 and China, and by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

56. At its 917th meeting, on 4 April, the Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space under the chairmanship of Bernhard Schmidt-Tedd (Germany). The Subcommittee thanked the outgoing Chair, Jean-François Mayence (Belgium), for his diligent efforts, guidance and leadership in moving the work of the Working Group forward.

57. At its 934th meeting, on 14 April 2016, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex I to the present report.

58. The Subcommittee had before it the following:

(a) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2016 (A/AC.105/C.2/2016/CRP.3);

(b) Note by the Secretariat containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, received from Belgium (A/AC.105/C.2/2016/CRP.6);

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

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

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

(a) The Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (Outer Space Treaty), had 104 States parties and had been signed by 25 additional States;

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

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

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

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

60. 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.2/2016/CRP.3.

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

62. The Subcommittee noted the fortieth anniversary of the Registration Convention, a key instrument in the application and implementation of obligations under the United Nations treaties on outer space. That Convention, which was adopted on 12 November 1974, was opened for signature on 14 January 1975 and entered into force on 15 September 1976, provided the basis for the registration of objects launched into outer space.

63. Some delegations expressed the view that the United Nations treaties on outer space formed the primary legal and normative framework for supporting the increasing scale of space activities and for promoting international cooperation in the peaceful uses of outer space. Those delegations welcomed the growing adherence to the United Nations treaties on outer space and encouraged those States that had not yet become parties to the treaties to consider doing so.

64. Some delegations expressed the view that, in preparation for the celebration of the fiftieth anniversary of the Outer Space Treaty, in 2017, it was desirable to review, update and strengthen as necessary the five outer space treaties, and to do so in such a way as to promote and develop the fundamental principles of the international legal regime, including the non-militarization and non-appropriation of outer space.

65. Some delegations expressed the view that it was necessary to review, update and strengthen the five United Nations treaties on outer space with the aim of invigorating the guiding principles that govern the space activities of States and filling any legal lacunae in the current international legal regime on outer space, reinforcing the guiding principles that underpin the space activities of States, strengthening international cooperation and facilitating the exchange of space technology and expertise for the benefit of all people.

66. The view was expressed that the rule of law in space was the cornerstone that could ensure the use of outer space for peaceful purposes, and that the five United Nations treaties on outer space had been instrumental in promoting space activities since their inception.

67. Some delegations expressed the view that the five outer space treaties must be adhered to and implemented in accordance with relevant Security Council resolutions and that States should work together to fully implement those Security Council resolutions.

68. The view was expressed that the launch by the Democratic People's Republic of Korea using ballistic missile technology was a serious violation of relevant Security Council resolutions and was in contravention of the spirit and purpose of the Outer Space Treaty. According to this view, the accession by the Democratic People's Republic of Korea to the Rescue Agreement and the Liability Convention should not be abused to justify its continued non-compliance with relevant Security Council resolutions and the Outer Space Treaty. The view was also expressed that the commitment of the Democratic People's Republic of Korea to the faithful implementation of its international obligations was questionable, given the country's past record of non-compliance.

69. Some delegations expressed the view that it was essential to ensure that all States adhere to and implement the five United Nations treaties on outer space, which had enabled States and their people to enjoy tremendous benefits from space

activities. Those delegations were of the view that in cases where legal uncertainties might be found in those treaties, non-legally binding instruments could be used by those conducting space activities.

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

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

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

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

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

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

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

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

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

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

79. 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 of resource extraction from the Moon and other celestial bodies, to ensure that States adhered to the principles of equality of access to space and that the benefits of the exploration and use of outer space were enjoyed by all humanity.

80. The view was expressed that national legislation on resource extraction and use did not preclude a multilateral approach or mechanism being developed in the future, but that at present such a multilateral approach would be premature, especially given the uncertainty about whether such activities might become technically or economically viable.

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

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

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

**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 70/82, the Subcommittee considered, as a regular item on its agenda, agenda item 7, 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 Algeria, Canada, Chile, France, Indonesia, Iran (Islamic Republic of), Mexico, the Netherlands, South Africa and the United States made statements under agenda item 7. Statements were also made by the representatives of Chile on behalf of the Group of Latin American and Caribbean States and Namibia on behalf of the Group of 77 and China. The observer for ITU also made a statement. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

86. At its 917th meeting, on 4 April 2016, 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 to General Assembly resolution 70/82, the Working Group was convened to consider only matters relating to the definition and delimitation of outer space.

87. The Working Group held 5 meetings. The Subcommittee, at its 933rd meeting, on 14 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.16 and 17);

(b) Note by the Secretariat on questions on suborbital flights for scientific missions and/or for human transportation (A/AC.105/1039/Add.6);

(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 and Add.1);

(d) A conference room paper entitled “Replies from the Chair of the Space Law Committee of the International Law Association to the Committee on the

Peaceful Uses of Outer Space on certain legal aspects of suborbital flights” (A/AC.105/C.2/2016/CRP.10).

89. The Subcommittee heard the following presentations:

(a) “Emerging space activities and civil aviation”, by the representative of Mexico;

(b) “The need to elaborate a sui generis regime concerning the geostationary orbit”, by the representative of Indonesia;

(c) “The definition and delimitation of outer space and the safety of aerospace operations”, by the observer for the International Association for the Advancement of Space Safety;

(d) “World Radiocommunication Conference 2015 outcome: some decisions related to space services”, by the observer for ITU.

90. The Subcommittee noted with satisfaction the successful conclusion of the second International Civil Aviation Organization and United Nations Office for Outer Space Affairs Aerospace Symposium, held in Abu Dhabi from 15 to 17 March 2016. Co-organized with the Government of the United Arab Emirates, the Symposium had been attended by nearly 200 participants representing international intergovernmental organizations, government agencies, non-governmental organizations and commercial entities. The Subcommittee also noted that the Symposium had succeeded in strengthening the dialogue among stakeholders in the air and space transportation communities and between the relevant legal and regulatory actors, and that it represented a unique and continuing bilateral inter-agency coordination effort by two central United Nations entities. The Subcommittee further noted that the third Symposium, to be held in Vienna in the first half of 2017, would complete the series.

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. 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.

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



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

94. The view was expressed that in the absence of the definition and delimitation of outer space, a common approach could be followed according to which confirmation of the launch of an object into outer space and the period of time during which it remained there would serve to define space activity.

95. The view was expressed that the existing practice of operating spacecraft and satellites in orbit at a minimum perigee altitude of 100 to 150 km seemed to be acceptable to all States, and that the divergent interests of States with regard to the definition and delimitation of outer space could be satisfied by the agreement to regulate the minimum orbital flight level between 100 and 150 km, while recognizing that operations at less than that flight level should be subject to agreements among States whose space objects overfly the territory of other States.

96. The view was expressed that an altitude of 110 km above sea level might be considered as the delimitation of outer space.

97. The view was expressed that the matter of the definition and delimitation of outer space was based not on the criterion of altitude or the place of an object, but rather on the functional approach, when space law would apply to any activity aimed at putting a space object in Earth orbit or beyond in outer space. The delegation expressing that view was also of the view that that approach was fully consistent with the Registration Convention, in particular its article IV, and with the Outer Space Treaty and the Liability Convention, whose provisions did not deal with the criterion of altitude. That delegation was also of the view that the functional approach to the application of space law had been employed by many major spacefaring States, including in their national legislation.

98. 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.

99. 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.

100. Some delegations expressed the view that progress in the definition and delimitation of outer space could be achieved through cooperation with the International Civil Aviation Organization.

101. The view was expressed that by establishing a definition of outer space, the Subcommittee might indirectly provide a definition of airspace, which would lie outside the scope of its mandate.

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

103. 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.

104. 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.

105. 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. The delegations expressing that view was also of the view that the recommendation made by the Subcommittee at its thirty-ninth session on some aspects concerning the use of the geostationary orbit (A/AC.105/738, annex III) should be further developed by the Subcommittee for the purpose of promoting international cooperation that ensured the application of the principle of equitable access for all States, taking into account the needs of developing countries and the geographical position of certain countries.

106. The view was expressed that the Subcommittee should be requested to further develop some aspects concerning the use of the geostationary orbit for the purpose of promoting international cooperation, including by defining the special needs of developing countries and the geographical situation of particular countries, which should also cover equatorial countries.

107. 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, Convention and 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.

108. The view was expressed 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.

109. Some delegations expressed the view that the utilization by States of the geostationary orbit on the basis of “first come, first served” 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.

110. 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.

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

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

112. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 8, entitled “National legislation relevant to the peaceful exploration and use of outer space”, as a regular item on its agenda.

113. The representatives of Australia, Chile, Indonesia, Japan, Mexico, the Russian Federation and the United Arab Emirates made statements under agenda item 8. The observer for ESA 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.

114. The Subcommittee had before it the following:

(a) Conference room paper containing information submitted by Austria on its national space legislation (A/AC.105/C.2/2016/CRP.21);

(b) Conference room paper submitted by ESA entitled “The European Space Agency and the promotion of national space legislation” (A/AC.105/C.2/2016/CRP.23).

115. The Subcommittee heard the following presentations made under the agenda item:

(a) “The approach of the United Arab Emirates to the development of a regulatory framework for outer space”, by the representative of the United Arab Emirates;

(b) “Dutch regulation: unguided satellites”, by the representative of the Netherlands.

116. The Subcommittee noted various activities of member States in reviewing, strengthening, developing or drafting their national space laws and policies and in reforming or establishing governance of national space activities. In that connection, the Subcommittee also noted that those activities were aimed at improving the management and regulation of space activities, reorganizing national space agencies, making the space activities of governmental and non-governmental organizations more competitive, increasing the involvement of academia in policy formulation, better responding to challenges posed by the development of space activities, in particular challenges relating to the management of the space environment, and better implementing international obligations.

117. 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, particularly with respect to the responsibilities of States regarding the authorization and supervision of non-governmental entities conducting space activities.

118. 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. In that regard the Subcommittee noted that national space legislation played a key role in supporting innovation, promoting entrepreneurship and private investment, maintaining and strengthening the space science industry and technological advancement, and fostering general economic development.

119. The Subcommittee noted with satisfaction the increasing number of space-related international cooperation programmes and projects and the development of space legislation by States, as national regulatory frameworks played a significant role in regulating and fostering such cooperative activities. In that regard the Subcommittee noted that international cooperative mechanisms such as ESA could support the delivery of technical and legal assistance to States seeking to enact national space legislation.

120. The Subcommittee agreed that the discussions under the 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.

121. 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

122. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 9, entitled “Capacity-building in space law”, as a regular item on its agenda.

123. The representatives of Chile, China, Costa Rica, France, Germany, Greece, India, Indonesia, Japan, the Netherlands and the United Arab Emirates made statements under agenda item 9. The representative of Argentina made a statement on behalf of the Group of 77 and China, and Chile made a statement on behalf of the Group of Latin American and Caribbean States. The observer for ILA 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.

124. The Subcommittee had before it the following:

(a) Conference room paper containing a directory of education opportunities in space law (A/AC.105/C.2/2016/CRP.8);

(b) Conference room paper containing information submitted by Austria on its actions and initiatives to build capacity in space law (A/AC.105/C.2/2016/CRP.22).

125. The Subcommittee heard a presentation made by the representative of Japan entitled “Japan’s capacity-building in space law: recent progress”.

126. The Subcommittee agreed that capacity-building, training and education in space law were of paramount importance to national, regional and international efforts to further develop the practical aspects of space science and technology, 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.

127. 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.

128. The Subcommittee recalled the importance of promoting regional and interregional cooperation and capacity-building through organizations such as APSCO and ESA, and through regional forums such as the Asia-Pacific Regional Space Agency Forum (APRSAF), the Space Conference of the Americas and the African Leadership Conference on Space Science and Technology for Sustainable Development.

129. 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.

130. The view was expressed that the constant increase in the number of space actors and space activities made knowledge of space law ever more important. Capacity-building in space law had as its aim to raise awareness among new space actors of the legal provisions applicable to their activities and to create links between political actors, space agencies and the academic sector.

131. The view was expressed that educational institutions should offer courses on space law with the aim of collaborating in the progressive development of that field. In this connection, the delegate expressing that view drew attention to a course on space law offered by the Faculty of Law of the University of Chile. This branch of law was taught by the Satellite Reception Centre at the University of Concepción and a postgraduate course on the subject lasting from July to September would be offered by the Latin American Social Sciences Institute (FLACSO) with international support.

132. The Subcommittee noted with appreciation that the tenth United Nations workshop on space law would be held at the United Nations Office at Vienna from 5 to 8 September 2016. The workshop would address space law and policy, and would cover transparency and confidence-building measures in outer space activities.

133. The Subcommittee noted that the workshops organized by the Office for Outer Space Affairs in cooperation with host countries were a valuable contribution to capacity-building in space law and international cooperation in the peaceful uses of outer space.

134. 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.

135. Some delegations requested the Office for Outer Space Affairs to strengthen its efforts to support capacity-building in space law in the Latin American and Caribbean region, in particular through the organization of seminars or workshops.

136. The Subcommittee noted with satisfaction that the Office for Outer Space Affairs had updated the directory of education opportunities in space law (A/AC.105/C.2/2016/CRP.8), 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.

137. The Subcommittee recommended that States members and permanent observers of the Committee inform the Subcommittee, at its fifty-sixth 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**

138. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 10, 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.

139. The representatives of Canada, Chile, France, Indonesia, Mexico, the Netherlands, the United Arab Emirates and the United States made statements under agenda item 10. The representative of Chile 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.

140. 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.

141. The Legal Subcommittee recalled with satisfaction the extension to 2017 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 (see A/AC.105/1065, annex II, para. 9).

142. The Legal Subcommittee took note of the fact that the Scientific and Technical Subcommittee had encouraged States and intergovernmental organizations involved in the use of nuclear power sources in outer space to consider possible enhancements to the technical content and scope of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space adopted by the General Assembly in its resolution 47/68 (see A/AC.105/1109, para. 199).

143. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in regulatory activity associated with the use of nuclear power sources in outer space and to adapt national legislation to relevant international standards. Those delegations were also of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial and not detrimental to humanity.

144. 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 reported failures and collisions, which posed a high risk to humanity and to the environment.

145. Some delegations expressed the view that there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote the development of a legally binding framework for the use of nuclear power sources in outer space.

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

147. Some delegations expressed the view that the Principles should be updated taking into account technological developments, as the scope of the Principles was limited and excluded promising applications, such as ion or electric propulsion, direct nuclear propulsion and mobile robotic technology based on using nuclear energy sources for surface exploration of celestial bodies.

148. Some delegations expressed the view that the Principles should be revised to ensure greater consistency with the Safety Framework for Nuclear Power Source Applications in Outer Space.

149. Some delegations expressed the view that the Principles should be revised because their reference frameworks for radiological protection had evolved.

150. Some delegations expressed the view that a revision of the Principles was not warranted.

151. Some delegations expressed the view that it was necessary to revisit the Principles and assess whether a revision was required in order to keep up with the latest developments in technology and radiation protection standards.

152. The view was expressed that a review panel, composed of competent and relevant experts, should be established to perform such an assessment and submit its findings to the Legal Subcommittee.

153. The view was expressed that any proposal put forward by Member States in relation to the possible future revision of the Principles should not precede the input and consideration of the Scientific and Technical Subcommittee.

154. The view was expressed that the establishment of an independent nuclear safety review panel to regulate the use of nuclear power sources in outer space could be considered.



## **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**

155. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 11, 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.

156. The representatives of Brazil, Chile, Germany, Iran (Islamic Republic of), Japan, the Netherlands, the Russian Federation and the United States made statements under agenda item 11. The representative of Chile 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.

157. The Subcommittee had before it a conference room paper on the updates made to the compendium of space debris mitigation standards adopted by States and international organizations (A/AC.105/C.2/2016/CRP.16).

158. 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.

159. 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. The Subcommittee also noted that some States were using the IADC Space Debris Mitigation Guidelines, the European Code of Conduct for Space Debris Mitigation and International Organization for Standardization standard 24113:2011 (Space systems: space debris mitigation requirements) as references in their regulatory frameworks for national space activities.

160. 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.

161. 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.

162. The Subcommittee expressed its satisfaction with the compendium of space debris mitigation standards adopted by States and international organizations, which had been developed by Canada, the Czech Republic and Germany and were being maintained on a dedicated web page of the website of the Office for Outer Space

Affairs. The Subcommittee noted with appreciation that making the information on the compendium available to the Scientific and Technical Subcommittee for consideration at its fifty-second and fifty-third sessions had contributed to increased coordination in the work of the Subcommittees.

163. Some delegations expressed satisfaction over the increasing cooperation between the Legal Subcommittee and the Scientific and Technical Subcommittee.

164. Some delegations expressed the view that the Legal Subcommittee should undertake a legal analysis of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space.

165. The view was expressed that additional guidance on practices that would minimize debris production and promote the sustainability of outer space activities should be developed without delay.

166. Some delegations expressed the view that it was necessary to examine the compendium of space debris mitigation standards adopted by States and international organizations in order to determine whether and how the information contained in the compendium could be used to update the Space Debris Mitigation Guidelines of the Committee.

167. Some delegations expressed the view that the Legal Subcommittee should develop legally binding rules for space debris mitigation.

168. The view was expressed that the transformation of technical debris mitigation guidelines into a legally binding instrument was not necessary, as spacefaring nations were motivated to reduce space debris by their self-interest in preserving the safety and sustainability of space activities.

169. The view was expressed that non-binding international principles and guidelines on space debris mitigation should be flexible and easily adaptable to new technological and situational circumstances and that it was not necessary to establish debris mitigation standards in international law at present.

170. The view was expressed that a non-binding approach could be effective and could benefit all nations if implemented domestically through policies, regulations and standards.

171. The view was expressed that voluntary instruments were not sufficient for space debris mitigation.

172. 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.

173. Some delegations expressed the view that active removal of space debris was needed to ensure the long-term sustainability of outer space activities.

174. Some delegations expressed the view that addressing the issue of active removal required the clarification of a number of legal questions, such as jurisdiction over the space objects to be removed, legal status of space debris fragments, and the legal definition of space debris.

175. Some delegations expressed the view that a legally binding agreement regulating the active removal of space debris should be developed.

176. The view was expressed that the status of space objects should be considered before any physical action was taken with regard to those objects. The delegation expressing that view underscored the need to develop a legally binding agreement regulating the active removal of space objects or their fragments, and that such regulation should be acceptable to all parties concerned.

177. The view was expressed that possible alternatives to active removal should be presented to and discussed in the Subcommittee and that technology transfer agreements should be promoted. The delegation expressing that view stressed that the legal aspects of such technologies, including jurisdiction of the space objects to be removed, legal mechanisms to address the most relevant aspects of third-party removal initiatives, liability and associated costs, should be discussed.

178. The view was expressed that the issue of active space debris removal should be considered, taking into account the fact that space vehicles were predominantly the property of States and could be subject to intellectual property rights.

179. Some delegations expressed the view that the removal of large pieces of debris was necessary to prevent the proliferation of space debris and that such removal should be carried out by the space actors that were responsible for space debris generation.

180. The view was expressed that a voluntary international space debris fund could be established under the auspices of the Office for Outer Space Affairs in order to support activities to remove or mitigate current space debris, prevent the creation of future space debris and reduce the impacts of space debris. The delegation expressing that view was also of the view that Member States, in particular leading States in space activities, could consider allocating a percentage of their budget to such a voluntary fund.

181. Some delegations expressed the view that information on actions to reduce the creation of space debris should be made available to the Legal Subcommittee, in particular by those States that were largely responsible for creating space debris and by the States that had the capacity to take action with regard to space debris mitigation.

182. The view was expressed that reporting on the status of implementation of the Space Debris Mitigation Guidelines of the Committee would contribute to improving transparency and developing confidence-building measures among States.

183. Some delegations expressed the view that the Subcommittee should consider the issue of space debris in connection with the growing number of deployments of small satellites.

184. 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 new concept of megaconstellations.

185. Some delegations expressed the view that the Subcommittee should pay greater attention to space debris derived from space platforms with nuclear power

sources on board and from the collision of such platforms with space debris, and to technology for monitoring space debris.

186. Some delegations expressed the view that the Subcommittee should pay greater attention to space debris in the geostationary orbit.

187. 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**

188. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 12, entitled “General exchange of information on non-legally binding United Nations instruments on outer space”, as a single issue/item for discussion.

189. The representatives of Chile, the Czech Republic, France, Germany, Japan and the United States made statements under agenda item 12. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

190. The Subcommittee had before it the following documents:

(a) Conference room paper prepared by Japan entitled “Updated questionnaire on the general exchange of information on non-legally binding United Nations instruments on outer space” (A/AC.105/C.2/2016/CRP.12);

(b) Conference room paper prepared by Japan entitled “Compendium: mechanisms adopted by States and international organizations in relation to non-legally binding United Nations instruments on outer space” (A/AC.105/C.2/2016/CRP.13).

191. The Subcommittee noted that the exchange of information under the agenda item had become more important in view of new global challenges, namely the rapid development of space activities and the diversification of space actors. Non-legally binding United Nations instruments related to space activities addressed those challenges and played an important role by supporting the United Nations treaties on outer space.

192. The Subcommittee took note with appreciation of two documents that the delegation of Japan had made available to the Subcommittee, at its current session: a compendium containing responses from States on mechanisms adopted in relation to non-legally binding United Nations instruments on outer space (A/AC.105/C.2/2016/CRP.13) and an updated questionnaire on the general exchange of information on non-legally binding United Nations instruments on outer space (A/AC.105/C.2/2016/CRP.12), which contained two templates for

collecting information on the mechanisms adopted to implement the non-legally binding United Nations instruments, one for States members of the Committee and the other for international intergovernmental organizations.

193. The Subcommittee welcomed the compendium as a valuable document that facilitated the exchange of views and the sharing of information on the implementation of non-legally binding United Nations instruments.

194. The Subcommittee requested the Secretariat to make the compendium available on a dedicated page of the website of the Office for Outer Space Affairs and to invite States members of the Committee and international intergovernmental organizations having permanent observer status with the Committee to submit their responses to the Secretariat for inclusion in the compendium.

195. The view was expressed that resolutions and principles adopted by the General Assembly and its subsidiary bodies were essential for demonstrating best practices and interpretation of general legal terms, and as such represented a strong political commitment and a method for developing best practices. The delegation expressing that view also stated that amidst the rapid advancement of space technology, the expertise of the Legal Subcommittee had to be taken into account in order to ensure that there was consistency in the enhancement of space law. The same delegation further expressed the view that consideration of non-legally binding best practices and methods might eventually lead to legally binding instruments.

196. The view was expressed that the exchange of information on non-legally binding United Nations instruments related to space activities was especially welcome in view of the recommendation of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities, expressed in its report of 2013, that Member States take measures to implement, to the greatest extent practicable, principles and guidelines endorsed on the basis of consensus by the Committee on the Peaceful Uses of Outer Space and the General Assembly (see A/68/189).

197. Some delegations expressed the view that the Principles Relating to Remote Sensing of the Earth from Outer Space served as an important example of a non-legally binding United Nations instrument on outer space, since in spite of their non-legally binding character they were widely credited with fostering a successful international regime in remote sensing to the benefit of all States.

198. The view was expressed that the International Charter on Space and Major Disasters served as another excellent example of a non-legally binding mechanism that demonstrated the importance of such mechanisms for furthering international cooperation in the peaceful exploration and use of outer space.

199. The view was expressed that it was necessary to make better use of non-legally binding instruments. The delegation expressing that view also expressed the view that those instruments complemented the existing legally binding international legal framework governing the peaceful use of outer space. The same delegation was of the view that States and international intergovernmental organizations should be encouraged to contribute more to the exchange of information on non-legally binding instruments.

200. The view was expressed that one of the most important roles international lawyers could play in facilitating successful international cooperation was that of

identifying the optimal cooperative mechanism for any given case, including when a non-legally binding mechanism might facilitate the objectives of cooperation better than a treaty.

201. The view was expressed that, regardless of legal instruments, whether binding or non-binding, spacefaring nations should demonstrate their responsible attitude and approach by voluntarily declaring their intention to keep using outer space exclusively for peaceful purposes.

202. The Subcommittee agreed that the item entitled “General exchange of information on non-legally binding United Nations instruments on outer space” should be retained on the agenda of the Subcommittee at its fifty-sixth session, to be held in 2017.

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

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

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

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

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

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

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

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

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

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

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

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

214. The view was expressed that space traffic management should be examined in conjunction with the notion of fault and with article III of the Liability Convention, which provided that in the event of damage caused elsewhere than on the surface of the Earth to a space object of one launching State or to person or property on board such a space object by a space object of another launching State, the latter shall be

liable only if the damage is due to its fault or the fault of persons for whom it was responsible.

215. The view was expressed that, prior to the elaboration of an international legal framework for space traffic management, an accurate United Nations-based information-sharing mechanism should be established comprising a database on objects and events in space and respective procedures for its operation.

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

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

217. Pursuant to General Assembly resolution 70/82, the Subcommittee considered agenda item 14, entitled “General exchange of views on the application of international law to small satellite activities”, as a new single issue/item for discussion on its agenda.

218. The representatives of Australia, Austria, Belgium, Brazil, Costa Rica, Germany, Indonesia, Iran (Islamic Republic of), Italy, Japan, Mexico, the Netherlands, Slovakia, the United Kingdom and the United States made statements under agenda item 14. The representative of Argentina also made a statement on behalf of the Group of 77 and China. The observers for ESA and ITU also made statements under the agenda item. During the general exchange of views, statements relating to the item were made by the representatives of other member States.

219. For its consideration of the item, the Subcommittee had before it a conference room paper entitled “The European Space Agency and small satellite activities” (A/AC.105/C.2/2016/CRP.19).

220. The Subcommittee noted with satisfaction the inclusion of the new item on its agenda and agreed that it 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.

221. The Subcommittee recognized 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, education 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.

222. The Subcommittee also 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.



223. Some delegations expressed the view that the growing number of small satellites could affect the long-term sustainability of activities in outer space. In this regard, those delegations noted challenges in relation to control and manoeuvrability, as well as debris production, involved in such space activities, and the need to take into account specific provisions regarding lifespan, interference, registration and end-of-life strategies. Those delegations also noted that non-governmental actors operating small satellites should be well informed about the international regulations governing the use of outer space.

224. The Subcommittee noted with regard to small satellite activities a number of legal challenges, as well as existing and emerging practices and regulatory frameworks. The Subcommittee also noted the programmes of States and international organizations in the field of the development and use of small satellites.

225. The Subcommittee agreed that in order to ensure the safe and responsible use of outer space in the future, it was important to include small satellite missions appropriately in the scope of application of international and national regulatory frameworks.

226. Some delegations expressed the view that all international rights and obligations of States with respect to large satellites were equally relevant for the conduct of space activities with the use of small satellites, and thus the United Nations treaties and principles on outer space, the ITU Constitution and Convention and Radio Regulations, as well as certain non-binding instruments, such as the Space Debris Mitigation Guidelines, were providing the legal framework to be applied to various space objects, including small satellites.

227. Some delegations expressed the view that it was important to ensure the safety and transparency of the operation of small satellites without hampering access to space and new technologies.

228. The Subcommittee was informed about the ITU symposium and workshop on small-satellite regulation and communication systems, held in Prague from 2 to 4 March 2015. The event had resulted in the adoption of the “Prague declaration on small-satellite regulation and communication systems”, in which participants recognized the urgent need for the small-satellite community to adhere to international laws, regulations and procedures, in particular those established by the General Assembly, the Committee on the Peaceful Uses of Outer Space and ITU with respect to the registration of objects launched into outer space, radiofrequency coordination and the registration of satellite network frequency assignments, and to comply with existing space debris mitigation guidelines. In the same document the participants recognized that it was important for the small-satellite community to be prepared to implement existing and newly developing recommendations and practices supporting the long-term sustainability of outer space activities.

229. The Subcommittee noted with satisfaction that the Office for Outer Space Affairs continued to implement its Basic Space Technology Initiative, the aim of which was to promote education and capacity-building in space technology development and to raise awareness of the need to comply with national and international laws and standards relating to small satellites.

230. The Subcommittee recalled with satisfaction that the handout prepared by the Office for Outer Space Affairs and ITU in 2015 entitled “Guidance on space object registration and frequency management for small and very small satellites” had been made available on the website of the Office. The Subcommittee noted that the document had set out the main regulatory requirements for very small satellites, such as authorization, registration, frequency management and debris mitigation, and agreed that its practical value would provide for continuous awareness of the small-satellite community concerning the legal framework of space activities. The Subcommittee agreed that the Office and ITU should continue their cooperation in that field.

231. The Subcommittee requested the Secretariat to prepare a questionnaire, to be addressed to member States and permanent observers of the Committee, containing a set of questions addressing the practice of the development and use of small satellites, as well as policy and legal aspects of their use. The Subcommittee noted that the Secretariat would present the draft questionnaire to the Committee in a conference room paper at its fifty-ninth session, in June 2016.

### **XIII. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space**

232. Pursuant to General Assembly resolution 70/82, 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). In accordance with the workplan for 2016, the Subcommittee continued to examine responses received from member States.

233. The representatives of Algeria, China, France, Germany, Japan, the Netherlands, the Russian Federation and the United States 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.

234. At its 917th meeting, on 4 April 2016, 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 933rd meeting, on 14 April 2016, the Subcommittee endorsed the report of the Chair of the Working Group, contained in annex III to the present report.

235. 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 information received from Belgium, Poland, Thailand and Turkey, as well as from the World Meteorological Organization (A/AC.105/C.2/109);

(b) 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.2/2016/CRP.14);

(c) Conference room paper on responses by Member States to the set of questions provided by the Chair of the Working Group on International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space, containing information received from France and Japan (A/AC.105/C.2/2016/CRP.18).

236. The Subcommittee noted the breadth and diversity of the 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 African Leadership Conference on Space Science and Technology for Sustainable Development, APRSAF and the Space Conference of the Americas.

237. 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.

238. 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.

239. The view was expressed that a summary of the lessons learned over the 50 years of international cooperation in outer space should be integrated into the report of the Working Group in order to explain why certain mechanisms were preferable in certain circumstances. The delegation expressing that view also encouraged member States to share the lessons they had learned from their experiences in international cooperation in the peaceful uses of outer space.

240. The view was expressed that the Group on Earth Observations, a voluntary, intergovernmental framework, was an example of multilateral cooperation that functioned without a specific legally binding framework. It had been designed for the purpose of developing a comprehensive and sustainable global Earth observation system of systems, with the support of the Committee on Earth Observation Satellites. The delegation expressing that view also stated that APRSAF was another example of a non-legally binding platform that was open and flexible and that enabled the participation of diverse stakeholders in establishing cooperation projects to address regional issues through concrete actions.

241. The view was expressed that Earth observation projects impacting climate change should be carried out in accordance with the Paris Agreement, signed on 12 December 2015 at the twenty-first session of the Conference of the Parties to the United Nations Framework Convention on Climate Change, which would be opened for signature on 22 April 2016 in New York.

242. Some delegations expressed the view that both ESA and the ExoMars 2016 mission, a joint project between ESA and the Russian Federal Space Agency

(Roscosmos), were examples of successful international cooperation. The Agency and its mission with Roscosmos demonstrated a willingness to understand and take into account the motivations and interests of all partners in order to ensure solidarity and foster the long-term partnerships essential for successful international cooperation.

243. The view was expressed that international cooperation in joint space projects enabled the development of capabilities at the national level and fostered the transfer of knowledge and the promotion of technology and its applications for the purpose of socioeconomic development.

244. The view was expressed 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.

245. The view was expressed that mechanisms for international space cooperation and the enhancement of the rule of law in outer space had been shown, in practice, to be complementary in nature: international cooperation served as an important means for advancing the rule of law in outer space, while the rule of law provided an effective institutional guarantee of international cooperation.

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

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

247. Pursuant to General Assembly resolution 70/82, 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-sixth session”, as a regular item on the agenda. Under the item the Subcommittee also considered matters related to the organization of work.

248. The representatives of Argentina, Austria, Belgium, Brazil, Chile, Costa Rica, Germany, Greece, Iran (Islamic Republic of), Mexico, the Netherlands, the Russian Federation, the United Arab Emirates and the United States made statements under agenda item 16. The observers for ESA and ILA also made statements. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

249. 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 and views on

legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee”, “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” and “General exchange of views on the application of international law to small satellite activities”, should be retained on the agenda of the Subcommittee at its fifty-sixth session.

250. The Subcommittee agreed that a new single issue/item for discussion, entitled “General exchange of views on potential legal models for activities in exploration, exploitation and utilization of space resources”, should be included on the agenda of the Subcommittee at its fifty-sixth session. The Subcommittee also agreed that the inclusion of that item would provide an opportunity for a constructive, multilateral exchange of views on such activities, including their economic aspects, among States members and permanent observers of the Committee.

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

*Regular items*

1. Adoption of the agenda.
2. Statement by the Chair.
3. General exchange of views.
4. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
5. Status and application of the five United Nations treaties on outer space.
6. Matters relating to:
  - (a) The definition and delimitation of outer space;
  - (b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.
7. National legislation relevant to the peaceful exploration and use of outer space.
8. Capacity-building in space law.

*Single issues/items for discussion*

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.

*Items considered under workplans*

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

(Work for 2017 as reflected in the multi-year workplan in the report of the Legal Subcommittee on its fifty-first session (A/AC.105/1003, para. 179))

*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-seventh session.

252. The view was expressed that the discussion under item 12 on the legal aspects of space traffic management should be held in close conjunction with the discussion concerning a mechanism for sharing information on objects and events in outer space.

253. The Subcommittee agreed that IISL and ECSL should once again be invited to organize a symposium, to be held during its fifty-sixth session, taking into account the need for equitable geographical and gender representation in the symposium.

254. Some delegations recalled the proposal by Germany for the renewal of the structure of the agenda and the organization of work of the Legal Subcommittee, as contained in document A/AC.105/C.2/L.293/Rev.2, and emphasized that the discussion on the future role of the Subcommittee as the prime international body for space law-making was important.

255. Some delegations expressed the view that the role of the Subcommittee as the principal international forum to promote and further develop space law should be maintained and enhanced.

256. Some delegations expressed the view that the Subcommittee should begin to consider forming a list of issues related to the legal aspects of space activities. In doing so, the Subcommittee could help to define its future directions and optimize its work.

257. Some delegations expressed the view that the Subcommittee could consider various aspects relating to the development and implementation of binding international norms and standards applicable to space activities.

258. The view was expressed that the current legal framework established by the United Nations treaties on outer space adequately met the needs of the international community in matters relating to outer space, and that the legal framework governing global space activities would be strengthened through increased

participation in and adherence to the existing United Nations treaties and principles on outer space.

259. The Subcommittee urged States that have not yet become parties to the international treaties governing the uses of outer space, in particular those that are members of the Committee, to give consideration to ratifying or acceding to those treaties in accordance with their national law and incorporating them into their national legislation.

260. Some delegations expressed the view that there should be increased synergy and cooperation between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to further enhance consistency in the work of the Committee and its Subcommittees and to further the understanding and application of existing legal instruments relating to space law.

261. The view was expressed that the Subcommittee, through an item on its agenda, could promote knowledge and understanding of the fact that the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee constituted a unique common platform for promoting international cooperation in the peaceful exploration and use of outer space at the global level, and were the only United Nations bodies to which the General Assembly had assigned the exclusive responsibility to work on all issues, including legal issues, pertaining to outer space.

262. The Subcommittee welcomed with appreciation the compendium of rules of procedure and methods of work related to the Committee on the Peaceful Uses of Outer Space and its subsidiary bodies, contained in conference room paper A/AC.105/C.2/2016/CRP.5 and prepared by the Secretariat in accordance with the request made by the Subcommittee and the Committee in 2015.

263. The Subcommittee noted that its fifty-sixth session had been tentatively scheduled to be held from 27 March to 7 April 2017.

## 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 917th meeting, on 4 April 2016, 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 5 to 14 April 2016, the Working Group held six meetings. The Working Group considered the following items:

(a) Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50): theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018;

(b) Set of questions on the status and application of the five United Nations treaties on outer space;

(c) Preparations for marking 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 (Outer Space Treaty) in 2017.

3. The Working Group had before it the following:

(a) Note by the Secretariat entitled “Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018” (A/AC.105/L.297);

(b) Conference room paper on the status of international agreements relating to activities in outer space as at 1 January 2016 (A/AC.105/C.2/2016/CRP.3);

(c) Conference room paper entitled “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 space governance” (A/AC.105/C.2/2016/CRP.4);

(d) Conference room paper containing responses to the set of questions provided by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space (A/AC.105/C.2/2016/CRP.6);

(e) Conference room paper containing an overview and final summary by the outgoing Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space on the responses from States members and permanent observers of the Committee to the set of questions provided by the Chair



and contained in the report of the Legal Subcommittee on its fifty-fourth session (A/AC.105/C.2/2016/CRP.7);

(f) Conference room paper entitled “Proposal for a UNISPACE+50 thematic priority to be considered by the Legal Subcommittee” (A/AC.105/C.2/2016/CRP.9);

(g) Conference room paper entitled “Updated proposal for a UNISPACE+50 thematic priority to be considered by the Legal Subcommittee” (A/AC.105/C.2/2016/CRP.20), which was a combination of A/AC.105/C.2/2016/CRP.9 and a proposal by Brazil that had been circulated as a non-paper;

(h) Statement by the Director of the Office for Outer Space Affairs on behalf of the UNISPACE+50 Steering Committee;

(i) Conference room paper on the Hague Space Resources Governance Working Group (A/AC.105/C.2/2016/CRP.17).

4. The Working Group had before it a non-paper by Brazil containing a proposal for a UNISPACE+50 thematic priority, as well as a non-paper and a revised non-paper by the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space on the set of questions on the status and application of those treaties.

5. At its sixth meeting, on 14 April, the Working Group adopted the present report.

## **II. Fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space: theme of the sessions of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee in 2018**

6. At the opening meeting, the Chair of the Working Group noted the progress made in the process to prepare for UNISPACE+50, in particular the agreement by the Scientific and Technical Subcommittee upon a set of six thematic priorities contained in the report of the Working Group of the Whole annexed to the report of the Scientific and Technical Subcommittee on its fifty-third session (A/AC.105/1109, annex I, para. 8). At the same meeting, the Chair of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space also recalled that the Working Group of the Whole had noted that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space could be an appropriate forum to further consider inputs by the Legal Subcommittee to the UNISPACE+50 thematic priorities.

7. The Chair of the Working Group further recalled that it was pertinent to combine the thematic priorities, as endorsed by the Scientific and Technical Subcommittee at its fifty-third session in 2016, with relevant legal perspectives, and that the Committee, its Scientific and Technical Subcommittee and its Legal Subcommittee should coordinate and cooperate in arriving at a common output through the process to prepare for UNISPACE+50.

8. At the opening meeting, the Director of the Office for Outer Space Affairs, in her capacity as Chair of the UNISPACE+50 Steering Committee, informed the Working Group on the progress of the preparations for UNISPACE+50. The Steering Committee had been established pursuant to General Assembly

resolution 70/82, and was composed of the members of the bureaux of the Committee and its subsidiary bodies (the Group of 15), the chairs of the working groups of the Committee and its subsidiary bodies, and the Director of the Office.

9. The Working Group also noted that the UNISPACE+50 Steering Committee had adopted its terms of reference, which had been made available to the Subcommittee as an annex to the statement by the Director of the Office on behalf of the Steering Committee.

10. In accordance with the plan of work for UNISPACE+50 endorsed by the Committee at its fifty-eighth session in 2015 (see A/AC.105/L.297), and on the basis of the relevant proposal submitted to the Legal Subcommittee (see A/AC.105/C.2/2016/CRP.20), the Working Group recommended adopting the following thematic priority, summarized below:

*Legal regime of outer space and global space governance:  
current and future perspectives*

Objective: Promote the universality of the five United Nations treaties on outer space. Assess the state of affairs of those treaties and their relationship with other relevant international instruments, such as principles, resolutions and guidelines governing space activities. Analyse the effectiveness of the legal regime of outer space in the twenty-first century, with a view to identifying areas that may require additional regulation. Conduct an evaluation by:

(a) Developing the questionnaire of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space to encompass an assessment of the legal regime of outer space as a pillar of global space governance. The questionnaire should be used in the period leading up to 2018 to assist the Legal Subcommittee in addressing the status and scope of, and possible gaps in, the legal regime of outer space;

(b) Studying potential future legal and institutional initiatives intended to ensure that outer space is explored and used for peaceful purposes and that access to outer space remains open and free for the benefit of all countries, in order to ensure that international space law is a relevant part of global space governance in the twenty-first century in the light of the significant scientific developments and technical advances that have affected space activities;

(c) Studying legal mechanisms to foster an international regime of responsibility and liability to cope with present and future challenges to the safety, security and sustainability of outer space activities, including mechanisms for space traffic management and an enhanced exchange of information on space objects and events. Specific consideration is to be given to current practical concerns of the international community, such as in-orbit collisions and interferences. In particular, there should be an assessment of the need for enhanced registration and notification procedures and their institutional requirements under the registration and notification platform maintained by the Office for Outer Space Affairs;

(d) Identifying, by 2018, the criteria for developing, by 2020, a guidance document to be issued by the Committee on the Peaceful Uses of Outer Space with essential information on the state of affairs of the legal

regime governing outer space, including relevant instruments applied through national regulatory frameworks and international mechanisms for cooperation. Such a document should serve as valuable guidance for States wishing to become a party to the five United Nations treaties on outer space; and

(e) Considering means to strengthen the Legal Subcommittee as the prime multilateral body with mandate to promote the progressive development of international space law, including procedural and institutional improvements and closer cooperation with the Scientific and Technical Subcommittee.

11. The Working Group noted that this thematic priority would form part of a joint consolidated list of thematic priorities of the Scientific and Technical Subcommittee and the Legal Subcommittee, to be put before the Committee at its fifty-ninth session, to be held from 8 to 17 June 2016, for the Committee's further consideration and final agreement. The Secretariat was requested to prepare a conference room paper containing the thematic priorities, proposals for workplans and deliverables for those thematic priorities in order to assist States members of the Committee to prepare for UNISPACE+50.

12. The Working Group commended the Office for Outer Space Affairs for its efficient preparation of the documentation in preparation for UNISPACE+50, including by issuing a conference room paper on the Committee on the Peaceful Uses of Outer Space and global space governance (A/AC.105/C.2/2016/CRP.4). That paper contained a historical overview of the UNISPACE conferences and connected the resulting mandates and programmes with the way forward towards UNISPACE+50. The Working Group noted that the paper would be made available at the upcoming session of the Committee on the Peaceful Uses of Outer Space in 2016. It would subsequently be updated to reflect the suggestions made during the sessions of the Committee and its Subcommittees in 2016. The final version of the document would be circulated in the six official languages of the United Nations at the sessions of the Committee and its Subcommittees in 2017.

### **III. The set of questions on the status and application of the five United Nations treaties on outer space**

13. The Chair of the Working Group recalled the Subcommittee's agreement at its fifty-fourth session, in 2015, that the outgoing Chair of the Working Group, together with the Secretariat, present to the Working Group, for consideration at its current session, an updated overview of the responses to the set of questions contained in the report of the Legal Subcommittee on its fifty-fourth session (see A/AC.105/1090, annex I, appendix).

14. The Working Group heard an overview report by the outgoing Chair, as contained in conference room paper A/AC.105/C.2/2016/CRP.7, and noted that the final summary included, in addition to previous submissions, a written contribution contained in A/AC.105/C.2/2016/CRP.6 and a summary of the submissions received during the fifty-fourth session of the Subcommittee, in 2015, which had not yet been included (A/AC.105/C.2/2015/CRP.21 and A/AC.105/C.2/2015/CRP.25). The Working Group also noted additional contributions provided as oral statements at the meetings of the Working Group during the fifty-fourth session of the Legal Subcommittee, in 2015.

15. The Working Group expressed its sincere gratitude to the outgoing Chair, Jean-François Mayence (Belgium), for the updated overview and final summary of the responses to the set of questions received during his chairmanship, as well as for his able guidance and leadership in chairing the Working Group.

16. The Working Group further noted that the set of questions presented a valuable basis for discussion of the Working Group and could be further expanded to address the objective of the thematic priority for UNISPACE+50 proposed in paragraph 10 above. In this regard, the Chair of the Working Group presented a revised set of questions on the status and application of the five United Nations treaties on outer space, in relation to the process to prepare for UNISPACE+50.

17. The Working Group agreed to the revised proposal by the Chair on the set of questions, as contained in the appendix to the present report of the Working Group, 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 provide comments and responses to the questionnaire. Any replies received would be made available in a conference room paper.

18. The Working Group also noted that continued discussions would benefit from more written contributions from member States and international intergovernmental and non-governmental organizations having permanent observer status with the Committee, in particular in view of the preparations for UNISPACE+50 and the thematic priority proposed in paragraph 10 above.

#### **IV. Preparations for marking the fiftieth anniversary of the Outer Space Treaty in 2017**

19. The Working Group endorsed the following proposals, presented by the Chair of the Working Group, to mark the fiftieth anniversary of the Outer Space Treaty in 2017:

(a) A joint symposium of the International Institute of Space Law and the European Centre for Space Law, to be held at the fifty-sixth session of the Legal Subcommittee, in 2017, dedicated to the fiftieth anniversary of the Outer Space Treaty;

(b) A high-level panel discussion, to be held on the afternoon of the opening day of the sixtieth session of the Committee on the Peaceful Uses of Outer Space, in 2017, to provide legal, policy and scientific and technical perspectives related to the Outer Space Treaty, to be organized by the Office for Outer Space Affairs, taking into account equitable geographical and gender representation in the panel;

(c) A joint half-day panel discussion by the First and Fourth Committees of the General Assembly, to be held at United Nations Headquarters in New York in 2017 during the seventy-second session of the Assembly and organized jointly by the Office for Outer Space Affairs and the Office for Disarmament Affairs. It has been recommended that the discussion be held in a plenary meeting with interpretation and that it constitute a joint contribution by the First and Fourth Committees to the fiftieth anniversary of the Outer Space Treaty;

(d) The World Space Week events to be held in Vienna in 2017, to be organized by the Office for Outer Space Affairs and dedicated to the fiftieth anniversary of the Outer Space Treaty;

(e) A commemorative edition of the classic treaty booklet, to be published by the Office for Outer Space Affairs, containing all of the instruments set out in document ST/SPACE/61/Rev.1.

20. The Working Group noted that the Secretariat would enquire of the Office of Legal Affairs whether the five United Nations treaties on outer space could be included in the United Nations annual treaty event in 2017.

21. The Working Group requested the Secretariat to prepare a first draft declaration on the fiftieth anniversary of the Outer Space Treaty, to be made available as a working document of the fifty-sixth session of the Legal Subcommittee in all of the official languages of the United Nations in advance of the session. The draft declaration would be considered by the Legal Subcommittee and put before the Committee on the Peaceful Uses of Outer Space for endorsement at its sixtieth session. The declaration, the purpose of which would be to raise awareness of the benefits of the Outer Space Treaty, could then be annexed to the General Assembly resolution on international cooperation in the peaceful uses of outer space in 2017.

22. The Working Group recommended that the Subcommittee, at its fifty-sixth session, in 2017, reconvene the Working Group and that the Working Group continue to consider, on a priority basis, the preparations for UNISPACE+50.

## **Appendix**

### **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.

## Annex II

### **Report of the Chair of the Working Group on the Definition and Delimitation of Outer Space**

1. At its 917th meeting, on 4 April 2016, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on the Definition and Delimitation of Outer Space 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 70/82, 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.16 and 17);
  - (b) Note by the Secretariat on questions on suborbital flights for scientific missions and/or for human transportation (A/AC.105/1039/Add.6);
  - (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 and Add.1);
  - (d) A conference room paper entitled "Replies from the Chair of the Space Law Committee of the International Law Association to the Committee on the Peaceful Uses of Outer Space on certain legal aspects of suborbital flights" (A/AC.105/C.2/2016/CRP.10).
4. The Working Group discussed a number of replies contained in the documents referred to in paragraph 3 above.
5. The Working Group noted the proposal of the Chair to begin 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.
6. Some delegations expressed the view 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 definition and delimitation of outer space.
7. Some delegations expressed the view that there was no need to seek a legal definition or delimitation of outer space and that States should continue to operate under the current framework, which presented no practical difficulties, until such time as there was a demonstrated need and a practical basis for developing a definition or delimitation of outer space.



8. Some delegations expressed 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 sovereignty and international responsibility of States and the boundary between airspace and outer space.
9. Some delegations expressed the view that by defining outer space, the Working Group would also define airspace, even if indirectly. This would raise the question whether the Working Group had been mandated to do so, and would also raise practical questions such as what instruments would be needed to implement the new definitions and how those instruments would be enforced.
10. Some delegations expressed the view that there had never been any practical case that convincingly demonstrated a need to define and delimit outer space. The same delegations were also of the view that specific cases brought up by various actors conducting space activities could revitalize the discussion in the Working Group.
11. The view was expressed that, in order to progress in its work, the Working Group could continue to consider 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.
12. Some delegations expressed the view that, in relation to the definition and/or delimitation of outer space, it would be preferable to focus on the function and purpose of an object rather than on its location to determine if and when space law should govern its operation.
13. Some delegations expressed the view that the delimitation of outer space was closely connected with the management of space activities and that the Subcommittee and its Working Group should first concentrate on relevant matters that needed practical solutions, such as suborbital flights, the operation of drones and launches from flying objects.
14. The view was expressed that outer space might be delimited at an altitude of 110 km above sea level.
15. 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.
16. Some delegations expressed the view that the Working Group should continue to find consensus on the definition and delimitation of outer space and called upon States to make every effort necessary to reach a positive and legally sound solution.
17. Some delegations expressed the view that alternative approaches to the definition and delimitation of outer space should be given serious consideration.
18. The view was expressed that it became more important to find a practical solution for the definition and delimitation of outer space in view of the increasing involvement of the private sector in space activities. The delegation expressing that view was also of the view that the limits of airspace and outer space could be considered in a broader perspective, without linking the issue to criteria that had been under discussion for a long time.

19. The Working Group noted that paragraphs 3 and 4 of article II of the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets established that the Protocol “does not apply to objects falling within the definition of ‘aircraft objects’ under the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment except where such objects are primarily designed for use in space, in which case this Protocol applies even while such objects are not in space” and that the Protocol “does not apply to an aircraft object merely because it is designed to be temporarily in space”.

20. On the basis of its discussions, 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, through the Secretariat, taking into account the proposal made by the Chair as reflected in paragraph 5 above, States members and permanent observers of the Committee to provide their replies to the following questions:

(i) Does your Government or organization agree with the following statement? “Considering that States have different views on the definition and delimitation of outer space, it is important to find a common vision and to attempt to arrive at a commonly agreed standpoint, in a flexible manner, taking into account all positions and views of States”;

(ii) If so, how could the work to achieve the aims referred to in that statement be envisioned, in concrete and pragmatic terms? Please submit a concrete and detailed proposal;

(e) To invite, through the Secretariat, representatives of the World Meteorological Organization to present their position and view on the definition and delimitation of outer space, as contained in document A/AC.105/1112, at the meetings of the Working Group to be held during the fifty-sixth session of the Legal Subcommittee, in 2017.

## 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 917th meeting, on 4 April 2016, 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 8 and 14 April 2016. 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 Belgium, Poland, Thailand and Turkey, as well as from the World Meteorological Organization (A/AC.105/C.2/109);
  - (b) 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.2/2016/CRP.14);
  - (c) Conference room paper on responses by Member States to the set of questions provided by the Chair of the Working Group on International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space, containing information received from France and Japan (A/AC.105/C.2/2016/CRP.18).
4. The Working Group also took into account in its deliberations the documents made available at the fifty-second, fifty-third and fifty-fourth sessions of the Subcommittee.
5. 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 could 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 recalled that its work could provide a significant contribution to the 2018 thematic cycle of the Committee on the Peaceful Uses of Outer Space, its Scientific and Technical Subcommittee and its Legal Subcommittee dedicated to the fiftieth anniversary of the United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50).
6. The Working Group considered its draft report as contained in A/AC.105/C.2/2016/CRP.14, which had been prepared by the Secretariat in close consultation with the Chair of the Working Group 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 noted that the document provided a thorough update to the conference room paper on the categorization of international mechanisms for cooperation in the peaceful exploration and use of outer space presented to the fifty-fourth session of the Subcommittee, in 2015 (A/AC.105/C.2/2015/CRP.15). The Working Group agreed that the updated document constituted a sound basis on which to finalize its report 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. States members of the Committee presented case studies offering detailed perspectives on the lessons learned about international cooperative mechanisms and reflected on the reasons for selecting certain cooperative mechanisms for certain cooperative objectives. The Working Group also reviewed the detailed comments to its draft report as contained in A/AC.105/C.2/2016/CRP.14.

8. The Working Group observed that its findings as contained in the final report that was under preparation would lead to a better understanding of the different approaches taken by States and international organizations to cooperation in space activities. The final report would therefore constitute a basis for further strengthening international cooperation in the peaceful exploration and use of outer space.

9. The Working Group agreed to the following:

(a) States members of the Committee on the Peaceful Uses of Outer Space, together with international intergovernmental and non-governmental organizations having permanent observer status with the Committee, should again be invited by the Secretariat to provide examples of and information on the mechanisms they utilized for international cooperation in the peaceful exploration and use of outer space, so that the Working Group could develop an understanding of the range of collaborative mechanisms employed and the circumstances in which States and international organizations favoured certain classes of mechanisms over others;

(b) States members and permanent observers of the Committee were encouraged to include in their responses examples of case studies and lessons learned, as appropriate, so that the Working Group could get an understanding of why certain cooperative mechanisms were selected for certain types of international cooperation, how the choice was made between legally binding and non-legally binding mechanisms and between formal and informal arrangements, and why, for example, bilateral agreements for space cooperation were structured as they were;

(c) States members and permanent observers of the Committee might again refer to the set of questions contained in the report of the Chair of the Working Group included in the report on the fifty-third session of the Legal Subcommittee (A/AC.105/1067, annex III, para. 10).

10. On the basis of responses provided by States members and permanent observers of the Committee, the Secretariat was requested to update conference room paper A/AC.105/C.2/2016/CRP.14 in close consultation with the Chair of the

Working Group, and to make available a revised version of that conference room paper for consideration and finalization by the Working Group at the fifty-sixth session of the Subcommittee, to be held in 2017. The Working Group agreed that the final report of the Working Group would thereafter be issued in all official languages of the United Nations for the sixtieth session of the Committee on the Peaceful Uses of Outer Space, in 2017.

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