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Report of the Legal Subcommittee on its fiftieth session, held in Vienna from 28 March to 8 April 2011

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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 fiftieth session at the United Nations Office at Vienna from 28 March to 8 April 2011 under the chairmanship of Ahmad Talebzadeh (Islamic Republic of Iran).
- 2. The Subcommittee held a total of 19 meetings. The views expressed at those meetings are contained in unedited verbatim transcripts (COPUOS/Legal/T.820-838).

B. Adoption of the agenda

- 3. At its 820th meeting, on 28 March, the Subcommittee adopted the following agenda:
 - 1. Adoption of the agenda.
 - 2. Statement by the Chair.
 - 3. General exchange of views.
 - 4. Status and application of the five United Nations treaties on outer space.
 - 5. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
 - 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. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
 - 8. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.
 - 9. Capacity-building in space law.
 - 10. General exchange of information on national mechanisms relating to space debris mitigation measures.
 - 11. General exchange of information on national legislation relevant to the peaceful exploration and use of outer space.
 - 12. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-first session.

C. Attendance

- 4. Representatives of the following 54 member States of the Committee attended the session: Algeria, Argentina, Australia, Austria, Belgium, Bolivia (Plurinational State of), Brazil, Bulgaria, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Lebanon, Malaysia, Mexico, Morocco, Netherlands, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sweden, Thailand, Tunisia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela (Bolivarian Republic of) and Viet Nam.
- 5. At its 820th meeting, on 28 March, the Subcommittee decided to invite, at their request, observers for Azerbaijan, Costa Rica, the Dominican Republic, Israel, the United Arab Emirates and Yemen 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 Subcommittee concerning status.
- 6. The session was attended by observers for the following intergovernmental organizations having permanent observer status with the Committee: Asia-Pacific Space Cooperation Organization, European Telecommunications Satellite Organization, European Organisation for the Exploitation of Meteorological Satellites, European Space Agency, International Mobile Satellite Organization, International Institute for the Unification of Private Law (Unidroit), International Organization of Space Communications (Intersputnik) and Regional Centre for Remote Sensing of the North African States. The session was attended by observers for the following non-governmental organizations having permanent observer status with the Committee: European Space Policy Institute, International Academy of Astronautics, International Astronautical Federation, International Law Association, International Institute of Space Law, National Space Society, Secure World Foundation and Space Generation Advisory Council.
- 7. The Subcommittee noted the application of Azerbaijan for membership in the Committee (A/AC.105/C.2/2011/CRP.15).
- 8. The Subcommittee had before it information concerning the application of the Association of Remote Sensing Centres in the Arab World for permanent observer status with the Committee (A/AC.105/C.2/2011/CRP.11).
- 9. 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.2/2011/INF/43.

D. Symposium

10. On 28 March, the International Institute of Space Law (IISL) and the European Centre for Space Law (ECSL) held a symposium on the theme "A new look at the delimitation of airspace and outer space", which was chaired by Tanja Masson-Zwaan of IISL and Sergio Marchisio of ECSL. The Subcommittee heard the

following presentations during the symposium: "A short look back at a long debate", by Catherine Doldirina; "An engineering look at delimitation in light of technological changes", by Luboš Perek; "Are there indications for upper and lower limits for air space and outer space in air law, space law and national legislation?", by Marco Pedrazzi; "Legal implications for delimitation of airspace and outer space", by Joanne Gabrynowicz; "Delimitation and the commercial use of outer space", by Sang-Myon Rhee; and "Delimitation as an element for rules of the road: a space traffic management regime", by Jean-François Mayence. Concluding remarks were made by the Chair of the Subcommittee and by the Chair of the Working Group on the Definition and Delimitation of Outer Space. The papers and 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/COPUOS/Legal/2011/symposium.html).

11. 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

12. At its 838th meeting, on 8 April, the Subcommittee adopted the present report and concluded the work of its fiftieth session.

II. General exchange of views

- 13. Statements were made by representatives of the following States members of the Subcommittee during the general exchange of views: Algeria, Austria, Belgium, Brazil, Canada, Chile, China, Czech Republic, France, Germany, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Kazakhstan, Kenya, Malaysia, Morocco, Philippines, Poland, Romania, Russian Federation, Saudi Arabia, South Africa, Spain, Thailand, Tunisia, Ukraine, United States and Venezuela (Bolivarian Republic of). Statements were made by Colombia on behalf of the Group of Latin American and Caribbean States and Iran (Islamic Republic of) on behalf of the Group of 77 and China. The observers for the International Astronautical Federation, IISL, the National Space Society and the Secure World Foundation also made statements.
- 14. At the 820th meeting, on 28 March, the Chair made a statement in which he highlighted the celebration of the fiftieth session of the Subcommittee and the commemorations in 2011 the fiftieth anniversary of the first human spaceflight and the fiftieth anniversary of the first session of the Committee on the Peaceful Uses of Outer Space. The statement is contained in an unedited verbatim transcript (COPUOS/Legal/T.820).
- 15. At the same meeting, the Director of the Office for Outer Space Affairs made a statement reviewing the role and work of the Office relating to space law and the role of the Office in discharging the responsibilities of the Secretary-General under the United Nations treaties on outer space, including the maintenance of the Register of Objects Launched into Outer Space.

- 16. The Subcommittee noted with satisfaction that the year 2011 marked the fifteenth anniversary of the adoption by the General Assembly of the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit and in the Interest of All States, Taking into Particular Account the Needs of Developing Countries (Assembly resolution 51/122).
- 17. The Subcommittee expressed its condolences to and solidarity with the Governments of Japan, Myanmar, New Zealand, Pakistan, Saudi Arabia and the Sudan with regard to the recent natural disasters that had taken so many lives and caused so much damage in those countries.
- 18. Some delegations expressed the view that strengthening the security of the growing number of activities in outer space was an important objective.
- 19. Some delegations expressed the view that the use of outer space for peaceful purposes could be threatened unless more importance was placed on the long-term sustainability of outer space activities.
- 20. Some delegations expressed concern about an arms race in outer space and were of the view that present gaps in the legal regime on outer space required a more comprehensive legal regime to prevent militarization in outer space.
- 21. Some delegations reiterated their commitment to the peaceful use and exploration of outer space. Those delegations emphasized the following principles: equal and non-discriminatory access to outer space and equal conditions for all States, irrespective of their level of scientific, technical and economic development; non-appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty, use, occupation or any other means; non-militarization of outer space and its exploitation strictly for the improvement of living conditions and peace on the planet; and regional cooperation to promote space activities, as established by the General Assembly and other international forums.
- 22. Some delegations expressed the view that the heightened pace of technological advancement in activities in outer space and the increased participation of States, international organizations and the non-governmental sector required continued reflection by the Subcommittee to enable further strengthening of the legal regime on outer space so as to preserve outer space for future generations.
- 23. The view was expressed that the process of universal adherence to the United Nations treaties on outer space was slower than in other areas of international law.
- 24. Some delegations expressed the view that the international legal framework should be further developed to avoid measures that would limit access to space by States with emerging space capabilities and should refrain from setting up overly high standards or thresholds for space activities in a way that might hinder the enhancement of capacity-building in developing countries.
- 25. Some delegations expressed the view that further development of the international legal regime and structuring of the work of the Subcommittee in a manner that allowed all nations, whether advanced space-faring nations or nations with emerging space capabilities, to benefit from space activities in an equitable manner would contribute to socio-economic prosperity and sustainable development, in particular in developing countries.

- 26. Some delegations were of the view that the Legal Subcommittee should cooperate more closely with the Scientific and Technical Subcommittee in order to address legal aspects of scientific and technological developments.
- 27. The view was expressed that the Legal Subcommittee should be commended for its role in establishing the core treaties on outer space and for its distinguished history of working through consensus to develop space law in a manner that promoted, rather than hindered, the exploration and use of outer space for peaceful purposes, and that such success was a result of the ability of the Subcommittee to focus on practical problems and to address such problems through a consensus-based, result-oriented process.
- 28. The Subcommittee noted the following events taking place during its current session: (a) the screening of a documentary entitled *Yuri Gagarin: Chosen by Stars* and an exhibition organized by the Government of the Russian Federation to mark the fiftieth anniversary of the first human space flight by Russian cosmonaut Yuri Gagarin; (b) a joint event organized by the delegation of the Russian Federation and the European Space Policy Institute entitled "Fiftieth anniversary of the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee: perspectives for space law"; (c) an exhibition entitled "Space. About a dream", supported by the Government of Austria; and (d) a conference on the theme "Soft law in outer space: the function of non-binding norms in international space law", co-organized by the University of Vienna and the national point of contact for Austria of ECSL. The Subcommittee expressed its gratitude to the hosts and organizers of those events.

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

- 29. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 4, entitled "Status and application of the five United Nations treaties on outer space", as a regular item of its agenda.
- 30. The representatives of Austria, China, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 4. During the general exchange of views, statements relating to that item were also made by representatives of other member States, the representative of Colombia on behalf of the Group of Latin American and Caribbean States and the representative of the Islamic Republic of Iran on behalf of the Group of 77 and China.
- 31. At its 820th meeting, on 28 March, the Subcommittee reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space under the chairmanship of Jean-François Mayence (Belgium). The Working Group held five meetings. At its 836th meeting, on 7 April, the Subcommittee endorsed the report of the Working Group, contained in annex I to the present report.

- 32. The Subcommittee noted that, as at 1 January 2011, 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, had 101 States parties and had been signed by 26 additional States;
- (b) The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space² had 91 States parties and had been signed by 24 additional States; and 2 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 Objects³ had 88 States parties and had been signed by 23 additional States; and 3 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 Space⁴ had 55 States parties and had been signed by 4 additional States; and 2 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 Bodies⁵ had 13 States parties and had been signed by 4 additional States.
- 33. The Subcommittee welcomed reports from Member States regarding their progress towards becoming parties to the five United Nations treaties on outer space, in developing national space laws and in concluding bilateral and multilateral agreements on space cooperation. The Subcommittee noted that the activities of the Office for Outer Space Affairs were contributing to that progress.
- 34. The Subcommittee recalled that the Rescue Agreement, the Liability Convention, the Registration Convention and the Moon Agreement contained mechanisms permitting international intergovernmental organizations conducting space activities to declare their acceptance of the rights and obligations established under those treaties. The Subcommittee recommended that those international intergovernmental organizations that had not yet made such declarations should consider taking steps to encourage their members to adhere to the United Nations treaties on outer space, thereby enabling their acceptance of the rights and obligations under those treaties.
- 35. Some delegations were of the view that the United Nations treaties on outer space represented a solid legal structure, crucial for supporting the increasing scale of space activities and strengthening international cooperation in the peaceful uses of outer space. Those delegations welcomed further adherence to the treaties and

¹ United Nations, Treaty Series, vol. 610, No. 8843.

² Ibid., vol. 672, No. 9574.

³ Ibid., vol. 961, No. 13810.

⁴ Ibid., vol. 1023, No. 15020.

⁵ Ibid., vol. 1363, No. 23002.

hoped that those States that had not yet ratified or acceded to the treaties would consider becoming parties to them.

- 36. The view was expressed that the law-making process undertaken by the Subcommittee should be supported in order to further promote adherence to the United Nations treaties on outer space. The delegation that expressed that view stated that the adoption of non-binding instruments was a realistic solution that would further encourage States to adhere to and comply with the legal regime governing activities in outer space.
- 37. Some delegations were of the view that, although the United Nations treaties on outer space played an important role, those instruments were no longer sufficient for addressing legal issues arising from technological development, the expansion of space activities and the increasing participation of the non-governmental sector. Those delegations were also of the view that it was important to determine how to strengthen international and national legal systems in order to effectively address those issues.
- 38. Some delegations expressed the view that, under the legal framework of the United Nations treaties on outer space, the use of space by nations, international organizations and private entities had flourished. As a result, space technology and services were contributing immeasurably to economic growth and improvements in the quality of life throughout the world.
- 39. The view was expressed that the placement of conventional weapons in outer space was not sufficiently prohibited by the Outer Space Treaty and that it was imperative to adopt adequate and efficient measures to prevent any possibility of an arms race in outer space.
- 40. Some delegations expressed the view that a universal comprehensive convention on outer space should be developed, with the aim of finding solutions for existing issues, assuming full respect for the fundamental principles incorporated in the existing United Nations treaties on outer space.
- 41. The view was expressed that both subcommittees should cooperate in developing binding norms relating to space debris and the use of nuclear power sources in outer space.
- 42. The Legal Subcommittee endorsed the recommendation that the mandate of the Working Group be extended for one additional year. It was agreed that the Subcommittee, at its fifty-first session, in 2012, would review the need to extend the mandate of the Working Group beyond that period.
- 43. The full text of the statements made during the discussion on this agenda item is contained in unedited verbatim transcripts (COPUOS/Legal/T.822-825 and 836).

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

44. Pursuant to General Assembly resolution 65/97, 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 of its agenda.

- 45. Statements were made by the observers for the European Space Agency (ESA), the International Law Association (ILA) and Intersputnik under agenda item 5. During the general exchange of views, statements relating to that item were also made by the observers for the International Astronautical Federation, IISL, the National Space Society and the Secure World Foundation.
- 46. The Subcommittee noted with satisfaction that international intergovernmental organizations played a significant role in the strengthening and development of international space law by applying its norms throughout their activities and promoting it among their Member States.
- 47. For its consideration of the item, the Subcommittee had before it a note by the Secretariat containing information on activities relating to space law received from the Committee on Space Research (COSPAR), ECSL, Unidroit, IISL, ILA, Intersputnik and the International Telecommunications Satellite Organization (A/AC.105/C.2/L.281 and Add.1).
- 48. The Subcommittee noted that the activities of international intergovernmental and non-governmental organizations relating to space law had continued to contribute significantly to the development of space law and that those organizations had continued to organize numerous conferences and symposiums, prepare publications and reports and organize training seminars for practitioners and students, all of which were intended to broaden and advance the knowledge of space law.
- 49. The Subcommittee expressed its gratitude to the Asia-Pacific Space Cooperation Organization, ESA, ECSL, IISL and ILA for their continuous contribution to the United Nations workshops on space law.
- 50. The Subcommittee invited ILA to inform the Subcommittee at its fifty-first session about the activities of that organization in relation to the work of the advisory group on dispute settlement relating to private activities in outer space of the Permanent Court of Arbitration.
- 51. 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.
- 52. The Subcommittee agreed that international intergovernmental and non-governmental organizations should again be invited to report to it at its fifty-first session on their activities relating to space law.
- 53. The full text of the statements made during the discussion on this agenda item is contained in unedited verbatim transcripts (COPUOS/Legal/T.822-825).

- 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
 - 54. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 6, entitled "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", as a regular item of its agenda.
 - 55. The representatives of Brazil, Indonesia, Morocco, the Russian Federation, Saudi Arabia, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 6. Statements were also made by the representative of Peru on behalf of the Group of Latin American and Caribbean States and the representative of Indonesia on behalf of the Group of 77 and China. During the general exchange of views, statements relating to that item were made by representatives of other member States.
 - 56. At its 820th meeting, on 28 March, the Subcommittee reconvened its Working Group on the Definition and Delimitation of Outer Space under the chairmanship of José Monserrat Filho (Brazil). In accordance with the agreement reached by the Subcommittee at its thirty-ninth session and endorsed by the Committee at its forty-third session, the Working Group was convened to consider only matters relating to the definition and delimitation of outer space.
 - 57. The Working Group held three meetings. The Subcommittee, at its 836th meeting, on 7 April, endorsed the report of the Working Group, contained in annex II to the present report.
 - 58. For its consideration of the item, the Subcommittee had before it the following:
 - (a) Note by the Secretariat entitled "National legislation and practice relating to the definition and delimitation of outer space" (A/AC.105/865 and Add.8-10);
 - (b) Note by the Secretariat entitled "Questions on the definition and delimitation of outer space: replies from Member States" (A/AC.105/889/Add.7-9);
 - (c) Conference room paper entitled "Questions on the definition and delimitation of outer space: replies from Member States", containing the replies of Austria and El Salvador (A/AC.105/C.2/2011/CRP.10).
 - 59. 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 question of the definition and delimitation of outer space.

- 60. Some delegations expressed the view that the lack of a definition or delimitation of outer space created legal uncertainty concerning the applicability of space law and air law and that matters concerning State sovereignty and the boundary between airspace and outer space needed to be clarified in order to reduce the possibility of disputes among States.
- 61. The view was expressed that the definition and delimitation of outer space would ensure the effective implementation of the principle of freedom of use of outer space for peaceful purposes.
- 62. The view was expressed that the definition and delimitation of outer space was important in relation to the issue of the liability of States and other entities engaging in space activities. That issue had become particularly topical in the light of the current intensification and diversification of space activities.
- 63. The view was expressed that current and foreseeable civil aviation operations would not exceed altitudes of 100-130 kilometres, where there was a potential danger of collision with numerous spacecraft. The delegation expressing that view proposed that the boundary between airspace and outer space be established in that range.
- 64. The view was expressed 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. The delegation expressing that view was also of the view that at the present time any attempt to define and delimit outer space would be a theoretical exercise that could complicate existing activities and that might not be able to anticipate future technological developments.
- 65. The view was expressed that the discussion on the definition and delimitation of outer space had not only a legal but also a political character.
- 66. The view was expressed that the Legal Subcommittee, when considering matters relating to the definition and delimitation of outer space, should take into account recent and future technological developments and that the Scientific and Technical Subcommittee should also consider that subject.
- 67. Some delegations were of the view that the geostationary orbit a limited natural resource clearly in danger of saturation must 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 having access to the orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries, as well as the geographical position of certain countries, and taking into account the processes of the International Telecommunication Union (ITU) and relevant norms and decisions of the United Nations.
- 68. The view was expressed that the geostationary orbit should be used rationally, efficiently and economically.
- 69. Some delegations expressed the view that in using the geostationary orbit it was important to give priority to the contributions of space activities to sustainable development and the achievement of the Millennium Development Goals.

- 70. Some delegations were of the view that the geostationary orbit was part of outer space, was not subject to national appropriation by claim of sovereignty, by means of use or occupation or by any other means, including by means of use or repeated use, and that its utilization was governed by the Outer Space Treaty and ITU treaties.
- 71. The view was expressed that the utilization by States of the geostationary orbit on the basis of "first come, first served" was unacceptable and that therefore the Subcommittee should develop a legal regime guaranteeing equitable access to orbital positions for States, in accordance with the principles of peaceful use and non-appropriation of outer space.
- 72. The view was expressed that the geostationary orbit could not be appropriated by States or by international intergovernmental or non-governmental organizations. The delegation expressing that view also stated that coordination between the Committee, its subcommittees and ITU should be established in order to facilitate the access of developing States to orbits.
- 73. The full text of the statements made during the discussion on agenda item 6 is contained in unedited verbatim transcripts (COPUOS/Legal/T.824-829 and 836).

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

- 74. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 7, 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.
- 75. The representatives of Brazil, Chile, China, the Republic of Korea, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 7. Statements were also made by the representative of Colombia on behalf of the Group of Latin American and Caribbean States and the representative of Venezuela (Bolivarian Republic of) on behalf of the Group of 77 and China. During the general exchange of views, statements relating to that item were made by representatives of other member States.
- 76. The Legal Subcommittee noted with satisfaction that the adoption of the Safety Framework for Nuclear Power Source Applications in Outer Space (A/AC.105/934) by the Scientific and Technical Subcommittee at its forty-sixth session and the endorsement of the Safety Framework by the Committee on the Peaceful Uses of Outer Space at its fifty-second session, in 2009, constituted an important step in the efforts of progressive development of international space law and significantly advanced international cooperation in ensuring the safe use of nuclear power sources in outer space.
- 77. The Legal Subcommittee noted with satisfaction the workshop organized by the Working Group on the Use of Nuclear Power Sources in Outer Space during the forty-eighth session of the Scientific and Technical Subcommittee, in accordance with the multi-year workplan and objectives adopted by the Scientific and Technical Subcommittee at its forty-seventh session (A/AC.105/958, annex II, paras. 7 and 8).

- 78. The view was expressed that strict implementation of the Safety Framework by all actors involved in the development of nuclear power source systems for use in outer space was required in view of the seriousness of the safety concerns and the implications with regard to accidents.
- 79. Some delegations expressed the view that more consideration should be given to the use of nuclear power sources in outer space, specifically in the geostationary orbit and low-Earth orbits, in order to address the legal aspects of the problem of potential collisions of nuclear-powered space objects in orbit and the incidents or emergencies that might be created by the accidental re-entry of such objects into the Earth's atmosphere, as well as the impact of such a re-entry on the Earth's surface, human life and health and the ecosystem.
- 80. Some delegations were of 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 that the matter concerned all of humanity. 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. In that context, those delegations called on the Legal Subcommittee to undertake a review of the Safety Framework and to promote binding standards with a view to ensuring that any activity conducted in outer space was governed by the principles of preservation of life and maintenance of peace.
- 81. Some delegations expressed the view that the use of nuclear power source systems in outer space was inevitable, in particular for deep space missions, and that proper measures should be taken to ensure the reliability and safety of the use of such technology in outer space activities.
- 82. Some delegations expressed the view that the risks and benefits associated with the use of nuclear power sources in outer space should be thoroughly assessed and that efforts should be made to predict and reduce such risks.
- 83. The view was expressed that nuclear power sources should be used in outer space exclusively as a last resort and preferably at great distance from Earth.
- 84. Some delegations expressed the view that recommendations from the Safety Framework should be considered in further detail in terms of the possibility of their implementation in the Principles Relevant to the Use of Nuclear Power Sources in Outer Space (General Assembly resolution 47/68).
- 85. Some delegations were of the view that a revision of the Principles was not warranted.
- 86. The view was expressed that a revision of the Principles would represent an obstacle to research and development with regard to outer space activities.
- 87. 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 develop legal instruments to define the responsibility of States in the use of nuclear power sources in outer space and to undertake research

- on the ways and means of optimizing or substituting the use of nuclear energy in outer space activities.
- 88. The Legal Subcommittee agreed that it was necessary to continue examining the issue and that the item should remain on its agenda.
- 89. The full text of the statements made during the discussions on agenda item 7 is contained in unedited verbatim transcripts (COPUOS/Legal/T.834-836).

VII. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment

- 90. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 8, entitled "Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment", as a single issue/item for discussion.
- 91. The representatives of Canada, China, the Czech Republic, Germany, Indonesia, Italy, Japan, Saudi Arabia and the United States made statements under agenda item 8. During the general exchange of views, statements related to that item were made by representatives of other member States.
- 92. At its 830th meeting, on 4 April, the Subcommittee heard a statement by the observer for Unidroit on developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.
- 93. The Subcommittee noted with satisfaction the progress in the preparation of a draft protocol on space assets achieved by the Unidroit committee of governmental experts, which had held its fourth session from 3 to 7 May 2010 and its fifth session from 21 to 25 February 2011, both in Rome. In that connection, the Subcommittee noted that the Unidroit committee had agreed on a new definition of the term "space asset", a new public service rule and a rule specifying the criteria for the identification of space assets for registration purposes. The Unidroit committee of governmental experts had also agreed on alternatives with regard to a default remedy in relation to components for which consensus had not been reached.
- 94. The Subcommittee also noted that the Unidroit committee of governmental experts had recommended to the Unidroit Governing Council that it authorize the transmission of the preliminary draft protocol, as amended, for adoption by a diplomatic conference and that the Council would consider that matter at its ninetieth session, to be held in Rome from 9 to 11 May 2011.
- 95. Some delegations were of the view that the future protocol on space assets would promote new space applications, serve the interests of developing countries, facilitate the expansion of the commercial space sector and enlarge the number of States able to conduct space activities.
- 96. The view was expressed that the future protocol on space assets should correspond with the United Nations treaties and principles on outer space and that it should balance the interests of governmental and non-governmental entities, as well

- as protect the interests of developing countries, in particular by providing for their continuous access to the public services delivered by space assets.
- 97. Some delegations were of the view that the future protocol on space assets would not be aimed at affecting the rights and obligations of States parties to the United Nations treaties on outer space and to the instruments of ITU and that it would be aimed at addressing only the distinct issue of private international law related to financing commercial space assets.
- 98. The view was expressed that the current draft protocol kept a proper balance between the continuation of public service and the interests of the creditor, that the new definition of space assets provided flexibility that would allow room for, in particular, new space vehicles that would be developed in the future, and that provisions of draft article I, paragraph 3, would improve the applicability of the draft protocol.
- 99. Some delegations were of the view that, while they continued to support the originally stated objectives of the draft protocol on space assets, and recognized the recent improvements in the text of the draft protocol, unless the provisions of the draft protocol on space assets could be further improved to produce economic benefits and gain sufficient support among users, it was not clear that those objectives would be met or that that type of treaty framework would be able to meet, under the present circumstances, the needs of commercial finance in the space sector.
- 100. The view was expressed that the Legal Subcommittee could renew its consideration of the concept "launching State" to determine if a financing State should be qualified as a "launching State".
- 101. The view was expressed that it was important that the application of the future protocol on space assets ensured the continuous use of outer space for peaceful purposes.
- 102. The Subcommittee agreed that the item should remain on its agenda.
- 103. The full text of the statements made during the discussion on agenda item 8 is contained in unedited verbatim transcripts (COPUOS/Legal/T.830-833).

VIII. Capacity-building in space law

- 104. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 9, entitled "Capacity-building in space law", as a single issue/item for discussion.
- 105. The representatives of Austria, Brazil, Canada, China, the Czech Republic, Germany, Japan, Saudi Arabia, South Africa, Spain and the United Kingdom made statements under agenda item 9. Statements were also made by the representative of Colombia on behalf of the Group of Latin American and Caribbean States, the representative of Venezuela (Bolivarian Republic of) on behalf of the Group of 77 and China. During the general exchange of views, statements relating to that item were made by representatives of other member States. The observer for ESA also made a statement under that item.

- 106. The Subcommittee had before it the following:
- (a) Report on the United Nations/Thailand Workshop on Space Law on the theme "Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks", held in Bangkok from 16 to 19 November 2010 (A/AC.105/989);
- (b) Conference room paper containing a directory of educational opportunities in space law (A/AC.105/C.2/2011/CRP.3);
- (c) Conference room paper containing the draft Education Curriculum on Space Law (A/AC.105/C.2/2011/CRP.5);
- (d) Conference room paper containing information submitted by Austria, Japan, Ukraine and the United Kingdom on actions and initiatives to build capacity in space law (A/AC.105/C.2/2011/CRP.6);
- (e) Conference room paper containing information submitted by the Netherlands on actions and initiatives to build capacity in space law (A/AC.105/C.2/2011/CRP.14);
- (f) Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks proceedings of the United Nations/Thailand Workshop on Space Law (ST/SPACE/54).
- 107. 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 and to increase knowledge of the legal framework within which space activities were carried out. It was emphasized that the Subcommittee had an important role in that regard.
- 108. The view was expressed that adequate support, through the provision of both expertise and material and financial resources, was necessary to enable institutions to effectively conduct courses on space law.
- 109. 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 on space law; providing fellowships for graduate and postgraduate education in space law; assisting in the development of national space legislation and policy frameworks; organizing workshops, seminars and other specialized activities to promote greater understanding of space law; providing financial and technical support for legal research; preparing dedicated studies, papers and publications on 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; and supporting entities dedicated to the study of and research relating to space law.
- 110. The Subcommittee noted that some member States provided financial assistance to young students for ensuring the attendance at the Manfred Lachs Space Law Moot Court, held each year during the meetings of the International Astronautical Congress.

- 111. Some delegations expressed the view that cooperation agreements with public and private educational institutions and with interregional organizations for the promotion of capacity-building programmes related to space law were needed to enable the exchange of knowledge and capacity-building in space law at the national and regional levels for the benefit of developing countries.
- 112. Some delegations expressed the view that more effective efforts were needed to increase awareness of the importance of space law and the legal framework governing outer space activities and that greater support was needed to promote North-South and South-South cooperation to facilitate the sharing of knowledge with respect to space law among countries, particularly for the benefit of developing countries.
- 113. The view was expressed that consideration should be given to compiling a list of internship opportunities in space law available around the world, as publicizing such opportunities would not only make future space lawyers more aware of training opportunities but also deepen mutual understanding among countries engaged in space activities.
- 114. The Subcommittee noted with appreciation the holding of the seventh United Nations workshop on space law, entitled "Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks". The workshop, held in Bangkok from 16 to 19 November 2010, had been hosted by the Government of Thailand and organized jointly by the Office for Outer Space Affairs and the Geo-Informatics and Space Technology Development Agency, with the support of ESA and the Asia-Pacific Space Cooperation Organization.
- 115. The Subcommittee noted the plans of the Office for Outer Space Affairs to organize, jointly with the Government of Kenya and ESA, a session on space law on the margins of the Fourth African Leadership Conference on Space Science and Technology for Sustainable Development, to be held in Mombasa, Kenya, from 26 to 28 September 2011.
- 116. The Subcommittee noted with appreciation the work being carried out by the Office for Outer Space Affairs, along with space law educators and representatives of the regional centres for space science and technology education, affiliated to the United Nations, to develop the curriculum on space law and welcomed the updated draft of the curriculum circulated at the current session (A/AC.105/C.1/2011/CRP.5).
- 117. The Subcommittee noted with satisfaction that the Office for Outer Space Affairs had updated the directory of educational opportunities in space law (A/AC.105/C.2/2011/CRP.3), including information on available fellowships and scholarships, and agreed that the Office should continue to update the directory. In that connection, the Subcommittee invited member States to encourage contributions at the national level to the future updating of the directory.
- 118. The view was expressed that capacity-building initiatives should include a variety of options, including online courses at a reasonable cost, in order to reach a wider audience.
- 119. The Subcommittee recommended that member States and permanent observers of the Committee inform the Subcommittee, at its fifty-first session, of any action

taken or planned at the national, regional or international level to build capacity in space law.

120. The full text of the statements made during the discussion on agenda item 11 is contained in unedited verbatim transcripts (COPUOS/Legal/T.830-833).

IX. General exchange of information on national mechanisms relating to space debris mitigation measures

- 121. Pursuant to General Assembly resolution 65/97, the Subcommittee considered agenda item 10, entitled "General exchange of information on national mechanisms relating to space debris mitigation measures", as a single issue/item for discussion.
- 122. The representatives of Belgium, Brazil, China, the Czech Republic, Germany, India, Italy, Japan, the Netherlands, Portugal, Saudi Arabia, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 10. Statements were also made by the representative of Colombia on behalf of the Group of Latin American and Caribbean States and the representative of Indonesia on behalf of the Group of 77 and China. During the general exchange of views, statements related to that item were made by representatives of other member States.
- 123. The Subcommittee noted that the general exchange of information under agenda item 10 would assist States in understanding the different approaches, including development of national regulatory frameworks, that States had taken to mitigate and prevent the increase in space debris.
- 124. The Subcommittee expressed concern over the increasing amount of space debris and noted that the future of space activities largely depended on space debris mitigation.
- 125. Some delegations expressed the view that the issue of mitigation of space debris should continue to be treated as a priority, with a view to further increasing research in the areas of technology for space debris observation, space debris environmental modelling and technologies to protect space systems from space debris and to limit substantially the creation of additional space debris.
- 126. 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 was a key step in providing all space-faring nations with guidance on how to mitigate the problem of space debris.
- 127. 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 Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines 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 Guidelines, the European Code of Conduct for Space Debris Mitigation and International Organization for Standardization (ISO) standard 24113 (Space systems: space debris mitigation requirements) as references in the regulatory framework established for national space activities.

- 128. 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.
- 129. Some delegations expressed the view that the Legal Subcommittee should undertake a review of the effectiveness of the Space Debris Mitigation Guidelines of the Committee.
- 130. Some delegations expressed the view that a legal review and an analysis of the Space Debris Mitigation Guidelines of the Committee were also required.
- 131. Some delegations were of the view that the Scientific and Technical Subcommittee and the Legal Subcommittee should cooperate with the aim of developing legally binding rules relating to space debris.
- 132. Some delegations expressed the view that technical research should be carried out with a view to improving the Space Debris Mitigation Guidelines of the Committee and keeping them up to date with new technologies and capabilities of detection and reduction of space debris, in accordance with General Assembly resolution 62/217.
- 133. Some delegations were of the view that there was a need for a review of the legal aspects of the Space Debris Mitigation Guidelines of the Committee, with a view to transforming the Guidelines into a set of principles to be adopted by the General Assembly.
- 134. The view was expressed that the review of the Space Debris Mitigation Guidelines of the Committee should focus on the legal and regulatory aspects of the Guidelines and that the content of the technical norms of the Guidelines should not be reviewed.
- 135. The view was expressed that, although the technical aspects of space debris had been discussed in the Scientific and Technical Subcommittee, the Legal Subcommittee should also thoroughly examine the issue of space debris.
- 136. The view was expressed that duplication in the work of the Scientific and Technical Subcommittee and its Working Group on the Long-term Sustainability of Outer Space Activities and the Legal Subcommittee should be avoided.
- 137. Some delegations expressed the view that member States should report to the Legal Subcommittee and disseminate information on action taken to reduce the generation of space debris.
- 138. The view was expressed that the exchange of timely, actionable information on space debris was a key part of maintaining the long-term sustainability of outer space activities.
- 139. The view was expressed that the involvement of all stakeholders, including academia, industry and the authorities concerned, was necessary for the development of standards and criteria aimed at the development of common guidelines to be applied by all States.
- 140. The Subcommittee urged States and organizations to continue to implement the Space Debris Mitigation Guidelines of the Committee and to study the

- experience of States that had already established national mechanisms governing space debris mitigation.
- 141. The Subcommittee took note of a proposal made by the Czech Republic (A/AC.105/C.2/L.283). (For a summary of the views expressed on the proposal see paragraphs 163-169 below.)
- 142. The full text of the statements made during the discussion on agenda item 10 is contained in unedited verbatim transcripts (COPUOS/Legal/T.826-829).

X. General exchange of information on national legislation relevant to the peaceful exploration and use of outer space

- 143. Pursuant to General Assembly resolution 65/97, agenda item 11, entitled "General exchange of information on national legislation relevant to the peaceful exploration and use of outer space", was considered in accordance with the multi-year workplan for the period 2008-2011 adopted by the Committee on the Peaceful Uses of Outer Space at its fiftieth session (A/62/20, para. 219).
- 144. The representatives of China, Germany, the Russian Federation, Spain and the United States made statements under agenda item 11. During the general exchange of views, statements relating to that item were made by representatives of other member States.
- 145. At its 820th meeting, on 28 March, the Subcommittee reconvened the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space under the chairmanship of Irmgard Marboe (Austria). The Working Group held seven meetings. The Subcommittee, at its 838th meeting, on 8 April, endorsed the report of the Working Group contained in annex III to the present report.
- 146. For its consideration of the item, the Subcommittee had before it the following:
- (a) Note by the Secretariat containing information received from the Czech Republic and Spain on national legislation relevant to the peaceful exploration and use of outer space (A/AC.105/957/Add.1);
- (b) Conference room paper containing the draft report of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space (A/AC.105/C.2/2011/CRP.4);
- (c) Conference room paper containing information received from Italy and Ukraine on national legislation relevant to the peaceful exploration and use of outer space (A/AC.105/C.2/2011/CRP.7);
- (d) Conference room paper containing a schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2011/CRP.9);
- (e) Conference room paper containing information received from El Salvador on national legislation relevant to the peaceful exploration and use of outer space (A/AC.105/C.2/2011/CRP.13).

- 147. The Subcommittee heard the following presentations:
- (a) "Centre national d'études spatiales (CNES) presentation: space debris activities; registration issues", by the representative of France;
- (b) "Federal Aviation Administration and delimitation", by the representative of the United States.
- 148. The Subcommittee agreed that the general exchange of information on national legislation relevant to the peaceful exploration and use of outer space had provided States with a comprehensive overview of the current status of national space laws and regulations and assisted States in understanding the different approaches taken at the national level for the development of national space-related regulatory frameworks.
- 149. The Subcommittee noted with satisfaction the increasing number of spacerelated international cooperation programmes and projects. In that connection, the Subcommittee noted the importance of the development of space legislation by States, as that legislation played a significant role in regulating and promoting such cooperation activities.
- 150. The Subcommittee noted that States continued to undertake efforts aimed at the development of new or the improvement of existing national space-related regulatory frameworks. The Subcommittee also noted that, in developing national space-related instruments, States paid attention to their obligations with regard to the United Nations treaties on outer space.
- 151. The Subcommittee noted that the discussion of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space had allowed member States to gain an understanding of existing national regulatory frameworks and that the work being conducted under agenda item 11 was already yielding concrete results, including the sharing of valuable insight with regard to the experiences of States in the development of their national space legislation.
- 152. The Subcommittee noted with appreciation that the Office for Outer Space Affairs continued to update the database on national space legislation and multilateral and bilateral agreements related to the peaceful exploration and use of outer space (see www.unoosa.org). In that regard, the Subcommittee encouraged States to continue to submit to the Office, for inclusion in the database, the texts of laws and regulations, bilateral and multilateral agreements and policy and other legal documents related to space activities.
- 153. The full text of the statements made during the discussion on agenda item 11 is contained in unedited verbatim transcripts (COPUOS/Legal/T.830-835 and 838).

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

154. Pursuant to General Assembly resolution 65/97, the Legal Subcommittee considered agenda item 12, entitled "Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Subcommittee at its

fifty-first session", as a regular item of its agenda. Under that item the Subcommittee also considered matters related to the organization of work of the Subcommittee and the preparations for the commemorative segment of the fifty-fourth session of the Committee, to be held on 1 June 2011.

155. The representatives of Argentina, Austria, Brazil, Chile, China, Colombia, the Czech Republic, France, Germany, Greece, Indonesia, Iran (Islamic Republic of), Italy, Japan, Morocco, the Netherlands, Portugal, Romania, the Russian Federation, Saudi Arabia, Spain, the United States and Venezuela (Bolivarian Republic of) made statements under agenda item 12. A statement was also made by the representative of Colombia on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements related to that item were made by representatives of other member States.

A. Proposals to the Committee for new items to be considered by the Legal Subcommittee at its fifty-first session

156. The Legal Subcommittee recalled that the General Assembly, in its resolution 65/97, had agreed that the Subcommittee, at its fiftieth session, would submit its proposals to the Committee for new items to be considered by the Subcommittee at its fifty-first session, in 2012.

157. The Chair invited member States to propose or reiterate existing proposals for new items to be included in the agenda of the Legal Subcommittee, as contained in the report of the Subcommittee on its forty-ninth session (A/AC.105/942, para. 170).

158. The Subcommittee agreed to retain all the single issues/items for discussion currently on the agenda for consideration at its fifty-first session.

159. The Subcommittee agreed on the following items to be proposed to the Committee for inclusion in the agenda of the Subcommittee at its fifty-first session:

Regular items

- 1. Opening of the session, election of the Chair and adoption of the agenda.
- 2. Statement by the Chair.
- 3. General exchange of views.
- 4. Status and application of the five United Nations treaties on outer space.
- 5. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.
- 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.

Single issues/items for discussion

- 7. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
- 8. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.
- 9. Capacity-building in space law.
- 10. General exchange of information on national mechanisms relating to space debris mitigation measures.

Items considered under workplans

- 11. General exchange of information on national legislation relevant to the peaceful exploration and use of outer space.
 - 2012: Finalization, by a working group, of a report to the Legal Subcommittee.

New items

- 12. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-second session.
- 160. The Subcommittee also agreed that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, the Working Group on Matters Relating to the Definition and Delimitation of Outer Space and the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space should be reconvened at its fifty-first session.
- 161. The Subcommittee further agreed to review, at its fifty-first session, the need to extend beyond that session the mandate of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.
- 162. The Subcommittee agreed that IISL and ECSL should again be invited to organize a symposium, to be held during its fifty-first session.
- 163. The Subcommittee had before it a working paper submitted by the Czech Republic (A/AC.105/C.2/L.283), in which it was proposed that the Subcommittee should include on its agenda a new item entitled "Review of the legal aspects of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space, with a view to transforming the Guidelines into a set of principles to be adopted by the General Assembly".
- 164. Some delegations expressed the view that the initiative by the Czech Republic was timely in view of the importance of the issue of space debris to all States and the absence of relevant firm legal mechanisms to address that issue. In that connection, those delegations also expressed their support for the proposal.
- 165. Some delegations expressed the view that the title of the new agenda item proposed in the working paper (A/AC.105/C.2/L.283) could be shortened to include only a review of the legal aspects of the Space Debris Mitigation Guidelines of the

Committee and should not include the matter of transforming the Guidelines into a set of principles.

- 166. Some delegations expressed the view that matters relating to the review of legal aspects of space debris at the international level could be considered jointly with the item currently on the agenda of the Subcommittee entitled "General exchange of information on national mechanisms relating to space debris mitigation measures".
- 167. Some delegations expressed the view that, while the Subcommittee could begin its consideration of matters related to space debris at the international level, it was important to ensure that the exercise was not going to impose a prejudged outcome.
- 168. The view was expressed that the legal analysis of the Space Debris Mitigations Guidelines of the Committee should be undertaken by the Legal Subcommittee at the earliest stage, as it would contribute to efforts to ensure the success of long-term space missions. The delegation expressing that view stated that initiatives leading to a substantive discussion on that issue in the Subcommittee should be encouraged in order to address the concerns of all States, including those States elaborating national legislation on space debris mitigation.
- 169. Some delegations expressed the view that the introduction of a new legal instrument on space debris at the international level was premature, owing to the fact that States were still continuing to implement the Space Debris Mitigation Guidelines of the Committee at the national level.
- 170. Some delegations expressed the view that it would be productive to revisit the proposal following the results of the work of the Working Group on the Long-Term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee.
- 171. The view was expressed that the Legal Subcommittee should begin to consider at its fifty-first session the forming of a list of topical problems and issues related to the legal aspects of space activities. Such activity by the Subcommittee could help define future directions and optimize the work of the Subcommittee.
- 172. The view was expressed that the Subcommittee should consider legal aspects related to climate change.
- 173. The Subcommittee noted that the sponsors of the following proposals for new items to be included on its agenda intended to retain their proposals for possible discussion at its subsequent sessions:
- (a) Review of the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, with a view to transforming the text into a treaty in the future (proposed by Greece);
- (b) Review of the Principles Relating to Remote Sensing of the Earth from Outer Space, with a view to transforming them into a treaty in the future (proposed by Greece);
- (c) The appropriateness and desirability of drafting a universal comprehensive convention on international space law (proposed by the Russian Federation);

- (d) Regulation of the dissemination of Earth observation satellite images through the World Wide Web (proposed by Saudi Arabia);
- (e) Review of the legal aspects of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space with a view to transforming the Guidelines into a set of principles on space debris to be elaborated by the Legal Subcommittee and adopted by the General Assembly (proposed by the Czech Republic).
- 174. The Subcommittee noted that proposals for new items that had not been retained on that list could be included on the list at a later time, as appropriate.
- 175. The Subcommittee noted that its fifty-first session had been tentatively scheduled to be held from 19 to 30 March 2012.

B. Organizational matters

- 176. Some delegations expressed the view that the sessions of the Legal Subcommittee should be shortened. Those delegations proposed that the savings in time could be allocated to the sessions of the Committee or the Scientific and Technical Subcommittee, in particular its Working Group on the Long-term Sustainability of Outer Space Activities.
- 177. Some delegations expressed the view that the Legal Subcommittee was the only international forum in which developing countries could engage in a discussion of the legal aspects of outer space activities. Those delegations were of the view that the rationalization and optimization of the time allocated to the Subcommittee should be done by including on the agenda substantive items for discussion with the aim of strengthening the international legal framework and that the sessions of the Subcommittee should be kept at their current length so that the legal aspects of outer space activities could continue to be considered.
- 178. The Subcommittee noted with satisfaction the clarifications made by the Conference Management Service and the Financial Resources Management Service related to the organization of sessions and the administration of documentation for the Subcommittee.
- 179. Some delegations expressed the view that, according to the data recorded by the Conference Management Service at the United Nations Office at Vienna, the actual average duration of the first 14 plenary meetings of the Subcommittee at its current session had been 1 hour and 20 minutes. Thus, only 7 meetings would have been required, instead of the 14 meetings scheduled, and three full session days could have been saved. The necessity of sending experts to Vienna for meetings in which only 45 per cent of the available time was actually used therefore represented a heavy financial burden on member States, in particular developing countries.
- 180. Some delegations expressed the view that the time allocated to the plenary was not fully utilized in view of the lack of substantive issues on its agenda and that the role of the Subcommittee should be strengthened in order to demonstrate the operational relevance and importance of the Subcommittee. Those delegations were of the view that the issue of substance was political, in view of the lack of consensus in developing space law.

- 181. Some delegations expressed the view that the work of the Legal Subcommittee should be closely coordinated with the work of the Scientific and Technical Subcommittee, as well as the work of intergovernmental bodies other than the Committee. Those delegations were of the view that the sessions of the two subcommittees could be organized consecutively, with one or two days of joint meetings so that greater benefits could be derived from the participation of experts from both subcommittees.
- 182. Some delegations expressed the view that the reallocation of meeting time from the Legal Subcommittee to the Committee was possible, with the understanding that that time could be reallocated back to the Subcommittee, when necessary.
- 183. The view was expressed that the nature of the sessions of the Legal Subcommittee was different from those of the Committee, as the issues discussed at the Subcommittee level required extensive technical consideration by experts, and that therefore the current duration of its sessions should be kept. The delegation that expressed that view was also of the view that the Committee remained the platform for the exchange of views on broad political matters and thus the duration of its sessions could be decreased to five days in order to allow both subcommittees to have more time for consideration of their agenda items.
- 184. The view was expressed that, as substantial progress had not been made on certain issues, some items could be included on the agenda of the Legal Subcommittee every two years.
- 185. Some delegations expressed the view that meetings of the working groups of the Legal Subcommittee could be held in parallel with the plenary meetings.
- 186. Other delegations expressed the view that the parallel organization of meetings would not allow simultaneous interpretation, which was fundamental to the discussion of technical issues, and could also preclude small delegations from full representation at all meetings.
- 187. Some delegations were of the view that items on the agenda of the Legal Subcommittee should be streamlined in order to improve the effectiveness of discussions and allow the cost-effective participation of delegations in the work of the Subcommittee.
- 188. Some delegations expressed the view that the work of the Subcommittee must be optimized, streamlined and rationalized and that the efficiency of that work and working discipline should be enhanced.
- 189. The view was expressed that, in the scheduling of work, it was important to maintain a certain concentration of interest and avoid any fractionalization in the consideration of agenda items.
- 190. Some delegations were of the view that sessions of the Subcommittee could be broadcast via the World Wide Web and that the Secretariat could explore the financial implications of webcasting.
- 191. Some delegations were of the view that the contents and length of Subcommittee reports could be optimized by avoiding the repetitive reflection of views and making them more streamlined and action-oriented.

- 192. The view was expressed that in optimizing the report of the Legal Subcommittee, the content and length of the report should not be substantially reduced, as it was important for the views of member States to be duly reflected and that would be conducive to delegates attending future sessions.
- 193. Some delegations expressed the view that the agenda item on proposals to the Committee for new items to be considered by the Subcommittee did not allow sufficient room for the consideration of organizational matters and proposed that the title "Other matters" should be used, in line with the practice of the Committee.
- 194. The Subcommittee agreed that maximum flexibility should be applied in the scheduling of agenda items, in particular those under which working groups would be convened.
- 195. The Subcommittee agreed that informal consultations should be held among interested delegations on the margins of the fifty-fourth session of the Committee to continue the discussions on organizational matters.
- 196. The Subcommittee requested the Secretariat to prepare for its fifty-first session a conference room paper containing information on good practices used by other comparable United Nations entities on the structure of reports of intergovernmental bodies and agreed that the bulletin of the Director-General and Executive Director on standards for the preparation and submission of manuscripts of United Nations documents and publications dated 4 March 2010 (UNOV/DGB.22-UNODC/EDB.22) should be attached to that paper for further study.
- 197. The Subcommittee requested the Secretariat to prepare for its fifty-first session, in 2012, a conference room paper in which it examined the financial and other implications of webcasting the sessions of the Subcommittee.
- 198. In accordance with the request made by the Committee at its fifty-third session, in 2010, the Subcommittee considered a proposal made by the Secretariat to discontinue the use of unedited transcripts (A/AC.105/C.2/L.282) and recommended that the use of unedited transcripts should be discontinued, starting from its fifty-first session, in 2012, in accordance with that proposal.

C. Preparations for the commemorative segment of the fifty-fourth session of the Committee, to be held on 1 June 2011

199. The Subcommittee noted that informal consultations had been held during the session, under the leadership of the Chair of the Committee on the Peaceful Uses of Outer Space, on the preparations for the commemorative segment of the fifty-fourth session of the Committee and on the preparation of a declaration to be adopted on 1 June 2011, as contained in a working paper submitted by the Chair of the Committee entitled "Declaration on the Fiftieth Anniversary of Human Space Flight and the Fiftieth Anniversary of the Committee on the Peaceful Uses of Outer Space" (A/AC.105/L.283).

200. The Subcommittee agreed on the text of the draft declaration contained in document A/AC.105/L.283, as amended, and noted that the revised draft declaration would be submitted to the Committee at its fifty-fourth session, during the commemorative segment, on 1 June 2011.

- 201. The Subcommittee also noted that the Secretariat would communicate to all permanent missions to the United Nations (Vienna) in the coming weeks information on the schedule of the commemorative segment.
- 202. The full text of the statements made during the discussion on agenda item 12 is contained in unedited verbatim transcripts (COPUOS/Legal/T.828-837).

Annex I

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

- 1. At its 820th meeting, on 28 March 2011, 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 Jean-François Mayence (Belgium).
- 2. The Working Group held five meetings, from 29 March to 7 April 2011. At the opening meeting of the Working Group, on 28 March, the Chair recalled the mandate of the Working Group to consider, in 2011, specific themes and issues related to the status, application and/or implementation of the United Nations treaties on outer space (A/AC.105/942, annex I, para. 6).
- 3. The Chair also recalled the agreement during the forty-ninth session of the Subcommittee that the discussion within the Working Group should continue to include issues related to the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies and that it should reflect the actual needs of States conducting activities in outer space vis-à-vis the provisions of the relevant United Nations treaties (A/AC.105/942, annex I, para. 4).
- 4. The Chair recalled that the Subcommittee, at its forty-ninth session, had agreed to review at its current session the need to extend the mandate of the Working Group beyond the current session of the Subcommittee (A/AC.105/942, para. 40).
- 5. The Chair had prepared a questionnaire (A/AC.105/C.2/2011/CRP.12), with the intention of initiating and fostering the discussion, within the mandate of the Working Group, on relevant matters relating to the status and the application of the five United Nations treaties on outer space.
- 6. The Working Group welcomed the questionnaire as a good basis for discussion, as it focused on essential questions of practical relevance and served to organize and rationalize the work of the Working Group.
- 7. The Working Group agreed that States members of the Committee should be invited to provide comments and responses to the questions in the questionnaire prepared by the Chair. The questionnaire would be made available on the website of the Office for Outer Space Affairs of the Secretariat, and any replies received by the Secretariat would be made available in a conference room paper. The Working Group also agreed that the questions presented in the questionnaire were not exhaustive and that they should not limit the discussion of the Working Group during the fifty-first session of the Subcommittee.
- 8. Some delegations reiterated the view that the Working Group should take a practical rather than a theoretical approach in discussing the provisions of the treaties.

- 9. Some delegations recalled the validity of the joint statement on the benefits of adherence to the Moon Agreement by some States parties to the Agreement (A/AC.105/C.2/L.272, annex) as a useful contribution for further discussion.
- 10. The Working Group requested the Secretariat to prepare, for the fifty-first session of the Subcommittee, in 2012, an updated version of its note on activities being carried out or to be carried out on the Moon and other celestial bodies (A/AC.105/C.2/L.271 and Corr.1), which had been considered by the Working Group at its meeting held during the forty-seventh session of the Subcommittee, in 2008.
- 11. The view was expressed that a conceptual discussion would be useful with respect to issues related to the exploitation of natural resources on the Moon, under the Moon Agreement.
- 12. The view was expressed that the notion of "fault" could not be applied in the case of non-compliance by a State with a voluntary instrument adopted by the General Assembly, such as guidelines, because such instruments did not create a legal obligation and were neither obligatory nor recommendatory in nature.
- 13. The view was expressed that the analysis of the issue of transfer of ownership of objects in outer space was of the utmost importance and deserved in-depth study, given the current and often complex scenarios of transfer of ownership of satellites orbiting in outer space, for example the issue of transfer between co-launching States or the transfer from non-launching States to launching States.
- 14. The Working Group recommended that the Subcommittee at its fifty-first session, in 2012, reconvene the Working Group and review the need to extend the mandate of the Working Group beyond that session.

Annex II

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

- 1. At its 820th meeting, on 28 March 2011, 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 General Assembly resolution 65/97, the Working Group had been 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 entitled "National legislation and practice relating to the definition and delimitation of outer space" (A/AC.105/865 and Add.8-10);
- (b) Note by the Secretariat entitled "Questions on the definition and delimitation of outer space: replies from Member States" (A/AC.105/889/Add.7-9);
- (c) Conference room paper entitled "Questions on the definition and delimitation of outer space: replies from Member States", containing the replies of Austria and El Salvador (A/AC.105/C.2/2011/CRP.10).
- 4. The Working Group heard a presentation by Olavo Bittencourt (Brazil), summarizing the main ideas and proposals delivered at the symposium on the theme "A new look at the delimitation of airspace and outer space", organized by the International Institute of Space Law (IISL) and the European Centre for Space Law (ECSL) on the margins of the current session of the Subcommittee. The Working Group expressed its appreciation to IISL and ECSL.
- 5. Some delegations were of the view that it was important to define and delimit outer space at the international level and that that would create certainty in the application of air law and space law, as well as in the sovereignty of States over their airspace.
- 6. The view was expressed that solutions with regard to the definition and delimitation of outer space could be found at the national level and that they would not necessarily diverge from those, if any, established at the international level.
- 7. The view was expressed that the definition and delimitation of outer space would also enable the effective application of the principles of the freedom of use of outer space and of non-appropriation of outer space.
- 8. The view was expressed that it was important to begin thorough discussions on the definition and delimitation of outer space, even at the theoretical level, in order to have certain mechanisms in place before real problems occurred.
- 9. The view was expressed that States should continue to operate under the current framework, which had functioned well, and that, at the present time, any attempt to define or delimit outer space would be a theoretical and academic

exercise that could complicate existing activities and that might not be able to anticipate future technological developments.

- 10. Some delegations were of the view that alternative approaches to the definition and delimitation of outer space should be given serious consideration.
- 11. The view was expressed that the problem of the definition and delimitation of outer space was a problem of defining the scope of validity and application of air law and space law and that that legal problem should be resolved by giving consideration to various criteria, in particular to the definition of a stable orbit of a space object.
- 12. The view was expressed that the final decision on the matter of the definition and delimitation of outer space would be taken on a basis that would suit the interests of all States and that the decision would not necessarily be similar to the current positions taken by States.
- 13. On the basis of its discussions, the Working Group agreed:
- (a) To continue to invite States members of the Committee on the Peaceful Uses of Outer Space 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, taking into account the current and foreseeable level of development of space and aviation technologies;
- (b) To continue to address to the Governments of Member States, through the Secretariat, the following questions:
 - (i) Does your Government consider it necessary to define outer space and/or to delimit airspace and outer space, given the current level of space and aviation activities and technological development in space and aviation technologies? Please provide a justification for the answer;
 - (ii) Does your Government consider another approach to solving this issue? Please provide a justification for the answer;
 - (iii) Does your Government give consideration to the possibility of defining a lower limit of outer space and/or an upper limit of airspace, recognizing at the same time the possibility of enacting special international or national legislation relating to a mission carried out by an object in both airspace and outer space?
- 14. The Working Group noted that the Chair planned to present to the Legal Subcommittee at its fifty-first session, in 2012, a proposal on possible ways of finding a solution to the matters relating to the definition and delimitation of outer space. The Working Group also noted that the proposal would be based on ideas expressed during the IISL/ECSL symposium at the current session of the Subcommittee and would take into account various positions taken by States and representatives of academia over the past few decades.
- 15. Some delegations were of the view that the definition and delimitation of outer space remained a topical and important issue that should continue to be considered by the Working Group.

Annex III

Report of the Chair of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space

- 1. At its 820th meeting, on 28 March 2011, the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space reconvened its Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space under the chairmanship of Irmgard Marboe (Austria).
- 2. The Working Group held seven meetings, from 4 to 8 April 2011. At the opening meeting, the Chair recalled the workplan adopted by the Committee on the Peaceful Uses of Outer Space at its fiftieth session.
- 3. The Working Group had before it the following:
- (a) Note by the Secretariat containing information submitted by the Czech Republic and Spain on national legislation relevant to the peaceful exploration and use of outer space (A/AC.105/957/Add.1);
- (b) Conference room paper entitled "Draft report of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space (A/AC.105/C.2/2011/CRP.4);
- (c) Conference room paper entitled "Information on national legislation relevant to the peaceful exploration and use of outer space", containing replies received from Italy and Ukraine (A/AC.105/C.2/2011/CRP.7);
- (d) Conference room paper entitled "Schematic overview of national regulatory frameworks for space activities" (A/AC.105/C.2/2011/CRP.9);
- (e) Conference room paper entitled "Information on national legislation relevant to the peaceful exploration and use of outer space", containing a reply received from El Salvador (A/AC.105/C.2/2011/CRP.13).
- 4. The Working Group also had before it the report on the United Nations/Thailand Workshop on Space Law on the theme "Activities of States in outer space in the light of new developments: meeting international responsibilities and establishing national legal and policy frameworks", held in Bangkok from 16 to 19 November 2010 (A/AC.105/989).
- 5. The Working Group noted with satisfaction that the Chair, in consultation with the Secretariat, had prepared a draft report of the Working Group (A/AC.105/C.2/2011/CRP.4) for its consideration and that that report provided the necessary basis for finalizing the report of the Working Group under its workplan.
- 6. The Working Group conducted a detailed review of the draft report by assessing the structure and validity of the overview of national space legislation contained in chapter II, conducting a thorough analysis of the draft set of conclusions in chapter IV and determining the process of finalizing the report of the Working Group.

- 7. The Working Group agreed that the recommendations and observations of the report of the Space Law Workshop, referred to in paragraph 4 above, should also be taken into account in the drafting of the revised version of the draft report of the Working Group.
- 8. The Working Group made the following observations on the draft report:
- (a) Chapter I should be updated accordingly, taking into account the work done at the present session;
- (b) Chapter II should be revised with a view to obtaining consistency in the methodology used for summarizing national space legislation. It was important to carefully harmonize the information provided in the schematic overview of national space legislation (A/AC.105/C.2/2011/CRP.9) with the elements to be used in that chapter. The Working Group agreed that it would benefit from further information on how States had regulated the establishment and conduct of national space agencies and other governmental authorities supervising national space activities, so as to provide an understanding of the relationship between public entities and the operators of space activities, either governmental or non-governmental. The summaries of national space legislation in that chapter should be carefully harmonized with the updated schematic overview of national space legislation;
- (c) Chapter III should be revised, as appropriate, to carefully reflect the findings made by the Working Group under its workplan;
- (d) The elements of conclusion under chapter IV should be further analysed and compared with the findings of the Working Group, including with regard to the harmonization of terminology;
- (e) In some cases, in particular with respect to the elements relating to scope of application, there was a need for further consideration of more general and less constraining language. An assessment should be made on avoiding duplicate requirements for the authorization and licensing of space activities when more than one State was involved. The provisions in article VI 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, should also be reflected more explicitly;
- (f) The conditions for authorization and licensing should be expounded more explicitly, better reflecting the findings of the Working Group in chapter III of the draft report and of the Space Law Workshop referred to in paragraph 4 above;
- (g) The elements pertaining to the registration of space objects should be carefully analysed in order to obtain clarity and avoid conflicting language. The recommendations in General Assembly resolution 62/101 and other international instruments pertinent to registration should be appropriately reflected;
- (h) Under the element of liability and insurance, the term "right of recourse" needed further clarification. The role of different liability regimes at the national level should also be reflected;
- (i) It was deemed necessary to carefully review the terminology and scope of the elements on safety, in particular regarding the extent of the application and implementation of space debris mitigation guidelines;

- (j) The element on transfer of ownership or control of a space object in orbit needed further analysis in order to find the right balance between different ways of applying adequate requirements at the national level for such transfer;
- (k) Annex I should be reviewed for consistency with chapter IV. A reference to article XI of the Outer Space Treaty should be included under the category of registration. The following terminology should be used: "appropriate registry at the national level" under the category of registration; and "adequate requirements for transferring of satellites" under the category of transfer of ownership or control of space objects in orbit. An overall review of the examples of corresponding international legal instruments should be made.
- 9. The Working Group reviewed the revised schematic overview of national regulatory frameworks for space activities (A/AC.105/C.2/2011/CRP.9) and agreed that that table already served as an important source of information on how States regulated their national space activities. Further revision was regarded as necessary in order to secure correct analysis of national legislative frameworks.
- 10. To that end, the Working Group agreed that corrections to and additional information for the table in the schematic overview could be provided informally to the Secretariat until the end of June 2011. Member States should thereafter be officially invited to provide to the Secretariat information for the updating of the table.
- 11. The Working Group requested the Chair, in consultation with the Secretariat, to present to the Working Group at its next meeting a revised draft report in the form of a conference room paper for finalization by the Working Group. The revised chapter IV on conclusions should be made available in all official languages of the United Nations for adoption by the Working Group. That would enable further consideration of the revised chapter IV on conclusions, including the discussion on the possible development of recommendations of the Legal Subcommittee, the Committee on the Peaceful Uses of Outer Space or the General Assembly.
- 12. The Working Group agreed that its mandate should be extended for one more year to allow the Working Group to finalize its final report. The current mandate, ending in 2011, should therefore be extended to 2012.