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Report of the Legal Subcommittee on its forty-first session, held in Vienna from 2 to 12 April 2002

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I. Introduction

A. Opening of the session

1. The Legal Subcommittee held its forty-first session at the United Nations Office at Vienna from 2 to 12 April 2002 under the chairmanship of Vladimír Kopal (Czech Republic).

2. At the opening (656th) meeting, on 2 April, the Chairman made a statement briefly describing the work to be undertaken by the Subcommittee at its forty-first session. The Chairman's statement is contained in an unedited verbatim transcript (COPUOS/Legal/T.656).

B. Adoption of the agenda

3. At its opening meeting, the Legal Subcommittee adopted the following agenda:

1. Opening of the session and adoption of the agenda.
2. Statement by the Chairman.
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 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. Consideration of the Convention on International Interests in Mobile Equipment (opened for signature in Cape Town on 16

November 2001) and the preliminary draft protocol on matters specific to space assets.

9. Review of the concept of the "launching State".
10. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its forty-second session.

C. Attendance

4. Representatives of the following States members of the Legal Subcommittee attended the session: Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kenya, Lebanon, Malaysia, Mexico, Morocco, Netherlands, Nigeria, Peru, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sweden, Syrian Arab Republic, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, and Venezuela.

5. At the 656th meeting, on 2 April, the Chairman informed the Subcommittee that requests had been received from the Permanent Representatives of Algeria and Yemen to attend the session. The Subcommittee agreed that, since the granting of observer status was the prerogative of the Committee on the Peaceful Uses of Outer Space, it could take no formal decision on the matter, but that delegations of those States might attend the formal meetings of the Subcommittee and could direct requests for the floor to the Chairman, should they wish to make statements.

6. The following specialized agencies and other organizations of the United Nations system and other international organizations were represented at the session by observers: United Nations Educational, Scientific and Cultural Organization (UNESCO), International Civil Aviation Organization (ICAO), International Telecommunication Union (ITU), International Atomic Energy Agency (IAEA), European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), European Space Agency (ESA), International Astronautical

Federation (IAF), International Institute for the Unification of Private Law (Unidroit), International Mobile Satellite Organization (IMSO) and International Space University (ISU).

7. A list of representatives of States members of the Subcommittee, States not members of the Subcommittee, specialized agencies and other organizations of the United Nations system and other organizations attending the session and of members of the secretariat of the Subcommittee is contained in document A/AC.105/C.2/INF.34.

D. Organization of work

8. In accordance with decisions taken at its opening meeting, the Legal Subcommittee organized its work as follows:

(a) In accordance with the agreement reached at its fortieth session and endorsed by the General Assembly in its resolution 56/51 of 10 December 2001, the Legal Subcommittee established a working group on agenda item 4, entitled "Status and application of the five United Nations treaties on outer space", open to all members of the Subcommittee, and elected Vassilios Cassapoglou (Greece) to serve as its Chairman;

(b) The Subcommittee re-established its working group on agenda item 6 (a), open to all members of the Subcommittee, and elected Manuel Alvarez (Peru) to serve as its Chairman;

(c) The Subcommittee re-established its working group on agenda item 9, open to all members of the Subcommittee, and elected Kai-Uwe Schrogl (Germany) to serve as its Chairman;

(d) The Subcommittee began its work each day with a plenary meeting to hear delegations wishing to address it and then it adjourned and, when appropriate, convened a working group.

9. At the opening meeting, the Chairman made a statement concerning the utilization of conference services by the Subcommittee. He drew attention to the importance that the General Assembly and the Committee on Conferences attached to the effective utilization of conference services by all United Nations bodies. In view of that, the Chairman proposed and the Subcommittee agreed that a flexible organization of

work should continue to serve as the basis for organizing the work of the Subcommittee with a view to making fuller use of the conference services available.

10. The Subcommittee noted with satisfaction that a symposium entitled "Prospects for Space Traffic Management", sponsored by the International Institute of Space Law (IISL) in cooperation with the European Centre for Space Law (ECSL), had been held during the current session of the Legal Subcommittee, on 2 April 2002. The coordinator of the symposium was E. Fasan of IISL and presentations were made by K.-U. Schrogl on "Prospects for space traffic management", A. Kerrest de Rozavel on "Space traffic management: comparative legal aspects", J. Monserrat Filho on "Space traffic management: comparative institutional aspects", L. Perek on "Early concepts for space traffic", A. Salin on "Existing elements of traffic management in the field of telecommunications" and W. Ailor on "Space traffic control: data access defines the future". The proceedings of the symposium are contained in conference room paper A/AC.105/C.2/2002/CRP.7. The Subcommittee agreed that IISL and ECSL should be invited to hold a further symposium on space law at the forty-second session of the Legal Subcommittee.

11. The Legal Subcommittee recommended that its forty-second session be held from 24 March to 4 April 2003.

E. Adoption of the report of the Legal Subcommittee

12. The Legal Subcommittee held a total of 18 meetings. The views expressed at those meetings are contained in unedited verbatim transcripts (COPUOS/Legal/T.656-673).

13. At its 673rd meeting, on 12 April, the Subcommittee adopted the present report and concluded the work of its forty-first session.

II. General exchange of views

14. Statements were made by representatives of the following member States during the general exchange of views: Austria, Argentina, Brazil, Chile, China, Colombia, Germany, Greece, France, India, Indonesia,

Iran (Islamic Republic of), Japan, Mexico, Morocco, Peru, Portugal, Republic of Korea, Russian Federation, Ukraine and United States. The representative of Venezuela (on behalf of the Group of Latin American and Caribbean States) also made a statement. The observer for ESA also made a statement. The views expressed by those representatives are contained in unedited verbatim transcripts (COPUOS/Legal/T.656-659).

15. At the 656th meeting, on 2 April, the Director of the Office for Outer Space Affairs of the Secretariat made a statement reviewing the role and work of the Office relating to space law. The Subcommittee noted with appreciation the information on the continued work and cooperative activities of the Office in connection with promoting the understanding, acceptance and implementation of international space law.

16. The view was expressed that recent developments demonstrated an intensified research in the development of space weapons and that that could result in the militarization of outer space and lead to an arms race in outer space. Continuation of such developments therefore posed a grave threat to world peace and security of humankind. That delegation was of the view that the prevention of the militarization of outer space had become a realistic and urgent matter and that a treaty to prevent such militarization should be concluded.

17. The view was expressed that, in order to prevent the militarization of outer space, work should be begun on the drafting of a comprehensive agreement on the non-deployment of weapons in outer space and the non-use of force or threat thereof against space objects. The agreement could include, inter alia, the following elements: the use of outer space in accordance with international law to maintain peace and security; the obligation not to launch into Earth orbit any objects with any kinds of weapons and not to place such weapons on celestial bodies or deploy such weapons in outer space in any other manner; the commitment not to resort to the use of force or threat thereof against space objects; and the establishment of a mechanism to monitor the implementation of such an agreement on the basis of confidence-building measures and openness in outer space activities. An initial practical step in that direction could be the introduction of a moratorium on the deployment of weapons in outer

space that would continue until the international community concluded the relevant agreement. That delegation indicated that it would be willing to assume such an obligation immediately if other major space powers joined the moratorium.

18. The view was expressed that consideration should be given to the establishment of a world space organization to ensure an integral approach to governing the use of a single and indivisible outer space, to perform a coordinating and centralized monitoring function with the active participation of all States, regardless of their levels of economic and technological advancement, and to promote free and fair access for all States to the benefits of space exploration.

19. The view was expressed that consideration should be given to the idea of negotiating a United Nations comprehensive convention on international space law with the aim of developing generally acceptable solutions to problems in areas where there was still no consensus.

20. The view was expressed that much of the recent success of the Legal Subcommittee could be attributed to the avoidance of protracted debate in the Subcommittee on extraneous political issues. That delegation expressed the view that the accomplishments of the Committee on the Peaceful Uses of Outer Space and the Subcommittee with respect to peaceful uses of outer space were attributable to their ability to focus on practical problems within their mandates and to seek to address any such problems through a consensus-based and result-oriented process.

21. The view was expressed that the year 2002 marked the thirty-fifth anniversary of the entry into force of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the "Outer Space Treaty", General Assembly resolution 2222 (XXI), annex). That delegation was of the view that the Outer Space Treaty had set the framework and cooperative tone for tremendous technological progress in outer space activities. That delegation noted that articles I and II of the Outer Space Treaty, in particular, had set forth the following key principles: that the exploration and use of outer space should be carried out for the benefit and in the interests of all countries; that outer space should be

free for exploration and use by all States without discrimination; that there should be freedom of scientific investigation in outer space; and that outer space was not subject to national appropriation.

22. That delegation also expressed the view that the core space law instruments had together established a framework within which outer space activities had flourished and that a single, comprehensive convention on outer space was neither necessary nor feasible.

23. That delegation further noted its continued engagements in activities that benefited both non-spacefaring and spacefaring nations, such as routinely providing data from meteorological satellites to users around the globe at no cost and sharing space and Earth science data with the world scientific community through cooperative programmes or making such data available in accessible data archives. That delegation also noted that radio-navigation satellite services were available for civil, commercial and scientific use on a continuous, worldwide basis, free of direct user fees.

24. The view was expressed that a discussion should be opened (in which the Office for Outer Space Affairs could inform the Legal Subcommittee about its experiences) on ways of streamlining the agenda that might lead to a reduction, if only by a few days, of the duration of sessions and that would allow for greater participation by developing countries in the work of the Subcommittee.

25. Some delegations expressed the view that the periodic holding of regional space conferences was an effective mechanism for achieving a concurrence of opinions regarding questions of common interest in the analysis of the legal regime for outer space and in all the possibilities of regional and worldwide cooperation in the application of space technology. In that context, those delegations expressed satisfaction with regard to the holding of the Fourth Space Conference of the Americas in Cartagena de Indias, Colombia, in May 2002. It was noted that the member States and observer organizations of the Committee on the Peaceful Uses of Outer Space were invited to participate actively in the Conference.

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

26. The Legal Subcommittee recalled that the General Assembly, in its resolution 56/51, had endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Subcommittee consider this agenda item as a regular item and had agreed that the Subcommittee should establish a working group on this item for three years, from 2002 to 2004. In accordance with the agreement reached by the Legal Subcommittee at its fortieth session, in 2001, the terms of reference of the working group would include the status of the treaties, review of their implementation and obstacles to their universal acceptance, as well as promotion of space law, especially through the United Nations Programme on Space Applications (A/AC.105/763 and Corr.1, para. 118).

27. The Subcommittee had before it the *United Nations Treaties and Principles on Outer Space* (A/AC.105/572/Rev.3), including ratifications and signatures of the five United Nations treaties governing outer space. Information on ratifications and signatures of the outer space treaties had been updated by the Secretariat and distributed (A/AC.105/572/Rev.3/Amend.1).

28. The Subcommittee noted the current status of the five United Nations treaties on outer space, 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 (the "Outer Space Treaty", General Assembly resolution 2222 (XXI), annex) had 97 States parties and had been signed by 27 other States;

(b) The Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space (the "Rescue Agreement", Assembly resolution 2345 (XXII), annex) had 88 States parties and had been signed by 25 States;

(c) The Convention on International Liability for Damage Caused by Space Objects (the "Liability Convention", Assembly resolution 2777 (XXVI), annex) had 82 States parties and had been signed by 26 other States;

(d) The Convention on Registration of Objects Launched into Outer Space (the "Registration Convention", Assembly resolution 3235 (XXIX), annex) had 44 States parties and had been signed by 4 other States;

(e) The Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement", Assembly resolution 34/68, annex) had 10 States parties and had been signed by 5 other States.

In addition, one international intergovernmental organization had declared its acceptance of the rights and obligations provided for in the Rescue Agreement; two international intergovernmental organizations had declared their acceptance of the rights and obligations of the Liability Convention; and two international intergovernmental organizations had declared their acceptance of the rights and obligations of the Registration Convention.

29. The Legal Subcommittee welcomed the reports of member States on the current status of action being undertaken by States concerning accession to the five United Nations treaties on outer space and on further action planned in that regard. The Subcommittee also welcomed the reports of member States indicating how they were taking steps in practice to comply with the principles embodied in the treaties.

30. The view was expressed that one of the obstacles to universal acceptance of the five United Nations treaties on outer space was a lack of expertise in some States on matters relating to space law. Recognizing that accession to the treaties should be accompanied by the development of necessary domestic legal regimes to ensure compliance with the provisions of the treaties at all levels, that delegation welcomed the fact that the Office for Outer Space Affairs would embark on a capacity-building programme on space law to assist in the development of national space law expertise, particularly in developing countries.

31. The Legal Subcommittee was informed of measures being undertaken by the United States of America to upgrade and make more accessible its national registry of space objects, maintained in accordance with the Registration Convention, as well as to clarify the domestic criteria for including space objects on that national registry. Included on the registry would be all space objects owned or operated

by United States private or governmental entities and launched from inside or outside United States territory, as well as certain non-functioning space objects that had previously also been included on the registry. In general, non-domestic payloads launched from United States territory or facilities would not be included on the registry, as the United States was of the view that such payloads should be included on the national registry of the State of the payloads' owners or operators. The Legal Subcommittee was also informed of measures being undertaken by the United States to ensure a complete and accurate reflection in the register maintained by the Secretary-General of the space objects carried on its national registry. The view was expressed that other States should undertake a similar clarification of their registration practice in order to enhance overall international practice for the benefit of all nations.

32. Some delegations expressed the view that the outer space treaties continued to function well in an increasingly complex environment and provided a valuable framework that had facilitated the growth of both governmental and private activities in outer space. Those delegations believed that the Legal Subcommittee should continue to encourage States, particularly those States with increasing space activities, to seriously consider adhering to the treaties.

33. The view was expressed that, while the outer space treaties continued to serve as a sound basis for space activities, the rapid evolution of technology and the increasing commercialization of space activities made it necessary to identify improvements or mechanisms to strengthen the existing legal framework governing the peaceful uses of outer space. That delegation was also of the view that it would be appropriate for the Legal Subcommittee to discuss the desirability and feasibility of drafting a universal comprehensive convention on space law and that an ad hoc informal open-ended working group should be convened for that purpose, as had been previously proposed in a working paper submitted by China, Colombia and the Russian Federation (A/AC.105/C.2/L.226).

34. As mentioned in paragraph 8 (a) above, at its 656th meeting, on 2 April, the Legal Subcommittee established a Working Group on agenda item 4 under the chairmanship of Vassilios Cassapoglou (Greece).

The Working Group held 6 meetings. At its 672nd meeting, on 12 April, the Subcommittee endorsed the report of the Working Group, which is contained in annex I to the present report.

35. The full text of the statements made by delegations during the discussion on agenda item 4 is contained in unedited verbatim transcripts (COPUOS/Legal/T.657-664 and 672).

IV. Information on the activities of international organizations relating to space law

36. At the 662nd meeting, on 5 April, the Chairman made an introductory statement on agenda item 5 and drew the attention of the Legal Subcommittee to the fact that it was a regular agenda item agreed upon by the Subcommittee at its fortieth session and endorsed by the Committee on the Peaceful Uses of Outer Space at its forty-fourth session.

37. The Legal Subcommittee noted with satisfaction that various international organizations had been invited by the Secretariat to report to the Subcommittee on their activities relating to space law and agreed that a similar invitation should be extended by the Secretariat for the forty-second session of the Subcommittee, in 2003.

38. The Legal Subcommittee had before it a document (A/AC.105/C.2/L.231), and two conference room papers (A/AC.105/C.2/2002/CRP.5 and A/AC.105/C.2/2002/CRP.9) containing reports from the following international organizations on their activities relating to space law: ICAO, ITU, World Intellectual Property Organization (WIPO), ECSL of ESA, EUMETSAT, ESA, IISL of IAF and International Law Association (ILA).

39. In the course of the debate, observers for the following international organizations reported to the Legal Subcommittee on their activities relating to space law: UNESCO, ICAO, ITU, ECSL, EUMETSAT, IAF, IISL and ISU. The Subcommittee was also informed about the activities of the International Space Law Centre.

40. The Legal Subcommittee was informed about preparations for the Fourth Space Conference of the Americas, to be held in Cartagena de Indias, Colombia,

from 14 to 17 May 2002. In particular, the Subcommittee was informed of the final declaration of the preparatory meeting for the Conference, which had been held in Santiago, Chile, from 2 to 5 April 2002.

41. The view was expressed that space-related intergovernmental organizations and their member States should consider the possible steps that might be taken to bring the activities of those intergovernmental organizations into the framework of the Rescue Agreement, the Liability Convention and the Registration Convention.

42. The view was expressed that ITU had significantly contributed to the development of international law governing space activities through: (a) the relevant rules included in its Constitution and Radio Regulations annexed thereto, which represented an important contribution to the development of international space law; (b) the management of the utilization of and access to frequencies and their associated orbital positions, which entailed various legal and ethical aspects; and (c) the development of "due diligence" requirements for the successful notification of satellite systems, which had significantly helped to reduce the problem of so-called "paper satellites". That delegation also expressed the view that the Secretary-General of ITU should be requested to intensify relationships between that organization and the Committee on the Peaceful Uses of Outer Space.

43. The Legal Subcommittee noted that the Committee on the Peaceful Uses of Outer Space at its forty-fourth session, in 2001, had agreed to invite interested member States to designate experts to identify which aspects of the report of the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) of UNESCO might need to be studied by the Committee and to draft a report in consultation with other international organizations and in close liaison with COMEST. That would be done with a view to making a presentation to the Subcommittee at its forty-second session, in 2003, under the item entitled "Information on the activities of international organizations relating to space law".¹

44. The Legal Subcommittee also had before it a conference room paper containing a list of experts designated for the group of experts on the ethics of space activities (A/AC.105/C.2/2002/CRP.6) and a conference room paper submitted by Belgium, Greece,

Morocco and Spain entitled “Group of experts on the ethics of space activities” (A/AC.105/C.2/2002/CRP.8).

45. Some delegations welcomed and expressed their support for the work being conducted by COMEST, which had been reported to the Legal Subcommittee at its current session.

46. The view was expressed that there were numerous issues of ethics and space policy that required consideration, such as the risk of pollution, the exploration of deep space and the increasing commercialization of space activities. That delegation also expressed the view that the Committee on the Peaceful Uses of Outer Space was the appropriate body in the United Nations system to discuss ethical matters in the field of space enterprises and their applications for the benefit of humanity.

47. The Legal Subcommittee was informed that the representative of Belgium would serve as the coordinator of the group of experts on the ethics of outer space for the purposes of adjusting the proposed recommendations of COMEST to the already existing rules of international space law and to prepare a plan of action concerning the drafting of the report of the group of experts that would be presented to the Subcommittee at its forty-second session, in 2003.

48. The Legal Subcommittee agreed that the Secretariat should be requested to communicate once again an invitation to member States to consider designating experts, pursuant to the agreement of the Committee referred to in paragraph 43 above, prior to the holding of the forty-fifth session of the Committee, in June 2002.

49. Some delegations welcomed and expressed their support for the analysis carried out by ESA on the legal aspects of space debris as reported to the current session of the Legal Subcommittee and reflected in a conference room paper (A/AC.105/C.2/2002/CRP.5).

50. Some delegations expressed the view that, while the work currently being carried out by the Scientific and Technical Subcommittee and the Inter-Agency Space Debris Coordination Committee (IADC) should be fully supported, it would also be highly desirable for a declaration of principles relating to the prevention of space debris to be drafted and adopted as soon as possible. Following the example of the Principles Relevant to the Use of Nuclear Power Sources in Outer

Space, adopted by the General Assembly in its resolution 47/68 of 14 December 1992, such a text could proclaim and define as a matter of principle the obligation to limit the production of space debris. The text could also incorporate the rules endorsed by the Committee on the Peaceful Uses of Outer Space on the basis of the proposals made by IADC.

51. The view was expressed that the scientific and technical aspects of space debris still required further examination and study. That delegation also expressed the view that the development of principles on space debris would require the consideration of numerous aspects of the existing United Nations treaties on outer space, as well as the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, and therefore that delegation would be willing to consider the development of such principles within the context of a universal comprehensive convention on outer space law.

52. The full text of the statements made by delegations during the discussion on agenda item 5 is contained in unedited verbatim transcripts (COPUOS/Legal/T.662-668 and 670).

V. Matters relating to: (a) the definition and delimitation of outer space; and (b) the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

53. The Subcommittee recalled that the General Assembly, in its resolution 56/51, had endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Legal Subcommittee, at its forty-first session, taking into account the concerns of all countries, in particular those of developing countries, consider matters relating to the definition and delimitation of outer space and to 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 (ITU).

54. The Legal Subcommittee had before it the following documents:

(a) Note by the Secretariat entitled "Questionnaire on possible legal issues with regard to aerospace objects: replies from member States" (A/AC.105/635 and Add.1-6);

(b) Report of the Legal Subcommittee on its fortieth session (A/AC.105/763 and Corr.1);

(c) Report of the Secretariat entitled "Historical summary on the consideration of the question on the definition and delimitation of outer space" (A/AC.105/769 and Corr.1);

(d) Report of the Scientific and Technical Subcommittee on its thirty-ninth session (A/AC.105/786);

(e) Note by the Secretariat entitled "Comprehensive analysis of the replies to the questionnaire on possible legal issues with regard to aerospace objects" (A/AC.105/C.2/L.204).

55. Some delegations expressed the view that there was a need to clearly define outer space, which was common to all States, to delineate it from airspace, which fell within the sovereignty of individual States. Some delegations expressed the view that recent technological developments and emerging legal questions had made it necessary for the Legal Subcommittee to consider the question of the definition and delimitation of outer space.

56. The view was expressed that the lack of a definition and delimitation of outer space would bring about legal uncertainty with regard to space law and air law and that that should be clarified to reduce the possibility of disputes arising between States.

57. The view was expressed that, in considering the definition and delimitation of outer space, due regard should be paid to establishing a delicate balance between the principle of State sovereignty over territorial airspace and the principle of freedom of exploration and use of outer space.

58. The view was expressed that a definition and delimitation of outer space were necessary for a clear

understanding of the legal principles involved in the definition of space vehicles and in the further development of rules governing the responsibility and liability for aerospace systems.

59. The view was expressed that it was not necessary to develop any definition or delimitation of outer space when the absence of such a definition had not resulted in any legal or practical problems. The differing legal regimes applicable in respect of airspace and outer space operated well in their respective spheres and the lack of a definition and delimitation of outer space had not impeded the development of activities in either sphere. That delegation was of the view that a definition and delimitation of outer space created to respond to purely theoretical rather than practical concerns could lead to the development of an inflexible framework, ill-suited to emerging issues and advancing technology, and that it would be prudent to continue to operate within the current framework until practical or legal issues arose that would demonstrate a need for such a definition and delimitation.

60. The view was expressed that the lack of a precise definition of the term "outer space" had led to uncertainties with respect to what launch activities were regulated under the Australian Space Activities Act. That delegation informed the Subcommittee that a bill currently before the Parliament of Australia would, if passed, define the distance of 100 kilometres above mean sea level as the point at which the Act would take effect in regard to the launch and return of space objects. That delegation stressed that the amendments to the Act did not constitute a definition of outer space but rather that the 100-kilometre demarcation point was necessary to give efficacy to its legislation and to provide guidance as to what activities fell within the ambit of the Act.

61. The view was expressed that, in the case of the law of the sea, difficulties had arisen from States unilaterally setting different limits to their territorial waters. Similar difficulties could be experienced in the case of outer space should States choose to set the upper limit of their national airspace at different altitudes.

62. The view was expressed that, while the questionnaire on aerospace objects could provide a basis for moving towards consensus on the issue of the delimitation and definition of outer space, it was not clear whether the will existed to continue considering

the question of the definition and delimitation of outer space on the basis of the questionnaire.

63. The Legal Subcommittee welcomed the agreement reached at its thirty-ninth session on the question of the character and utilization of the geostationary orbit. Some delegations expressed the view that the agreement was an important basis for promoting international cooperation, to ensure that the principle of equity would be applied and that all States would have access to the geostationary orbit.

64. While noting the work undertaken by ITU relating to the scientific and technical aspects of the utilization of the geostationary orbit, the view was expressed that the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee continued to be the competent bodies to discuss the legal and political aspects of the geostationary orbit.

65. The view was expressed that, while it could be noted that the Legal Subcommittee continued to have jurisdiction over the issue of the geostationary orbit and that it should continue to find resolutions to appropriate issues that might arise, the current Constitution and Convention of the International Telecommunication Union² and the Radio Regulations, as well as the current procedures under those authorities for international cooperation among countries and groups of countries with respect to the geostationary orbit and other orbits, fully took into account the interest of States in the use of the geostationary and the radio frequency spectrum.

66. Some delegations expressed the view that the geostationary orbit was a limited natural resource with sui generis characteristics and that equitable access to it should be guaranteed for all States, taking particular account of the needs of developing countries. Some of those delegations expressed the view that such a regime should take into account the needs and interests of developing countries, as well as the geographical situations of certain countries.

67. Some delegations expressed the view that, since the geostationary orbit constituted an integral part of outer space, it was governed by the provisions of the Outer Space Treaty.

68. The view was expressed that the separation of agenda item 6 into sub-items 6 (a) and 6 (b) was practical from a thematic point of view and that it also

drew attention to the continued importance of each of the two issues considered under that agenda item.

69. As mentioned in paragraph 8 (b) above, at its 656th meeting, on 2 April, the Legal Subcommittee re-established its Working Group on agenda item 6 (a) under the chairmanship of Manuel Alvarez (Peru). In accordance with the agreement reached by the Subcommittee at its thirty-ninth session, endorsed by the Committee on the Peaceful Uses of Outer Space at its forty-third session, the Working Group convened to consider only matters relating to the definition and delimitation of outer space.

70. The Working Group on agenda item 6 (a) held 6 meetings. At its 673rd meeting, on 12 April, the Legal Subcommittee endorsed the report of the Working Group, which is contained in annex II to the present report.

71. The full text of the statements made by delegations during the discussion on agenda item 6 is contained in unedited verbatim transcripts (COPUOS/Legal/T.663-668 and 673).

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

72. The Subcommittee noted that the General Assembly, in its resolution 56/51, had endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Legal Subcommittee continue its consideration of review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as a single issue and item for discussion.

73. The Legal Subcommittee noted that at the thirty-ninth session of the Scientific and Technical Subcommittee, the Working Group on the Use of Nuclear Power Sources in Outer Space had finalized a report entitled "A review of international documents and national processes potentially relevant to the peaceful uses of nuclear power sources in outer space" (A/AC.105/781), in accordance with the multi-year work plan adopted by the Scientific and Technical Subcommittee at its thirty-fifth session. The Legal Subcommittee also noted that, based upon the contents

of the report and proposals of the Working Group, the Scientific and Technical Subcommittee would, at its fortieth session, in 2003, determine whether or not to take any additional steps concerning the information contained in the report.

74. The Legal Subcommittee agreed that, at the present time, opening a discussion on revision of the Principles was not warranted.

75. The view was expressed that States making use of nuclear power sources should conduct their activities in full accordance with the Principles, to prevent any collision or accident that would endanger outer space as well as the Earth.

76. The view was expressed that, as there was a real risk that a collision between space debris and space objects with nuclear power sources might cause serious damage, the use of nuclear power sources should be limited to deep space missions and that for such missions the necessary safety controls should be exercised.

77. The view was expressed that this item could remain as a single issue/item for discussion on the agenda of the Legal Subcommittee for its forty-second session, in 2003, in order to follow the work of the Scientific and Technical Subcommittee.

78. The full text of the statements made during the discussion on agenda item 7 is contained in unedited verbatim transcripts (COPUOS/Legal/T.659-661).

VII. Consideration of the Convention on International Interests in Mobile Equipment (opened to signature in Cape Town on 16 November 2001) and the preliminary draft Protocol on Matters Specific to Space Assets

79. The Legal Subcommittee noted that, pursuant to agreements reached at its fortieth session and at the forty-fourth session of the Committee on the Peaceful Uses of Outer Space, which had been subsequently endorsed by the General Assembly in resolution 56/51, an ad hoc consultative mechanism had been established to review issues relevant to that item. The Subcommittee also noted that, within the framework of

the ad hoc consultative mechanism, intersessional meetings had been hosted by the Government of France in Paris on 10 and 11 September 2001 and intersessional meetings had been hosted by the Government of Italy in Rome on 28 and 29 January 2002.

80. The Legal Subcommittee expressed its deep appreciation to the Governments of France and Italy for hosting the intersessional meetings of the ad hoc consultative mechanism and also expressed its thanks to ESA, the International Institute for the Unification of Private Law (Unidroit) and the Secretariat for their assistance in facilitating the holding of those meetings.

81. The Legal Subcommittee had before it the following documents:

(a) Preliminary draft protocol on matters specific to space assets of the Convention on International Interests in Mobile Equipment (A/AC.105/C.2/L.232);

(b) Report of the Secretariat entitled "Results of consultations undertaken through the ad hoc consultative mechanism established to review issues relating to the draft convention of the International Institute for the Unification of Private Law (Unidroit) on international interests in mobile equipment and the preliminary draft protocol thereto on matters specific to space property" (A/AC.105/C.2/L.233).

82. The Legal Subcommittee also had before it the following:

(a) The text of the Convention on International Interests in Mobile Equipment (signed at Cape Town on 16 November 2001) (A/AC.105/C.2/2002/CRP.3);

(b) Conference room paper entitled "Responses to the list of questions prepared by the Secretariat on the draft (Unidroit) convention on international interests in mobile equipment and the preliminary draft protocol thereto on matters specific to space property" (A/AC.105/C.2/2002/CRP.4).

83. The view was expressed that document A/AC.105/C.2/L.233 reflected the Secretariat's understanding of the deliberations of the ad hoc consultative mechanism and had not been approved by the participating States. In that delegation's view, the document had not adequately reflected that delegation's fundamental objection to the possibility of the United Nations being required to serve a

commercial function in assuming the role of either Supervisory Authority or Registrar under the provisions of the preliminary draft protocol on matters specific to space assets. That delegation also expressed the view that participation in the deliberations of the ad hoc consultative mechanism had not been as extensive as had been first expected and that, therefore, the conclusions of that mechanism should not be taken to reflect those of the Legal Subcommittee.

84. Other delegations expressed the view that document A/AC.105/C.2/L.233 was an accurate and fully satisfactory reflection of the proceedings of the ad hoc consultative mechanism, noting in particular that the conclusions reflected in section IV of the document had been subject to extensive consideration and approval by consensus by the States participating in the second intersessional meeting.

85. The conclusions of the ad hoc consultative mechanism adopted by the second intersessional meeting on 29 January 2002 are reproduced in annex III to the current report.

86. The Legal Subcommittee noted that a Diplomatic Conference to Adopt a Mobile Equipment Convention and an Aircraft Protocol had been held under the auspices of ICAO and Unidroit at Cape Town from 29 October to 16 November 2001 and that, as a result of the Diplomatic Conference, the Convention on International Interests in Mobile Equipment and the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment had been opened for signature in Cape Town on 16 November 2001.

87. The Legal Subcommittee also noted that, pursuant to a decision taken by the Governing Council of Unidroit at its eightieth session, held from 17 to 19 September 2001, the text of the preliminary draft protocol on matters specific to space property had been considered and amended by the Unidroit Steering and Revisions Committee in the light of the deliberations of the Diplomatic Conference in Cape Town and the ad hoc consultative mechanism. The title had been changed to read "Convention on International Interests in Mobile Equipment (opened to signature in Cape Town on 16 November 2001)—Preliminary Draft Protocol on Matters Specific to Space Assets". The text would be transmitted by Unidroit to Governments with a view to convening the Committee of Governmental Experts in late 2002.

88. The Legal Subcommittee welcomed the decision of the Governing Council of Unidroit to open the sessions of the Committee of Governmental Experts to all Member States and interested observers for the Committee on the Peaceful Uses of Outer Space, as well as representatives of the Office for Outer Space Affairs.

89. Some delegations expressed the view that the Convention and the preliminary draft protocol on matters specific to space assets had significant potential to facilitate the development of commercial activities in outer space by enhancing the availability of commercial financing for such activities, thereby bringing benefits to countries at all levels of economic and technological development.

90. The view was expressed that Unidroit should consider developing a commentary on the texts of the Convention and the preliminary draft protocol, explaining the potential benefits that might be derived from the implementation of the legal regime envisaged by those instruments, for distribution to all States.

91. Some delegations expressed the view that the Convention and the preliminary draft protocol should neither undermine nor compromise existing principles of international space law and that, in case of a conflict, the latter principles should prevail.

92. The view was expressed that it would be necessary to include an appropriate safeguard clause within the preambular section of the preliminary draft protocol explicitly indicating full respect for the established principles of space law, as contained in international treaties concluded under the auspices of the United Nations.

93. Other delegations expressed the view that a preambular paragraph would be insufficient to ensure the primacy of existing international space law. More expressed recognition of that primacy within the operative segment of the preliminary draft protocol would be necessary to adequately resolve any potential conflicts.

94. The view was expressed that any new international law instrument relating to activities in outer space, regardless of whether its focus was on private or public law issues, should be based within the established framework of the existing United Nations treaties on outer space. That delegation noted the difficulty of reconciling a text such as the preliminary

draft protocol with the existing principles of international space law in an effective and appropriate manner and expressed its concerns about both of the procedures that had been proposed in that regard. That delegation suggested that it might be preferable to consider the development of an entirely new international legal instrument that would comprehensively deal with the many and varied issues relating to commercial space activities.

95. The view was expressed that it would be important to take into account the important role of customary law in reflecting the appropriate relationship of the Convention and the preliminary draft protocol to existing principles of international space law, particularly considering the fact that numerous States had yet to ratify some or all of the existing outer space treaties.

96. The view was expressed that it would be premature to address the issue of the primacy of existing international space law until a comprehensive conformity examination had been completed on the final text of the protocol. However, that delegation's preliminary view was that there were no incompatibilities or conflicts.

97. Some delegations expressed their satisfaction with the concept of "space assets" as defined and used in the preliminary draft protocol. Other delegations expressed their continued concerns regarding that concept and the need to adequately determine its precise scope.

98. Some delegations expressed the view that the definition of and issues related to the concept of "associated rights" in the preliminary draft protocol should be subjected to further consideration.

99. The view was expressed that the problems that might arise in relation to existing international space law were not specific only to the Convention and the preliminary draft protocol; they concerned similar situations occurring in other areas of international law and also emerged in relations between the existing space treaties and national laws governing space activities adopted by individual States.

100. Some delegations expressed the view that further consideration needed to be given to the implications of transfers contemplated under the Convention and the preliminary draft protocol on States' obligations and rights under the United Nations treaties on outer space

and the ITU Constitution, Convention and Radio Regulations, particularly in instances of transfers from a national of one State to a national of another or from the territory of one State to the territory of another.

101. Some delegations expressed the view that it would be desirable to have the more active participation of ITU in the examination of the implications of the Convention and the preliminary draft protocol on States' obligations and rights under the ITU Constitution, Convention and Radio Regulations.

102. The view was expressed that an important consideration was whether it might be possible to address issues relating to transfers in advance of the particular transactions through arrangements between States parties to the future protocol on matters specific to space assets or through language within the text of the protocol itself, or whether it would be necessary to address those issues on a case-by-case basis.

103. The view was expressed that issues relating to domestic regulatory practice would also require further consideration, particularly those relating to the licensing of any transfers of satellite operations and the export control implications of possible transfers contemplated under the Convention and the preliminary draft protocol.

104. Some delegations expressed the view that consideration should be given to amending the preliminary draft protocol to the effect that no transfers could be made to creditors located in a different jurisdiction without the approval of the relevant competent governmental authority.

105. The view was expressed that, in order to resolve issues relating to the correlation between the liability obligations for a "launching State" under the Liability Convention and the possible transfers of ownership or possession contemplated under the Convention and the preliminary draft protocol, it might be appropriate to provide for a right of recourse that could be exercised by such "launching States" against those actually in control of the object causing damage.

106. The view was expressed that it would be desirable for the Legal Subcommittee to engage in an examination of the issues associated with the transfer of space assets in a wider context than the current item, as those issues arose in various scenarios in addition to

those envisaged under the Convention and the preliminary draft protocol.

107. Some delegations expressed the view that further consideration should be given to the implications of the Convention and the preliminary draft protocol for partially publicly funded space assets and ensuring that the operation of creditors' remedies would not compromise the continuation of public services provided by particular space assets.

108. Some delegations expressed the view that the role of Supervisory Authority envisaged by the Convention and the preliminary draft protocol should be entrusted to an international intergovernmental organization of high repute and could appropriately be assumed by the United Nations or one of its organs. The view was expressed that, if the United Nations was to assume the role of the Supervisory Authority, it should enjoy the full extent of privileges and immunities provided for by the Convention on the Privileges and Immunities of the United Nations (General Assembly resolution 22 A (I)).

109. Some delegations expressed the view that the Secretary-General of the United Nations should be designated as the Supervisory Authority and the performance of its functions should be entrusted to the Office for Outer Space Affairs.

110. The view was expressed that, before a decision could be made concerning the possible role of the United Nations as Supervisory Authority, it would be necessary to obtain an opinion on the matter from the Legal Counsel of the United Nations, as well as a determination of the financial and human resources required to fulfil such role.

111. Some delegations expressed the view that the Secretariat should be requested to conduct a preliminary examination of the possible legal, financial and other requirements for the operation of the Supervisory Authority under the Convention and the preliminary draft protocol, with a view to providing a report to the Legal Subcommittee at its forty-second session, in 2003.

112. Some delegations expressed the view that the Committee on the Peaceful Uses of Outer Space, as a subsidiary body of the General Assembly, and the Office for Outer Space Affairs, as part of the United Nations Secretariat, could not be appropriately compared with ICAO, a specialized agency of the

United Nations system. In the view of those delegations, while the latter type of organization could conceivably assume the commercially oriented role of the Supervisory Authority envisaged by the Convention and the preliminary draft protocol, the assumption of such a role by the Committee on the Peaceful Uses of Outer Space or the Office for Outer Space Affairs would be inappropriate.

113. Some delegations expressed the view that it might be preferable for the role of the Registrar under the Convention and the preliminary draft protocol to be carried out by a private entity. However, other delegations expressed the view that that function might also be carried out by an international organization.

114. Some delegations expressed the view that it might be desirable to establish linkage between the information to be contained in the registry envisaged by the Convention and the preliminary draft protocol and the Register maintained by the Secretary-General of the United Nations under the Registration Convention, in order to allow adequate access of States to both sets of information. Such access could facilitate the identification of the parties truly responsible in the case of damage caused by space objects.

115. Some delegations expressed the view that the preliminary draft protocol would most appropriately be developed further within the context of the Unidroit intergovernmental meetings, and that the role of the Committee on the Peaceful Uses of Outer Space and its Legal Subcommittee in that regard could be limited to monitoring such development and considering only those issues of public international law referred to them for consideration by Unidroit. Other delegations expressed the view that the Committee and its Legal Subcommittee had a continuing role to fulfil in the further development of the preliminary draft protocol on matters specific to space assets.

116. Some delegations expressed the view that this item should be retained on the agenda of the Legal Subcommittee for its forty-second session, in 2003.

117. Some delegations expressed the view that the item should be retained on the agenda of the Legal Subcommittee until the draft protocol on matters specific to space assets had been fully developed and finalized.

118. The full text of the statements made by delegations during the discussion on agenda item 8 is

contained in unedited verbatim transcripts (COPUOS/Legal/T.666-670).

VIII. Review of the concept of the “launching State”

119. The Legal Subcommittee recalled that the General Assembly, in its resolution 56/51, had endorsed the recommendation of the Committee on the Peaceful Uses of Outer Space that the Subcommittee continue its review of the concept of the “launching State”, in accordance with the work plan adopted by the Committee, and noted that the Subcommittee would reconvene its working group to consider that item.

120. In accordance with the third year of the work plan,³ the Legal Subcommittee reviewed measures to increase adherence to and promote the full application of the Convention on International Liability for Damage Caused by Space Objects (the “Liability Convention”) and the Convention on Registration of Objects Launched into Outer Space (the “Registration Convention”).

121. As indicated in paragraph 8 (c) above, at its 656th meeting, the Legal Subcommittee established a Working Group on agenda item 9, under the chairmanship of Kai-Uwe Schrogl (Germany).

122. The Working Group on agenda item 9 held 6 meetings. At its 673rd meeting, on 21 April, the Legal Subcommittee endorsed the report of the Working Group, which is contained in annex IV to the present report. The Subcommittee also endorsed the Working Group’s conclusions for the three-year work plan on the review of the concept of the “launching State”, which are contained in the appendix to annex IV.

123. The Subcommittee had before it the report of the Secretariat on the review of the concept of the “launching State” (A/AC.105/768).

124. The view was expressed that problems had not arisen in practice with regard to the definition of the term “launching State” as used in the Liability Convention and the Registration Convention. That delegation was of the view that both governmental and private launches were occurring on a regular basis and

were able to proceed with the support of private insurance.

125. The view was expressed that general law on liability would apply to space activities conducted by non-parties to the Liability Convention and the Registration Convention.

126. Some delegations expressed the view that there should be a differentiated approach to international liability for joint launches, especially with respect to States that participated only by making their territories or facilities available.

127. The view was expressed that the State of registry for a space object should assume the liability as a major launching State for the space object. That delegation expressed the view that the elaboration of a single, comprehensive convention on outer space law would help to address that and other issues relating to the concept of the “launching State”.

128. The view was expressed that, while the Registration Convention required at least one launching State to be a State of registry for a space object, the nature and criteria of registration were not explicitly linked to a launching State’s obligations under the Liability Convention or a State’s responsibility under the Outer Space Treaty.

129. The view was expressed that the development of a single, comprehensive convention on outer space law would help to define the concept of the “launching State”.

130. The full text of the statements made by delegations during the discussion on agenda item 9 is contained in unedited verbatim transcripts (COPUOS/Legal/T.659-664 and 673).

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

131. The Legal Subcommittee recalled that the General Assembly, in its resolution 56/51, had noted that the Subcommittee, at its forty-first session, would submit its proposals to the Committee on the Peaceful

Uses of Outer Space for new items to be considered by the Subcommittee at its forty-second session, in 2003.

132. Some delegations expressed the view that the appropriateness and desirability of drafting a universal comprehensive convention on international space law should be considered by the Legal Subcommittee under a sub-item of the agenda item entitled "Status and application of the five United Nations treaties on outer space", as proposed in a working paper submitted by China, Greece and the Russian Federation (A/AC.105/C.2/L.236). Those delegations expressed the view that new developments in space activities, including dramatic transformations in space activities and applications, and increasing participation by private companies and non-governmental entities, had created lacunae in the international space law system and needed to be addressed. Those delegations also expressed the view that the Subcommittee, under the proposed sub-item, should only discuss the appropriateness and desirability of drafting a universal comprehensive convention and should not actually start drafting a convention and that the development of the convention should not reopen the debate on existing principles of international space law contained in the United Nations treaties on outer space.

133. However, the view was expressed that a single, comprehensive treaty on outer space was neither necessary, desirable nor feasible, since the United Nations treaties and principles on outer space were continuing to meet the need for a broad and flexible structure to accommodate rapidly changing technology. That delegation also expressed the view that even initial consideration of the desirability of such a treaty would be destabilizing and would cause widespread confusion concerning the future viability of the existing legal regime.

134. Some delegations expressed the view that a new item on discussion on an international convention based on the Principles Relating to Remote Sensing of the Earth from Outer Space (General Assembly resolution 41/65, annex) should be included in the agenda for the forty-second session of the Legal Subcommittee. Those delegations expressed the view that the development of such a convention was necessary to update the Principles and to develop rules for new situations resulting from technological innovations and commercial applications of remote sensing.

135. Some delegations expressed the view that the Legal Subcommittee should consider an agenda item on the review of existing norms of international law applicable to space debris.

136. The Legal Subcommittee conducted informal consultations coordinated by Niklas Hedman (Sweden) with a view to reaching agreement on the various proposals before it for consideration under this agenda item.

137. The Legal Subcommittee agreed on the following items to be proposed to the Committee on the Peaceful Uses of Outer Space for inclusion in the agenda of the Subcommittee for its forty-second session:

Regular items

1. Opening of the session and adoption of the agenda.
2. Statement by the Chairman.
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 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 of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment (opened to signature in Cape Town on 16 November 2001):

- (a) Considerations relating to the possibility of the United Nations serving as a Supervisory Authority under the preliminary draft protocol;
- (b) Considerations relating to the relationship between the terms of the preliminary draft protocol and the rights and obligations of States under the legal regime applicable to outer space.

A new working group should be established to consider sub-items 8 (a) and 8 (b) separately. The Subcommittee requested the Secretariat to prepare a report on sub-item 8 (a) in consultation with the United Nations Legal Counsel for consideration by the working group.

Items considered under work plans

[none]

New items

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

138. The Legal Subcommittee agreed that, as part of the consideration of the Working Group on agenda item 4, entitled “Status and application of the five United Nations treaties on outer space”, the Working Group would review the application and implementation of the concept of the “launching State”, as reflected in the conclusions of the Subcommittee’s consideration of agenda item 9, including the report of the Secretariat (A/AC.105/768).

139. The view was expressed that the consideration of the application and implementation of the concept of the “launching State” in the Working Group on agenda item 4 should be without prejudice to the consideration in the Working Group of any issue related to the implementation of the five United Nations treaties on outer space.

140. The Legal Subcommittee agreed that the Working Group to be established under agenda item 4 could consider any new issues—similar to the issue of the application and implementation of the concept of the “launching State”—that might be raised in discussions

in the Working Group, provided that those issues fell within the existing mandate of the Working Group.

141. The Legal Subcommittee noted that the sponsors of the following proposals for new items to be included in the agenda for the Subcommittee intended to retain their proposals for possible discussion at subsequent sessions of the Subcommittee:

(a) Sub-item under the item entitled “Status and application of the five United Nations treaties on outer space”, to discuss the issue of appropriateness and desirability of drafting a universal comprehensive convention on international space law, proposed by China, Greece and the Russian Federation (A/AC.105/C.2/L.236);

(b) Discussion on an international convention based on the Principles Relating to Remote Sensing of the Earth from Outer Space, proposed by Brazil and Greece;

(c) Review of the Principles Governing the Use by States of Artificial Earth Satellites for International Direct Television Broadcasting, with a view to possibly transforming the text into a treaty in the future, proposed by Greece;

(d) Review of existing norms of international law applicable to space debris, proposed by the Czech Republic and Greece.

142. The full text of the statements made by delegations during the discussion on agenda item 10 is contained in unedited verbatim transcripts (COPUOS/Legal/T.667-671).

Notes

¹ *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 20* and corrigendum (A/56/20 and Corr.1), para. 225.

² United Nations, *Treaty Series*, vol. 1825, No. 31251.

³ *Official Records of the General Assembly, Fifty-fourth Session, Supplement No. 20* and corrigendum (A/54/20 and Corr.1), para. 114.

Annex I

Report of the Chairman of the Working Group on agenda item 4, entitled “Status and application of the five United Nations treaties on outer space”

1. In accordance with General Assembly resolution 56/51 of 10 December 2001, the Legal Subcommittee, at its 656th meeting, on 2 April 2002, established a working group on agenda item 4, entitled “Status and application of the five United Nations treaties on outer space”. At its 658th meeting, on 3 April, the Subcommittee elected Vassilios Cassapoglou (Greece) Chairman of the Working Group.

2. The Working Group held 6 meetings, on 3-5 and 12 April. At the 1st meeting of the Working Group, on 3 April, the Chairman recalled that, pursuant to General Assembly resolution 56/51, the Working Group should be established for three years, from 2002 to 2004, and that its terms of reference should include the status of the treaties, review of their implementation and obstacles to their universal acceptance, as well as promotion of space law, especially through the United Nations Programme on Space Applications.

3. The Chairman, in his introductory remarks, also pointed out that during its meetings the Working Group could examine, *inter alia*:

(a) The status of acceptance of each of the five United Nations treaties on outer space;

(b) Problems related to the fact that a number of States were parties to some of the later more specific United Nations treaties on outer space (such as the Convention on International Liability for Damage Caused by Space Objects (the “Liability Convention”, General Assembly resolution 2777 (XXVI), annex)) but were not parties to the main treaty, the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the “Outer Space Treaty”, Assembly resolution 2222 (XXI), annex);

(c) Arguments in favour of the participation of States in the United Nations treaties on outer space—not only in view of the many immediate practical benefits States would acquire (such as closer international cooperation, access to space facilities,

including uses of data), but particularly in cases where States might be victims of damage caused by space objects or parties in an international dispute concerning such damage, in which specific rules applied that were entirely different from the rules of classic international law applied in other fields such as air law, maritime law and nuclear law;

(d) The role of the United Nations treaties on outer space as the basis for national space legislation, especially in regulating the involvement of the private sector in outer space activities;

(e) The legal value of the declaration of acceptance by an international intergovernmental operational organization following its privatization;

(f) The intensification of relations between the Committee on the Peaceful Uses of Outer Space and specialized agencies of the United Nations system dealing with outer space matters (such as the Food and Agriculture Organization of the United Nations, the United Nations Educational, Scientific and Cultural Organization, the International Telecommunication Union, the World Meteorological Organization and the World Intellectual Property Organization);

(g) Mechanisms for the worldwide promotion of space law, not only through education, but also through the provision of technical assistance to Governments for the development of national space legislation.

4. The view was expressed that, while it might be desirable to promote universal acceptance of the five United Nations treaties on outer space, efforts to that end at the present time were likely to meet with limited success. Recent deliberations within, *inter alia*, the Legal Subcommittee had indicated a possible lack of clarity of the existing treaties on particular issues and concepts and a potential need to amend or supplement the treaties in order to deal with new developments in space activities. The continuing uncertainty surrounding the treaties in their current state would result in non-parties taking a cautious approach to their

acceptance until the uncertainty had been adequately resolved.

5. Some delegations expressed the view that it would be appropriate to discuss the desirability and feasibility of drafting a universal comprehensive convention on space law and that an ad hoc informal open-ended working group should be convened for that purpose, as had been previously proposed in a working paper submitted by China, Colombia and the Russian Federation (A/AC.105/C.2/L.226). Those delegations were of the view that the current Working Group should, through the Legal Subcommittee, make a recommendation, to be approved by the Committee on the Peaceful Uses of Outer Space for adoption by the General Assembly, on the establishment of such an ad hoc informal open-ended working group by the Legal Subcommittee at its forty-second session, in 2003.

6. Other delegations expressed the view that the existing United Nations treaties on outer space provided sufficient framework for current space activities and that seeking to negotiate a universal comprehensive convention on space law would tend to undermine efforts to encourage universal acceptance of those treaties. Those delegations were of the view that such efforts to encourage universal acceptance of the treaties should be the Working Group's primary focus of attention.

7. Some delegations expressed the view that the proposal submitted by China, Colombia and the Russian Federation was only intended to enable a discussion of the desirability and feasibility of drafting a universal comprehensive convention on space law, and not to commence with the drafting of the convention as such. Therefore, the proposal was not in any way incompatible with efforts to encourage universal acceptance of the existing treaties.

8. The view was expressed that it might be useful for the Working Group to engage in a more detailed examination of the possible obstacles to acceptance of each of the five United Nations treaties on outer space in turn, perhaps starting with the legal instrument that currently had the least number of States parties—the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies (the "Moon Agreement", General Assembly resolution 34/68, annex).

9. The view was expressed that it might be useful to direct a request to States that were not parties to the five United Nations treaties on outer space to indicate the possible obstacles to their acceptance of those treaties.

10. The view was expressed that it might be useful for the Working Group to prepare a list of national laws that had been developed by various States to implement the provisions of the United Nations treaties on outer space, as well as a list of benefits that might result from acceptance of those treaties. That information could then be transmitted to non-parties in order to encourage their acceptance of the treaties.

11. The view was expressed that certain States that had previously been part of the former Union of Soviet Socialist Republics (USSR) might not yet have indicated their positions regarding possible succession to one or more of the treaties to which the former USSR had been a party and that it might be appropriate for the Secretariat to transmit a request to the relevant depositaries of the treaties in question to consider seeking clarification from such States in that regard.

12. The attention of the Working Group was drawn to the possibility that the limited practical use of the information provided by States to the Secretary-General under the Convention on Registration of Objects Launched into Outer Space (the "Registration Convention", General Assembly resolution 3235 (XXIX), annex), in terms of identifying space objects, and the potential confusion regarding the legal effect of registration of space objects might undermine the effective application of that convention.

13. The view was expressed that, while information provided by States of registry to the Secretary-General under the Registration Convention was sufficient for identification in cases where there was only one launching State for a particular space object, that was not so in cases where there were multiple launching States for a particular space object. That delegation was of the view that any progress that the Working Group might achieve in addressing that issue would be quite useful.

14. The attention of the Working Group was drawn to the potentially crucial role of intergovernmental organizations in promoting the development and acceptance of international space law through their

own space-related activities and their interaction with their member States.

15. The Working Group welcomed the contribution to the development and promotion of space law of numerous activities that had been and would be undertaken by intergovernmental and non-governmental organizations around the world. Special mention was made of the European Centre for Space Law (ECSL) for contributing to the dissemination of knowledge of space law through, inter alia, its annual summer courses and the “Practitioners’ Forum”, as well as the Institute of Air and Space Law (IISL) of the University of Cologne and the German Aerospace Center (DLR) for jointly organizing “Project 2001”, on the Legal Framework for the Commercial Use of Outer Space. The Working Group also noted with satisfaction the following events:

(a) The Workshop on International Legal Regimes Governing Space Activities, organized in Scottsdale, Arizona, United States of America, from 2 to 6 December 2001 by the American Astronautical Society, together with ECSL, IISL, the National Space Society and the Office for Outer Space Affairs of the Secretariat;

(b) The Workshop on Space Law organized in Rabat on 15 and 16 February 2002 by the Royal Centre for Remote Sensing (CRTS) of Morocco with the assistance of ECSL;

(c) The First International Conference on the State of Remote Sensing Law, to be organized in Oxford, Mississippi, United States, on 18 and 19 April 2002 by the National Remote Sensing and Space Law Center of the University of Mississippi School of Law;

(d) The Fiftieth Anniversary Conference of the Institute of Air and Space Law of McGill University, to be organized in Montreal, Canada, from 19 to 21 April 2002 by McGill University;

(e) The Forty-fifth Colloquium on the Law of Outer Space, to be organized in Houston, Texas, United States, from 14 to 18 October 2002 by IISL, in conjunction with the World Space Congress of the International Astronautical Federation.

16. The Working Group agreed that every effort should be made to encourage and promote the widest distribution of information on those and other activities on space law.

Annex II

Report of the Chairman of the Working Group on agenda item 6 (a), entitled “Matters relating to the definition and delimitation of outer space”

1. At its 656th meeting, on 2 April, the Legal Subcommittee re-established its Working Group on agenda item 6 (a), entitled “Matters relating to the definition and delimitation of outer space”. At its 663rd meeting, on 5 April, the Subcommittee elected Manuel Alvarez (Peru) Chairman of the Working Group.
2. The Chairman drew the attention of the Working Group to the fact that, in accordance with the agreement reached at the thirty-ninth session of the Legal Subcommittee, endorsed by the Committee on the Peaceful Uses of Outer Space at its forty-third session, the Working Group would convene to consider only matters relating to the definition and delimitation of outer space.
3. The Working Group had before it the following documents:
 - (a) Note by the Secretariat entitled “Questionnaire on possible legal issues with regard to aerospace objects: replies from member States” (A/AC.105/635 and Add.1-6);
 - (b) Report of the Secretariat entitled “Historical summary on the consideration of the question on the definition and delimitation of outer space” (A/AC.105/769 and Corr.1);
 - (c) Note by the Secretariat entitled “Comprehensive analysis of the replies to the questionnaire on possible legal issues with regard to aerospace objects” (A/AC.105/C.2/L.204).
4. Some delegations expressed the view that, in order to make progress on the question of the definition and delimitation of outer space, international organizations should be invited to submit replies to selected and appropriately amended questions from the questionnaire on possible legal issues with regard to aerospace objects. The replies received would serve to broaden the information available to the Working Group and would be useful to the Working Group in its consideration of the question of the definition and delimitation of outer space.
5. Some delegations expressed the view that, while they valued the contributions that international organizations could make to the work of the Working Group and the Legal Subcommittee, it would not be appropriate to distribute the questionnaire on aerospace objects to international organizations. Those delegations were of the view that the questionnaire was aimed at collecting information on States’ positions concerning questions related to issues of territorial boundaries and involved complex political questions that could only be addressed by States.
6. The view was expressed that the question on the definition and delimitation of outer space remained a topical and important issue to be considered by the Working Group. That delegation believed that the question could be resolved, as had been done in the case of the United Nations Convention on the Law of the Sea,^a by developing a single comprehensive convention on space law.
7. The view was expressed that a proposal presented several years before by the former Union of Soviet Socialist Republics had included the following ideas: (a) a delimitation of outer space at 100-110 km above mean sea level; (b) space objects might enjoy a right of innocent passage through airspace during take-off and re-entry into the Earth’s atmosphere; and (c) if a foreign space object manoeuvred below 100-110 kilometres above mean sea level, that object should be subject to the permission of the State concerned and should be subject to that State’s laws applicable to its airspace.
8. The Working Group reviewed the questionnaire on aerospace objects and agreed that questions 7 and 8 should read as follows:

Question 7: Are there precedents with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth’s atmosphere and does international customary law exist with respect to such passage?

Question 8: Are there any national and/or international legal norms with respect to the passage of aerospace objects during take-off and/or re-entry into the Earth's atmosphere?

9. The Working Group also had before it a conference room paper submitted by the Russian Federation entitled "Some differences between legal regimes of air space and outer space" (A/AC.105/C.2/2002/CRP.10).

10. The Working Group agreed to add the following new question to the questionnaire on aerospace objects:

Question 10: What are the differences between the legal regimes of airspace and outer space?

11. The Working Group agreed that the questionnaire, as amended by the Working Group, should be circulated to all Member States of the United Nations.

Notes

^a United Nations, *Treaty Series*, vols. 1833-1835, No. 31363.

Annex III

Conclusions of the consultations undertaken through the ad hoc consultative mechanism established to review issues relating to the draft convention of the International Institute for the Unification of Private Law (Unidroit) on international interests in mobile equipment and the preliminary draft protocol thereto on matters specific to space property

1. In the consultations undertaken through the ad hoc consultative mechanism, it was noted that the space protocol was designed to address the practical requirements of commercial space activity for the potential benefit of countries at all levels of economic development. The space protocol was therefore an important initiative that deserved the attention of States.
2. It was noted that the space protocol responded to the evolution of space activities and the development of an economic framework in that area, involving private and public interests.
3. It was noted that the principles embodied in the United Nations treaties on outer space would provide a framework within which the space protocol should be developed. It was also agreed that appropriate language should be incorporated within the text of the space protocol to the extent necessary to ensure the integrity of and respect for the rights and obligations of States in accordance with those principles. In that context, further consideration should be given to the substantive and procedural relationship between the rights and obligations of States under existing international space law and the rights and obligations of States arising from the space protocol.
4. It was agreed that the interaction of the space protocol and the basic instruments of the International Telecommunication Union, including the Radio Regulations, might require further consideration.
5. It was noted that some States had developed or would develop national space laws and licensing regimes that, among other things, implemented the obligations of States under international space law. It was agreed that consideration of practical issues arising from the operation of national space laws might be appropriate during further development of the space protocol. It was also noted that issues arising under the space protocol with respect to international responsibility and liability and effective control and continuing supervision of space activities by States required further consideration.
6. It was agreed that the financing of space assets that provided public services or utilized dual-use technologies required further consideration.
7. It was agreed that a system for registering international interests in space assets should enjoy the confidence of potential users. To that end, the supervisory authority could be an intergovernmental organization.
8. It was noted that, due to the possible difficulty of subjecting existing intergovernmental organizations to liability under national law, as currently envisaged for the registrar in the space protocol, the functions of the registrar could be carried out by a private entity.
9. It was agreed that the possibility of the United Nations carrying out the functions of the supervisory authority and/or registrar should be further examined.
10. It was agreed that the establishment of the supervisory authority and/or the registrar would be conditioned upon an adequate funding structure. The Secretariat could therefore be requested to conduct a preliminary examination, in consultation with the International Institute for the Unification of Private Law (Unidroit) and other organizations, of possible requirements for the operation of those two entities.
11. It was noted that a number of issues remained to be resolved within the framework of the space protocol. Having regard for resolution 3 of the Diplomatic Conference to Adopt a Mobile Equipment Convention and an Aircraft Protocol, adopted on 16 November 2001, States members of the Committee on the Peaceful Uses of Outer Space should be

encouraged to contribute to the drafting of the space protocol at all stages of its development.

12. The intention of Unidroit to open its intergovernmental meetings on the space protocol to all States members and interested observers of the Committee on the Peaceful Uses of Outer Space, as well as to representatives of the Office for Outer Space Affairs, was a welcome initiative, and all those concerned should be encouraged to participate in the meetings.

13. It was noted that the Legal Subcommittee should consider whether or not to retain the subject of the preliminary draft protocol on matters specific to space assets on its agenda beyond 2002.

14. It was agreed that a message of gratitude and deep appreciation should be conveyed to the Government of France, for hosting a working meeting in Paris on 10 and 11 September 2001, and to the Government of Italy, for hosting a working meeting in Rome on 28 and 29 January 2002.

Annex IV

Report of the Chairman of the Working Group on agenda item 9, entitled “Review of the concept of the ‘launching State’”

1. At its 656th meeting, on 2 April 2002, the Legal Subcommittee established a Working Group on agenda item 9, entitled “Review of the concept of the ‘launching State’”, with Kai-Uwe Schrogl (Germany) as its Chairman.
2. The Working Group had before it a report by the Secretariat on the concept of the “launching State” (A/AC.105/768), which synthesized information presented during the first two years of the work plan, in 2000 and 2001.
3. The Working Group also had before it a proposal by the Chairman for conclusions of the Working Group (A/AC.105/C.2/L.234). Following consideration of the proposal, the Working Group adopted its conclusions of the three-year work plan, contained in the appendix to the present report.
4. The Working Group stressed that the conclusions did not constitute or contain an authoritative interpretation of or proposed amendments to the Convention on International Liability for Damage Caused by Space Objects (General Assembly resolution 2777 (XXVI), annex) or the Convention on Registration of Objects Launched into Outer Space (Assembly resolution 3235 (XXIX), annex).
5. It was noted that the following questions had also been addressed in the Working Group: whether the act of registering a space object by a State under the Registration Convention itself implied acceptance of the status of launching State under the Liability Convention and thus possible liability for damage under the latter Convention; whether the concept of the “launching State” could be applied in a manner reflecting different phases of space activities and changes in ownership of space objects in outer space; how the launching State concept could be applied to activities of non-governmental entities that might not have been foreseen when the United Nations treaties on outer space were being drafted; and whether the nationality of non-governmental entities operating launch services was a relevant criterion for determining whether a State was responsible for those activities under 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 (General Assembly resolution 2222 (XXI), annex) or was liable under the Liability Convention.
6. It was also noted that the following additional questions had been raised in the Working Group: whether the current space law treaties were satisfactory as interpreted since their entry into force; and whether other relevant international agreements and domestic laws were able to solve any problems that might exist.
7. The view was expressed that, in that context, it would be useful to refer also to general international law concerning the responsibility of a State for activities carried out by non-governmental entities under the State’s jurisdiction and control.
8. Some delegations expressed the view that the Working Group’s conclusions should form the basis for a separate General Assembly resolution on recommendations concerning the implementation of the concept of the “launching State”.
9. However, the view was also expressed that such a separate General Assembly resolution would not be desirable.
10. The view was expressed that harmonized practices referred to in the conclusions of the Working Group (see appendix, para. 18) could in no way interpret or amend relevant provisions of any United Nations treaty on outer space, since amendments could be made only under the procedures established by the treaty in question and official interpretations could be given only by conferences of States parties to the respective treaties. For instance, harmonized practices should in no way prejudice the rights of potential victims of damage caused by space objects.

11. The view was expressed that there had been no case where a State had applied for damages under the Liability Convention.

12. However, the view was also expressed that a claim for compensation for damage had been duly presented to the launching State of the Cosmos 954 satellite, in accordance with the Liability Convention, following the disintegration of that satellite over Canadian territory in 1978.

13. However, the view was also expressed that that payment had been a gesture of good will.

14. There was agreement that the Working Group had been a good example of how to make efficient use of the possibilities provided by the new structure of the agenda for the Legal Subcommittee and that the discussions in the Working Group had paved the way for a high-quality, constructive dialogue among member States on that subject.

Appendix

Conclusions of the Working Group on agenda item 9, entitled “Review of the concept of the ‘launching State’”

1. The term “launching State” is an important concept in space law. It is based on article VII of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies (the “Outer Space Treaty”, General Assembly resolution 2222 (XXI), annex and formulated identically in article I (c) of the Convention on International Liability for Damage Caused by Space Objects (the “Liability Convention”, resolution 2777 (XXVI), annex) and article I (a) of the Convention on Registration of Objects Launched into Outer Space (the “Registration Convention”, resolution 3235 (XXIX), annex) as follows:

“(c) The term launching State means:

“(i) A State which launches or procures the launching of a space object;

“(ii) A State from whose territory or facility a space object is launched;”

It identifies *inter alia* those States which may be liable for damage caused by a space object and which would have to pay compensation in such a case. Furthermore, a launching State is responsible for registering a space object consistent with the Outer Space Treaty and the Registration Convention.

2. The Liability Convention entered into force in 1972, and the Registration Convention entered into force in 1976. Changes in space activity since that time include the continuous development of new technologies, an increase in the number of States carrying out space activities, an increase in international cooperation in the peaceful uses of outer space and an increase in space activities carried out by non-governmental entities.

3. Based on a proposal by certain European countries (A/AC.105/C.2/L.211/ Rev.1) and following intersessional consultations in Bonn on 9 December 1998 (A/AC.105/L.217), the Legal Subcommittee conducted a review of the concept of the launching State under a three-year work plan, during its sessions from 2000 to 2002. The Subcommittee established a

Working Group to consider the issue, under the Chairmanship of Kai-Uwe Schrogl (Germany).

4. Under the three-year work plan, the Working Group considered the following issues, from the Legal Subcommittee’s thirty-ninth session, in 2000, to its forty-first session, in 2002:

2000	Special presentations on new launch systems and ventures
2001	Review of the concept of the “launching State” as contained in the Liability Convention and the Registration Convention as applied by States and international organizations
2002	Review of measures to increase adherence to and promote the full application of the Liability Convention and the Registration Convention

5. The Working Group noted that its conclusions did not constitute an authoritative interpretation of or proposed amendments to the Registration Convention or the Liability Convention.

6. The Working Group considered, following technical presentations at the thirty-seventh session of the Scientific and Technical Subcommittee, in 2000, new launch systems and ventures and other aspects of space activity that might raise questions of interpretation under the Liability Convention and the Registration Convention. The Working Group also examined existing State practice regarding the concept of the launching State, including the provisions of national space laws and international agreements. That illustrated how States were implementing their obligations under the Liability Convention, the Registration Convention and other international agreements and how States were addressing some issues of interpretation under those agreements in a practical context. Special presentations at the Scientific and Technical Subcommittee were compiled and distributed as conference room paper A/AC.105/C.2/2000/CRP.8. Presentations at the Legal

Subcommittee were compiled and distributed as conference room papers A/AC.105/C.2/2000/CRP.12, A/AC.105/C.2/2001/CRP.5 and A/AC.105/C.2/2001/CRP.10.

7. In 2002, the final year of the work plan, the Working Group reviewed measures to increase adherence to and promote the full application of the Liability Convention and the Registration Convention. The findings and recommendations of the Working Group are set out below.

8. The Working Group noted that, as of April 2002, the Liability Convention had become binding for 82 States and the Registration Convention had become binding for only 44 States; in addition, 97 States were parties to the Outer Space Treaty. The Working Group noted with concern the relatively low level of participation in those treaties, although almost all spacefaring nations had ratified or implemented the instruments and some international intergovernmental organizations had declared their acceptance of the rights and obligations provided for in the conventions. The Working Group expressed the hope that Member States that had not yet done so would consider binding themselves to those conventions. The Working Group stressed that the conventions offered important benefits to all countries, not only to spacefaring countries, in particular by establishing that a launching State was absolutely liable to pay compensation for damage caused by its space object on the surface of the Earth or to aircraft in flight and by assisting in the identification of space objects. However, those provisions were only applicable to States that adhered to the relevant instruments.

9. The Working Group noted that some questions of interpretation under the Liability Convention and the Registration Convention were being addressed on a regular basis by national space regulatory bodies and intergovernmental organizations that had declared their acceptance of the rights and obligations provided for in the Liability Convention and the Registration Convention. Arrangements such as launch marketing ventures and international financing of space objects, for instance, required the participating States to analyse whether they were States "procuring the launch" of the space object in question. National authorities were interpreting "activities in outer space" to determine which activities of non-governmental

entities they would authorize and supervise under article VI of the Outer Space Treaty.

10. The Working Group recommended that States conducting space activities consider steps to implement national laws to authorize and provide continuing supervision of the activities of their nationals in outer space and to implement their international obligations under the Liability Convention, the Registration Convention and other international agreements. The Working Group noted that the implementation of national legal provisions on space could benefit the country concerned in ways such as: (a) effecting the country's jurisdiction and control over the space object; (b) reducing the risk of launch accidents and other damage in connection with space activities; (c) providing fast and effective compensation for such damage; and (d) providing mechanisms for a government that is internationally liable under the Liability Convention to receive indemnification from any non-governmental entities that caused the damage. The Working Group noted that the Office for Outer Space Affairs could serve as a resource for legal information and assistance for countries seeking to develop national space laws, in particular developing countries.

11. The Working Group took note of a proposal from the representative of the International Law Association for elements, or "building blocks", for national space legislation, including: (a) authorization of space activities (interpretation of the term "space activities"; application to activities with regard to territory and legal or natural persons; observation of principles in the United Nations treaties on outer space, such as preventing harmful contamination; sharing the financial risk of liability between governmental and non-governmental actors; and observation of the obligation concerning cooperation and mutual assistance); (b) supervision of space activities (through periodical information either provided by the owner of an authorization or collected by a public authority concerning the terms of the authorization; through sanctions in case of non-observance of the terms of the authorization; and through revocation or suspension of the authorization in the case of non-observance of its terms); (c) registration of space objects (interpretation of the concept of space object; setting up a national registry; determination of the supervisory authority; content of entries in the registry (the five items of information to be provided under article IV,

paragraph 1, of the Registration Convention); additional information such as the mass of the space object; a safety assessment when a nuclear power source is involved; registration of non-functional objects and objects that have re-entered the Earth's atmosphere; possibility of changes to the registered information; and access to the registry); (d) indemnification regulation (implementation of a right of recourse if the (launching) State has paid indemnification to another State under article VII of the Outer Space Treaty and under the Liability Convention, even if the damage has been caused solely by a non-governmental entity; and indemnification limited to a certain fixed sum or to the insured sum, beyond which the State can guarantee payment (problem of fair competition)); and (e) additional regulations, with all points mentioned linked to the problem of "fair competition" (regulation of insurance, patent law and international property issues); and export control regulation (because of the ongoing discussions of the International Institute for the Unification of Private Law (Unidroit) on international interests in space property, special regulations on this issue should not be implemented on a national basis at the moment). The Working Group viewed the proposal as identifying useful elements for States to consider in developing national space legislation.

12. The Working Group noted that provisions of existing national space laws could also serve as a useful resource for countries seeking to develop national space laws and that the following documents, which had been considered by the Working Group during the course of its work, had provided a review of national space law provisions:

(a) Review of existing national space legislation illustrating how States are implementing, as appropriate, their responsibilities to authorize and provide continuing supervision of non-governmental entities in outer space (A/AC.105/C.2/L.224);

(b) Report by the Secretariat on the review of the concept of the "launching State" (A/AC.105/768).

13. The Working Group noted that several States could be jointly and severally liable for damage resulting from an overall space activity, notwithstanding their respective limited participation in that space activity.

14. The Working Group recommended, following common practice, that States consider the conclusion of agreements in accordance with article V, paragraph 2, of the Liability Convention for each stage of a mission with respect to joint launches or cooperation programmes.

15. The Working Group noted proposals for entering into such agreements in cases, among others, in which one State participated in the launch only by making its territory or facility available. In those cases, the Working Group noted that States providing launch services sometimes concluded agreements limiting their liability for damage caused by a space object, as between the launching States, to the point at which the payload was placed successfully into the proper orbit.

16. The Working Group noted that national space laws had elements in common and that, in some cases, governments and non-governmental entities were adopting similar practices under the Liability Convention and the Registration Convention.

17. The Working Group noted that it was common for several States to be involved in a single launch. Those States might consider themselves at risk of being liable as "launching States", including "States procuring the launch". Therefore, the third-party liability insurance requirements of several States might be imposed on any particular stage of the launch, with the highest requirements prevailing.

18. The Working Group recommended the consideration of harmonizing voluntary practices that would provide useful guidance in a practical context to national bodies implementing the United Nations treaties on outer space. Agreements or informal practices to streamline the separate space licensing procedures of various States involved in a launch might reduce insurance costs and regulatory burdens for private industry and regulatory costs for governments. For instance, it might be valuable to consider ways of reducing the number of countries that set duplicate third-party insurance requirements for a particular launch or launch stage. States could also consider voluntary harmonized practices regarding on-orbit transfer of ownership of spacecraft. In general, such practices would increase the consistency and predictability of national space laws and help avoid lacunae in the implementation of the treaties. The Working Group noted that voluntary harmonized practices could be considered on a bilateral or

multilateral basis, or on a global basis through the United Nations.

19. The Working Group noted that not all space objects launched into outer space had been registered in the United Nations Register of Objects Launched into Outer Space.

20. The Working Group encouraged States parties to the Registration Convention and intergovernmental organizations that had declared their acceptance of the rights and obligations provided for in that Convention to implement the Convention in a manner that would best assist the identification of space objects, ensure the United Nations Register of Objects Launched into Outer Space was as complete as possible, and avoid duplicate registrations.

21. The Working Group encouraged States parties to the Liability Convention and intergovernmental organizations that had declared their acceptance of the rights and obligations provided for in that Convention to implement the Convention in a manner that would best ensure the prompt payment under the terms of the Convention of a full and equitable measure of compensation to victims of damage caused by space objects.
