



United Nations

**Report of the Committee
on the Peaceful Uses of
Outer Space**

General Assembly

Official Records

Sixtieth session

Supplement No. 20 (A/60/20)

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Report of the Committee on the Peaceful Uses of Outer Space



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Note

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Chapter I

Introduction

1. The Committee on the Peaceful Uses of Outer Space held its forty-eighth session in Vienna from 8 to 17 June 2005. The officers of the Committee were as follows:

<i>Chairman:</i>	Adigun Ade Abiodun (Nigeria)
<i>First Vice-Chairman:</i>	Ciro Arévalo Yepes (Colombia)
<i>Second Vice-Chairman/Rapporteur:</i>	Parviz Tarikhi (Islamic Republic of Iran)

The unedited verbatim transcripts of the meetings of the Committee are contained in documents COPUOS/T.534-549.

A. Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-second session in Vienna from 21 February to 4 March 2005, under the chairmanship of Dumitru-Dorin Prunariu (Romania). The report of the Subcommittee was before the Committee (A/AC.105/848).

3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its forty-fourth session in Vienna from 4 to 15 April 2005, under the chairmanship of Sergio Marchisio (Italy). The report of the Subcommittee was before the Committee (A/AC.105/850). The unedited verbatim transcripts of the meetings of the Subcommittee are contained in documents COPUOS/Legal/T.711-730.

B. Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:
1. Opening of the session.
 2. Adoption of the agenda.
 3. Statement by the Chairman.
 4. General exchange of views.
 5. Ways and means of maintaining outer space for peaceful purposes.
 6. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
 7. Report of the Scientific and Technical Subcommittee on its forty-second session.
 8. Report of the Legal Subcommittee on its forty-fourth session.
 9. Spin-off benefits of space technology: review of current status.

10. Space and society.
11. Space and water.
12. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2006-2007.
13. Other matters.
14. Report of the Committee to the General Assembly.

C. Membership

5. In accordance with General Assembly resolutions 1472 A (XIV) of 12 December 1959, 1721 E (XVI) of 20 December 1961, 3182 (XXVIII) of 18 December 1973, 32/196 B of 20 December 1977, 35/16 of 3 November 1980, 49/33 of 9 December 1994, 56/51 of 10 December 2001, 57/116 of 11 December 2002 and 59/116 of 10 December 2004 and decision 45/315 of 11 December 1990, the Committee on the Peaceful Uses of Outer Space was composed of the following 67 States: Albania, Algeria, Argentina, Australia, Austria, Belgium, Benin, Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Lebanon, Libyan Arab Jamahiriya, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Syrian Arab Republic, Thailand, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

D. Attendance

6. Representatives of the following 55 States members of the Committee attended the session: Algeria, 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, Kazakhstan, Kenya, Libyan Arab Jamahiriya, Malaysia, Mexico, Morocco, Netherlands, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Slovakia, South Africa, Spain, Sweden, Syrian Arab Republic, Thailand, Turkey, Ukraine, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

7. At its 534th and 536th meetings, the Committee decided to invite, at their request, representatives of Angola, Azerbaijan, Bolivia, Finland, the Holy See, Paraguay, Switzerland, Tunisia, Yemen and Zimbabwe to attend its forty-eighth session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

8. Representatives of the Economic Commission for Africa, the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the International Atomic Energy Agency (IAEA) attended the session.
9. The session was also attended by representatives of the European Association for the International Space Year (EURISY), the European Space Agency (ESA), the European Space Policy Institute (ESPI), the International Astronautical Federation (IAF), the International Mobile Satellite Organization (IMSO), the Space Generation Advisory Council and the Spaceweek International Association.
10. A list of representatives of States members of the Committee, States not members of the Committee, United Nations entities and other organizations attending the session is contained in document A/AC.105/XLVIII/INF/1.

E. General statements

11. The Committee welcomed the Libyan Arab Jamahiriya and Thailand as new members and noted their active participation in the Committee and its subcommittees during their first year of membership.
12. The Committee expressed its gratitude to Takemi Chiku for her exceptional service in the Office for Outer Space Affairs of the Secretariat.
13. The Committee expressed its condolences to the Government of Australia and to the family of John Carver, former Chairman of the Scientific and Technical Subcommittee, who passed away on 25 December 2004. The Committee also expressed its condolences to the Government of France and to the family of Hubert Curien, former Minister of Research, President of the Academy of Sciences of France and founder of EURISY, who passed away on 6 February 2005.
14. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Austria, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Ecuador, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Malaysia, Nigeria, Pakistan, Poland, Portugal, Republic of Korea, Romania, Russian Federation, South Africa, Syrian Arab Republic, Thailand, United States and Viet Nam. Statements were also made by the representatives of UNESCO, ESPI, EURISY and IAF.
15. At the 534th meeting, on 8 June, the Chairman made a statement outlining the work of the Committee at its current session. While commending the Committee for contributing to the achievement of the goals enshrined in the United Nations Millennium Declaration (General Assembly resolution 55/2), the Chairman encouraged delegates to continue to promote international cooperation in identifying new areas for the application of space technologies for sustainable development. The Chairman reminded delegates that their work in the fields of tele-health, education and the strengthening of decision-making in the management of natural resources, such as water, and the mitigation of natural disasters demonstrated the commitment of the Committee.
16. Also at the 534th meeting, the President of the fifty-ninth session of the General Assembly, Jean Ping (Gabon), made a statement to the Committee.

17. At the same meeting, the observer for Bolivia made a statement on behalf of the States Members of the United Nations that are members of the Group of Latin American and Caribbean States.

18. At the 536th meeting, on 9 June, the Director of the Office for Outer Space Affairs made a statement in which he reviewed the work carried out by the Office during the previous year. The Committee expressed its appreciation to the Director for the services provided and work conducted by the Office in the previous year.

19. Also at the 536th meeting, Karl Doetsch (Canada), Chairman of the Scientific and Technical Subcommittee from its thirty-eighth to fortieth sessions, gave a special presentation on the scientific and technical aspects of the work of the Committee and the way ahead. The Committee welcomed his lecture and expressed its appreciation to Mr. Doetsch for his valuable contribution to the work of the Committee and its Scientific and Technical Subcommittee.

F. Adoption of the report of the Committee

20. After considering the various items before it, the Committee, at its 549th meeting, on 17 June 2005, adopted its report to the General Assembly containing the recommendations and decisions set out below.

Chapter II

Recommendations and decisions

A. Ways and means of maintaining outer space for peaceful purposes

21. In accordance with paragraph 35 of General Assembly resolution 59/116, the Committee continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes.

22. The Committee noted with satisfaction the agreement of the Assembly that, during its consideration of the matter, the Committee could consider ways to promote regional and interregional cooperation based on experiences stemming from the Space Conference of the Americas and the role space technology could play in the implementation of recommendations emerging from the World Summit on Sustainable Development.¹

23. With regard to the implementation of the recommendations of the World Summit on Sustainable Development, the Committee noted that, based on the input provided by member States of the Committee and entities of the United Nations system, the Office for Outer Space Affairs had continued to update the list of space-related initiatives and programmes that corresponded to recommendations contained in the Plan of Implementation of the World Summit on Sustainable Development.² The Committee agreed that the Office should continue to update the list, which is available on the website of the Office (www.uncosa.unvienna.org/wssd/wssd.doc).

24. The representatives of China, India and the United States made statements under this item. The representative of Ukraine made a statement under this item on

behalf of the GUUAM Group, excluding Uzbekistan (Azerbaijan, Georgia, the Republic of Moldova and Ukraine).

25. Some delegations expressed the view that the introduction of weapons into outer space would undermine the concept of the peaceful uses of outer space, as well as the basis for, and the very logic of, the development of non-proliferation mechanisms.

26. The view was expressed that the matter of maintaining outer space for peaceful purposes had not been receiving the attention it required in the deliberations of the Committee.

27. Some delegations expressed the view that, in order to prevent an arms race in outer space more effectively, the Committee should establish a practical mechanism for coordinating its work with that of other relevant bodies, such as the Conference on Disarmament. The view was expressed that the Committee could contribute to the work of the Conference on Disarmament on such legal matters as the definition and delimitation of outer space and the definition of space objects.

28. The view was expressed that it was important to establish links between the space-related work of the First and Fourth Committees of the General Assembly.

29. Some delegations expressed the view that the consideration of all issues affecting the peaceful uses of outer space, including militarization, was within the purview of the Committee. Some delegations further expressed the view that consideration of the prevention of an arms race in outer space by the First Committee of the General Assembly and the Conference on Disarmament should not prevent the Committee on the Peaceful Uses of Outer Space from also considering related issues.

30. The view was expressed that the Committee had been created exclusively to promote international cooperation in the peaceful uses of outer space and that disarmament aspects of outer space were more appropriately dealt with in other forums, such as the First Committee of the General Assembly and the Conference on Disarmament.

31. Some delegations were of the view that the development of a comprehensive United Nations convention on space law could meet the legal challenges presented by modern space activities and ensure that outer space was maintained exclusively for peaceful purposes.

32. The view was expressed that the best way to maintain outer space for peaceful purposes was to further strengthen international cooperation in the field in order to enhance the safety and security of the space assets of all countries.

33. The view was expressed that involving more countries, in particular developing countries, in international cooperation in space might enhance the use of outer space for peaceful purposes.

34. The view was expressed that, in order to further the objective of promoting the peaceful uses of outer space, the limited resources of outer space, such as geostationary orbital positions, should be shared equitably among countries.

35. The view was expressed that regional and interregional cooperation was pivotal to maintaining outer space for peaceful purposes.

36. The Committee recommended that, at its forty-ninth session, in 2006, it should continue its consideration, on a priority basis, of the item on ways and means of maintaining outer space for peaceful purposes.

B. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space

37. In accordance with General Assembly resolution 59/2 of 20 October 2004, the Committee considered the item on the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).³

38. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee at its forty-second session had convened the Working Group of the Whole to consider the implementation of the recommendations of UNISPACE III. The Chairman of the Working Group of the Whole was Muhammad Nasim Shah (Pakistan).

39. The representatives of Argentina, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Cuba, the Czech Republic, Ecuador, France, Greece, India, Iran (Islamic Republic of), Italy, Japan, Mexico, Nigeria, Romania, the Russian Federation, Spain, Thailand, the United Kingdom and the United States made statements under the item. The observer for the Spaceweek International Association also made a statement.

40. The Committee had before it, for its consideration, the following documents:

(a) Note by the Secretary-General on review of the implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (A/59/174);

(b) Information on the high-level plenary meeting to be held from 14 to 16 September 2005 during the sixtieth session of the General Assembly (A/AC.105/2005/CRP.9);

(c) Establishing a closer link with the work of the Commission on Sustainable Development (A/AC.105/2005/CRP.11);

(d) Implementing the actions called for in the Plan of Action of the Committee on the implementation of the recommendations of UNISPACE III: strategy proposed by the Office for Outer Space Affairs (A/AC.105/2005/CRP.12 and A/AC.105/2005/CRP.17);

(e) Ad hoc expert group on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management (A/AC.105/2005/CRP.13);

(f) High-level plenary meeting of the General Assembly, 14-16 September 2005: input to the report of the President of the General Assembly (A/AC.105/2005/CRP.15 and Rev.1);

(g) Possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management: progress report of the ad hoc expert group (A/AC.105/2005/CRP.20).

41. The Committee expressed its appreciation to Niklas Hedman (Sweden), the Chairman of the working group of the Committee that had prepared the report of the Committee to the General Assembly.

42. The Committee emphasized the importance of implementing the Plan of Action contained in the report (A/59/174, paras. 228-316) and endorsed by the General Assembly in its resolution 59/2.

43. The Committee noted that the recommendations of UNISPACE III continued to be implemented by Member States through national, regional and international efforts and through the work of some of the action teams established by the Committee to that end. The Committee agreed that the establishment of the action teams had created a unique and useful mechanism to ensure the implementation of a large number of recommendations, while preserving the pivotal role of Member States.

44. The Committee noted with satisfaction that the Action Team on an Environmental Monitoring Strategy had met during the forty-eighth session of the Committee and that some members of the Action Team on Sustainable Development had also participated in that meeting. The Committee was informed about the progress made by the Action Team.

45. The Committee noted with appreciation that excellent progress had been made during the preparatory meetings to establish an international committee on global navigation satellite systems (GNSS) in accordance with paragraph 11 of General Assembly resolution 59/2. It also noted that the Office for Outer Space Affairs would be organizing a meeting in December 2005 to complete the process of establishing the international committee on GNSS.

46. The view was expressed that the work of the action teams should be followed by the definition and implementation of action plans, containing specific goals, means and tasks.

47. The view was expressed that, in addition to arranging meetings during sessions of the Committee and its subcommittees, the possibility should be explored of also organizing action team meetings in connection with other activities of the Office for Outer Space Affairs, such as its workshops, in order to increase opportunities for the members of the action teams to discuss the implementation of the recommendations of UNISPACE III.

48. The Committee considered the contribution that could be made to the high-level plenary meeting of the General Assembly at its sixtieth session, which would be held from 14 to 16 September 2005 to undertake a comprehensive review of the progress made in the fulfilment of all the commitments contained in the United Nations Millennium Declaration. On the advice of the Group of Fifteen, the Committee considered the draft outcome document of 3 June 2005 of the President of the General Assembly and noted that the document lacked a reference to the benefits of space science and technology in addressing relevant global issues. The Committee reached consensus on a text to be transmitted to the President of the

General Assembly by member States of the Committee for incorporation into the draft outcome document (see A/AC.105/2005/CRP.15/Rev.1).

49. The Committee agreed that, in order to establish a closer link between its work relating to the implementation of the recommendations of UNISPACE III and the work being carried out by the Commission on Sustainable Development, the Director of the Division for Sustainable Development of the Department of Economic and Social Affairs of the Secretariat should be invited to participate in the sessions of the Committee to inform it how it could best contribute to the work of the Commission.

50. The Committee agreed that the Director of the Office for Outer Space Affairs should attend the sessions of the Commission on Sustainable Development with a view to raising awareness and promoting the benefits of space science and technology, in particular in the areas being addressed by the Commission.

51. To enable the Committee to contribute to the policy year of the thematic areas of the Commission for the period 2006-2007, the Committee agreed that member States should be requested to provide inputs for the development of a concise document. The Committee agreed that the Scientific and Technical Subcommittee should, at its forty-third session, review and finalize that document and, on behalf of the Committee, transmit it to the Commission. The Committee agreed that the Action Team on Sustainable Development should be requested to support the Subcommittee actively in that work.

52. The Committee agreed that, in order to make a regular contribution to each year of the work of the Commission, member States should be requested to provide input for the Committee's contribution one year before the Commission addressed the thematic areas. The Committee agreed that input should be provided in advance of the annual sessions of the Scientific and Technical Subcommittee to enable the latter to conduct the first review and the Committee, later in the same year, to finalize the contribution.

53. The Committee agreed that, at its forty-third session, in 2006, the Scientific and Technical Subcommittee, in addition to reviewing and finalizing the Committee's contribution to the work of the Commission in 2006, should also review the first draft of the Committee's contribution to the work of the Commission in 2007.

54. In paragraph 9 of its resolution 59/2, the General Assembly requested the Committee to review at its forty-eighth session progress made in the work of the ad hoc expert group that was conducting a study on the possibility of creating an international entity to provide for coordination and the means of realistically optimizing the effectiveness of space-based services for use in disaster management.

55. The representative of Romania, on behalf of the ad hoc expert group, presented to the Committee a progress report on the work carried out by the group.

56. The Committee took note with satisfaction of the progress report and expressed its appreciation for the excellent work carried out by the ad hoc expert group.

57. The Committee requested the ad hoc expert group to finalize the draft study, taking into consideration the comments provided by representatives of member

States of the Committee and the objectives and work carried out by intergovernmental and non-governmental organizations with planned or ongoing activities in the use of space technology for disaster management. The Committee agreed that, once completed, the draft study should be distributed to all member States of the Committee by the Office for Outer Space Affairs for their review.

58. The Committee further agreed that the study could be considered informally in connection with the Working Group of the Whole of the Fourth Committee of the General Assembly when it considered the item on international cooperation in the peaceful uses of outer space. The study, including the comments received, would then be submitted to the Scientific and Technical Subcommittee at its forty-third session, in 2006, for its review and recommendation to the Committee.

59. Some delegations expressed the view that the coordination mechanism being proposed to support the use of space technology for risk reduction and disaster management should be implemented as a mandate within the United Nations system and that the existing structures and facilities of the United Nations should be taken into account in the development of such a mechanism.

60. The view was expressed that no new entity needed to be established as the coordination mechanism should be entrusted to the United Nations Organization Satellite (UNOSAT) service, which was coordinated by the United Nations Institute for Training and Research and implemented by the United Nations Office for Project Services.

61. The view was expressed that, in considering the creation of an international entity to coordinate space-based services for use in disaster management, the Committee could consider extending the scope of responsibility of the Office for Outer Space Affairs to include such a coordinating function.

62. The Committee noted with appreciation that, pursuant to paragraph 15 of General Assembly resolution 59/2, the Office for Outer Space Affairs had presented its strategy for incorporating into its programme of work the actions identified for implementation by the Office in the Plan of Action of the Committee (A/AC.105/2005/CRP.12, to be issued subsequently as A/AC.105/L.262).

63. The Committee also noted with satisfaction that the Office had considered the broader goals of the Plan of Action with a view to providing support, where possible and appropriate, for other actions in that Plan that would be implemented by the Committee, Member States and intergovernmental and non-governmental organizations.

64. The Committee welcomed the fact that the Office could integrate, within its existing resources, many of the actions contained in the Plan of Action of the Committee.

65. The Committee noted that, with a nominal increase in its regular budget and extrabudgetary resources, the Office could incorporate other actions into its programme of work. The Committee also noted that some actions could only be incorporated if adequate additional resources were made available to the Office for their implementation.

66. The Committee noted that, in order to accommodate new actions in its programme of work, while maintaining the priority thematic areas agreed by the

Committee, the Office would need to adjust its operational priorities. To enhance the capacity of the Office to provide technical and legal advisory services and initiate pilot projects, the Office would need to increase its extrabudgetary funding sources.

67. The Committee recalled that the regional centres for space science and technology education, affiliated to the United Nations, were located in Africa (Morocco and Nigeria), Asia and the Pacific (India) and Latin America and the Caribbean (Brazil and Mexico). It noted that the centres were well placed to provide necessary capacity-building, but would require support to enable them to do so.

68. The Committee agreed that the Office would promote cooperation with and support for the centres among Member States at the regional and international levels. The Committee agreed that the Office would also launch a support campaign for the centres among space-related institutions and relevant companies.

69. The Committee also expressed the importance of coordinating activities between the regional centres and relevant actors devoted to promoting the peaceful use and exploration of outer space. As regards the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean, the Committee underscored the importance of the coordination between the Centre and the pro tempore secretariat of the Space Conference of the Americas.

70. The Committee agreed that the regional centres should continue to report to the Committee on their activities on an annual basis.

71. Some delegations were of the view that the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean should consider the possibility of expanding the membership of its Governing Board.

72. The Committee noted that the General Assembly, in its resolution 59/2, had requested the Committee to include in the agendas of its future sessions, starting from its forty-ninth session, in 2006, consideration of its contribution to the work of those entities which were responsible for convening United Nations conferences and/or for implementing their outcomes.

73. The Committee agreed to include in the agenda of its forty-ninth session an item concerning the recommendations of the World Summit on the Information Society with a view to contributing to their implementation and to consider at that session whether to retain the item on the agenda beyond 2006. It also agreed that the International Telecommunication Union (ITU) should be invited to brief the Committee on the recommendations of the World Summit and their implementation.

74. In accordance with paragraph 14 of General Assembly resolution 59/2, the Committee considered the activities of the United Nations Programme on Space Applications and agreed that the Programme should continue to focus on thematic areas identified by the Expert on Space Applications in her briefing to the Committee, as reflected in paragraph 88 of the present report. The Committee agreed that, in order to contribute to the work being conducted by the Commission on Sustainable Development, the Programme should include water among its thematic priority areas, to the extent feasible.

75. The Committee noted that the Scientific and Technical Subcommittee had endorsed the agreement of the Working Group of the Whole that it should focus its discussion on the implementation of three actions called for in the Plan of Action:

maximizing the benefits of existing space capabilities for disaster management and maximizing the benefits of the use and applications of GNSS to support sustainable development (A/59/174, paras. 252-269); and enhancing capacity-building in space-related activities (A/59/174, paras. 299-310).

76. The view was expressed that efforts to involve private industry in contributing to the implementation of the recommendations of UNISPACE III should be pursued. That delegation was of the view that the development of clear project proposals would attract private industry to participate actively in the initiatives of the Committee.

77. The Committee noted that the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (International Charter "Space and Major Disasters") was a specific initiative that supported disaster assessment and relief activities. It also noted that the Charter had been activated 19 times over the past year and that support had been provided.

78. The Committee agreed that the Charter deserved to receive the full support of the United Nations, Member States and other organizations that were in a position to contribute to its goals.

79. The Committee noted with appreciation the report on the promotion and organization of public outreach activities in celebration of World Space Week.

80. The Committee noted that the report on the international celebration of World Space Week in 2004, prepared by the Spaceweek International Association in cooperation with the Office for Outer Space Affairs, had been made available in a special publication (ST/SPACE/27).

81. The Committee noted with appreciation the reports by Member States on the promotion and organization of public outreach activities in celebration of World Space Week.

C. Report of the Scientific and Technical Subcommittee on its forty-second session

82. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its forty-second session (A/AC.105/848), which contained the results of its deliberations on the items assigned to it by the General Assembly in its resolution 59/116, and thanked Mr. Prunariu for his able leadership as Chairman of the Scientific and Technical Subcommittee.

83. At the 538th meeting of the Committee, on 10 June, the Chairman of the Scientific and Technical Subcommittee made a statement on the work of the Subcommittee at its forty-second session.

84. The representatives of Australia, Canada, Chile, China, the Czech Republic, France, India, Malaysia, Nigeria, the Republic of Korea, Thailand and the United States made statements under this item.

85. The Committee heard the following presentations under this agenda item:

(a) “Chinese meteorology satellites and their applications”, by Lu Naimeng (China);

(b) “Tsunami disasters along the Andaman Sea, Thailand: using geo-informatics technology”, by Somkiati Ariyapruchya and Supapis Pol-Ngam (Thailand).

86. The Committee welcomed the special presentations made before the Subcommittee on various topics and noted that such presentations provided complementary technical content for the deliberations of the Subcommittee, timely and useful information on new programmes and developments in the space community and illustrative examples of space technology.

1. United Nations Programme on Space Applications

(a) Activities of the United Nations Programme on Space Applications

87. At the commencement of the deliberations on this item, the Expert on Space Applications briefed the Committee on the overall strategy for the implementation of the United Nations Programme on Space Applications. The strategy would concentrate on several priority thematic areas with specific topics addressing sustainable development for developing countries and establish objectives that could be reached in the short and medium term.

88. The Committee noted that the priority thematic areas of the Programme were: (a) use of space technology for disaster management; (b) satellite communications for tele-education and telemedicine applications; (c) monitoring and protection of the environment; (d) management of natural resources; and (e) education and capacity-building, including research areas in basic space sciences and space law.

89. The Committee took note of the activities of the Programme carried out in 2004, as set out in the report of the Scientific and Technical Subcommittee (A/AC.105/848, paras. 37-40). The Committee expressed its appreciation to the Office for Outer Space Affairs for the manner in which the activities of the Programme had been implemented with the limited funds available. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored the activities. The Committee noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2005, as set out in the report of the Subcommittee (A/AC.105/848, paras. 41 and 42).

90. The Committee noted with satisfaction that the Programme was helping developing countries and countries with economies in transition to participate in and benefit from the space activities contained in the various recommendations of UNISPACE III.

91. The Committee once again expressed its concern that the financial resources available to the United Nations Programme on Space Applications remained limited and appealed to the donor community to support the Programme through voluntary contributions. The Committee held the view that the limited resources available to the United Nations should be focused on activities of the highest priority; it noted that the United Nations Programme on Space Applications was the priority activity of the Office for Outer Space Affairs.

(i) United Nations conferences, training courses and workshops

92. The Committee expressed its appreciation to Algeria, Australia, Sweden and the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean for co-sponsoring and hosting United Nations activities held between January and June 2005 (A/AC.105/848, paras. 41 and 42 (a) and (b)).

93. The Committee endorsed the workshops, training courses, symposiums and conferences planned for the remaining part of 2005, and expressed its appreciation to Austria, Argentina, China, Colombia, Japan, Nigeria, Switzerland, the United Arab Emirates, the United States, ESA, the Economic and Social Commission for Asia and the Pacific, UNESCO and IAF for co-sponsoring, hosting and supporting those activities (A/AC.105/848, para. 42 (c)-(l)).

94. The Committee endorsed the programme of workshops, training courses, symposiums and conferences planned to be held in 2006 for the benefit of developing countries, as follows:

- (a) Two workshops on the use of space technology for disaster management;
- (b) Two workshops on the application of space technology to environmental monitoring and natural resource management;
- (c) One training course on satellite-aided search and rescue;
- (d) One workshop on integrated space technology applications, with tele-health and landscape epidemiology using GNSS technologies;
- (e) One workshop on basic space science, focusing on the preparations for the International Heliophysical Year 2007;
- (f) One United Nations/IAF workshop on space education and tele-health, to be held in Valencia, Spain;
- (g) One workshop on space law;
- (h) Training courses to be organized at the regional centres for space science and technology education, affiliated to the United Nations.

95. The Committee noted with appreciation that, since its forty-seventh session, additional resources for 2005 had been offered by various Member States and organizations.

96. The Committee noted with appreciation that the host countries of the regional centres for space science and technology education were providing significant financial and in-kind support to the centres.

(ii) Long-term fellowships for in-depth training

97. The Committee expressed its appreciation to the Government of Italy, which, through the Politecnico di Torino and the Istituto Superiore Mario Boella and with the collaboration of the Istituto Elettrotecnico Nazionale Galileo Ferraris, had offered five 12-month fellowships in 2004 for postgraduate studies in GNSS and related applications at the Politecnico di Torino in Turin, Italy.

98. The Committee noted that it was important to increase opportunities for in-depth education in all areas of space science, technology and applications

through long-term fellowships and urged Member States to make such opportunities available at their relevant institutions.

(iii) *Technical advisory services*

99. The Committee noted with appreciation that the United Nations Programme on Space Applications had supported, collaborated with and provided assistance and technical advisory services to various Member States and intergovernmental and non-governmental organizations in support of activities and projects promoting regional and global cooperation in space applications (A/AC.105/848, para. 40).

(b) International Space Information Service

100. The Committee noted with satisfaction that the publications entitled *Seminars of the United Nations Programme on Space Applications*⁴ and *Highlights in Space 2004*⁵ had been issued.

101. The Committee noted with satisfaction that the Secretariat had continued to enhance the International Space Information Service and the website of the Office for Outer Space Affairs (www.unoosa.org). The Committee also noted with satisfaction that the Secretariat was maintaining a website on the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org).

(c) Regional and interregional cooperation

102. The Committee recalled that the General Assembly, in its resolution 50/27 of 6 December 1995, had endorsed the recommendation of the Committee that the regional centres on space science and technology education be established on the basis of affiliation with the United Nations as early as possible and that such affiliation would provide the centres with the necessary recognition and would strengthen the possibilities of attracting donors and of establishing academic relationships with national and international space-related institutions.

103. The Committee noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize cooperation with Member States at the regional and international levels aimed at supporting the centres. The Committee noted that all the regional centres had entered into an affiliation agreement with the Office for Outer Space Affairs.

104. The Committee also noted that the highlights of the activities of the regional centres supported under the Programme in 2004 and planned activities for 2005 and 2006 were included in the report of the Expert on Space Applications (A/AC.105/840, annex III).

105. The Committee noted with satisfaction that the Centre for Space Science and Technology Education in Asia and the Pacific, which had been established in India in 1995, was celebrating its tenth anniversary in 2005. The Centre had pioneered the United Nations initiative of creating educational centres in developing countries. The Committee further noted that the Government of India had continuously provided strong support to the Centre over the past decade, including making the appropriate facilities and expertise available to it through the Indian Space Research Organisation and the Department of Space. The Committee noted that, to date, the Centre had conducted 21 long-term postgraduate courses and 16 short-term

programmes in the core disciplines, benefiting 46 countries and more than 600 scholars in the region of Asia and Pacific and beyond. Since 1999, the Centre had achieved the status of an institution of excellence.

106. The Committee noted that the campuses in Brazil and Mexico of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean had been established in 1997. The campus in Brazil benefited from the facilities made available to it by the National Institute for Space Research (INPE). Similar high-quality facilities were available on the campus in Mexico, which was supported by the National Institute of Astronomy, Optics and Electronics. The Brazil campus had already conducted two postgraduate courses, benefiting 25 scholars from 10 countries in the region, and four short-term programmes in remote sensing and geographical information systems (GIS). The Mexico campus was planning to offer its first postgraduate programme in 2005.

107. The Committee noted that the African Regional Centre for Space Science and Technology—in French Language had been established in Morocco in 1998. Based in Rabat, the Centre was actively supported by important national institutions such as the Royal Centre for Remote Sensing, the Scientific Institute, the Hassan II Institute of Agronomy and Veterinary Medicine, the National Institute of Telecommunications and the National Directorate of Meteorology. The Committee noted that the Centre had already carried out 6 long-term postgraduate courses, benefiting more than 80 scholars from 16 countries in the region, and 10 short-term programmes. In 2005, the Centre would also host two workshops sponsored by the United States and ESA. Both events would focus on natural resource management and environment monitoring.

108. The Committee noted that the African Regional Centre for Space Science and Technology Education—in English Language had been inaugurated in Nigeria in 1998. It operated under the auspices of the National Space Research and Development Agency of Nigeria and was located at the Obafemi Awolowo University in Ile-Ife. The Centre's facilities were provided mainly by departments of the University and the Regional Centre for Training in Aerospace Surveys, which was also located on the campus of the University. The Centre had already offered six postgraduate courses and eight short-term programmes. About 30 scholars from nine countries in the region had attended the long-term courses.

109. The Committee noted with satisfaction that, as noted by the General Assembly in its resolution 59/116, the Government of Ecuador had announced its intention to organize the Fifth Space Conference of the Americas, which would be held in Quito in July 2006. The Committee further noted that the Government of Chile would organize a preparatory meeting for the Conference during the International Air and Space Fair to be held in Santiago in March 2006. The Committee also noted the offer of the Government of Colombia to extend its support to the two events.

110. The Committee noted that Colombia, in its capacity as pro tempore secretariat of the Fourth Space Conference of the Americas, had, in accordance with paragraph 21 of General Assembly resolution 59/116, presented a report on the work accomplished. (The report, which had been circulated as a conference room paper (A/AC.105/2005/CRP.7), would be made available as document A/AC.105/L.261 following the forty-eighth session of the Committee.) In that regard, some delegations expressed their appreciation for the efficient work carried out by

Colombia in its capacity as pro tempore secretariat of the Fourth Space Conference of the Americas, which had been held in Cartagena de Indias, Colombia, in 2002, and for the activities of Colombia related to the implementation of the Cartagena Declaration and its Plan of Action.

111. The Committee noted with satisfaction that the Programme on Space Applications was supporting UNESCO in its space education outreach activities.

112. The Committee noted that, beginning in 2006, the Programme was planning to provide greater support for pilot projects of national or regional significance in developing countries. The Programme currently supported the following activities, which would assist in defining models for future projects:

(a) Distributing Landsat data donated by the United States to African institutions initially and to the other regions at a later stage;

(b) Continuing to build upon the potential application and involvement of the Office in the International Charter “Space and Major Disasters”;

(c) Joining the International Society for Telemedicine and eHealth as a partner and continuing to encourage activities and projects related to tele-health and public health preventative tele-education;

(d) Co-sponsoring a telemedicine project with India and the United States for the benefit of Afghanistan;

(e) Jointly conducting with Colombia, and with the support of ITU, the development of a geostationary orbit occupancy analyser tool;

(f) Co-sponsoring follow-up projects with Austria, Switzerland and ESA on remote sensing in the service of sustainable development in mountain areas;

(g) Co-sponsoring projects on disaster management in South-East Asia with the Korea Aerospace Research Institute of the Republic of Korea.

113. The Committee further noted that the Programme welcomed co-sponsors for future projects that benefited developing countries.

(d) International Satellite System for Search and Rescue

114. The Committee recalled that, at its forty-fourth session, it had agreed that a report on the activities of the International Satellite System for Search and Rescue (COSPAS-SARSAT) should be considered annually by the Committee as part of its consideration of the United Nations Programme on Space Applications and that member States should report on their activities regarding COSPAS-SARSAT.⁶

115. The Committee noted with satisfaction that COSPAS-SARSAT, a cooperative venture initiated in the late 1970s involving Canada, France, the Russian Federation and the United States, was using space technology to assist aviators and mariners in distress around the globe. Since 1982, COSPAS-SARSAT had introduced analogue and digital emergency beacons worldwide. COSPAS-SARSAT had expanded its space segment to include ad hoc payloads on geostationary and low-Earth orbit satellites that currently provided alert signals.

116. The Committee noted with satisfaction that COSPAS-SARSAT currently had 37 member States and that its members were from every continent. Those States had

helped to deploy a robust ground network and alert data distribution system. In 2004, COSPAS-SARSAT helped save 1,465 lives in 441 distress incidents or accidents. Since 1982, COSPAS-SARSAT had assisted in the rescue of over 18,000 persons in more than 5,000 distress incidents or accidents.

117. The Committee noted with satisfaction that the United Nations/Australia Training Course on Satellite-Aided Search and Rescue had been held in Canberra, A.C.T., from 14 to 18 March 2005.

2. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

118. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had continued its consideration of matters relating to remote sensing of the Earth by satellite. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 74-84).

119. The Committee stressed the importance of remote sensing technology for sustainable development and emphasized, in that connection, the importance of providing non-discriminatory access to state-of-the-art remote sensing data and to derived information at a reasonable cost and in a timely manner.

120. The Committee noted that technological progress and applications in the area of Earth observation satellites were significant for developing countries because of their potential to promote sustainable development.

121. The Committee underlined the importance of building capacity in the adoption and use of remote sensing technology, in particular to meet the needs of developing countries.

122. The Committee also highlighted the importance of international cooperation among member States in the use of remote sensing satellites, in particular by sharing experience and technologies.

3. Space debris

123. In accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had continued its consideration of the agenda item on space debris, in accordance with the *workplan* adopted at its thirty-eighth session (A/AC.105/761, para. 130). The Committee took note of the discussion of the Subcommittee on space debris, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 85-107).

124. The Committee noted with satisfaction that the Subcommittee, at its forty-second session, in accordance with General Assembly resolution 59/116, had reconvened a working group to consider, as necessary, the proposals of the Inter-Agency Space Debris Coordination Committee (IADC) on space debris mitigation and any related comments that might be received.

125. The Committee agreed with the Subcommittee that consideration of space debris was important, that international cooperation was needed to develop more appropriate and affordable strategies to minimize the potential impact of space debris on future space missions and that, pursuant to General Assembly

resolution 59/116, Member States, in particular spacefaring countries, should pay more attention to the problem of the collision of space objects, including those with nuclear power sources on board, with space debris and to other aspects of space debris, as well as its re-entry into the atmosphere (A/AC.105/848, para. 90).

126. The Committee noted with satisfaction that the Working Group on Space Debris had agreed to develop a document on space debris mitigation, which, among other considerations, would use, as a basis, the technical content of the IADC space debris mitigation guidelines (A/AC.105/C.1/L.260), would not be more technically stringent than the IADC space debris mitigation guidelines, would not be legally binding under international law and would take into consideration the United Nations treaties and principles on outer space. The Committee also noted the agreement of the Working Group that the Subcommittee would continue to consider the agenda item on space debris in accordance with a new multi-year *workplan*, covering the period from 2005 to 2007 (A/AC.105/848, annex II, para. 6).

127. The view was expressed that, while the voluntary guidelines being formulated by the Subcommittee would represent a significant advance, those guidelines would not cover all debris-producing situations and would accordingly need to be kept under consideration.

128. The view was expressed that the IADC space debris mitigation guidelines could be endorsed by the Subcommittee as the technical background to the document on space debris mitigation being developed in the framework of the Working Group on Space Debris.

129. The view was expressed that the IADC space debris mitigation guidelines were solid, technically based measures for any nation to adopt and implement in its national space activities.

130. The Committee noted that the United States had endorsed the IADC space debris mitigation guidelines and that its domestic agencies were implementing debris mitigation practices consistent with them. The Committee also noted that China and Malaysia were using the space debris mitigation guidelines as their reference in developing a national regulatory and licensing framework.

131. Some delegations were of the view that the future use of outer space depended on keeping space debris to manageable levels and that space debris in outer space was a prime threat to the unimpeded operation of functional satellites and therefore to the continued access of the global community to the benefits of space.

132. The view was expressed that, in resolving the problem of space debris, special emphasis should be placed on the promotion of international cooperation, including the transfer of relevant technology to non-spacefaring countries, with a view to expanding appropriate and systematic strategies to minimize their impact upon future space missions.

133. The view was expressed that awareness of the potential of debris to render space unusable had tempered but not halted the consideration of space-based weapons. That delegation reiterated its call for the negotiation of a multilateral agreement banning all space-based weapons.

134. At the 544th and 547th meetings, on 15 and 16 June, the Chairman of the Working Group on Space Debris, Claudio Portelli (Italy), reported on the work of

the intersessional meeting held by the Working Group during the forty-eighth session of the Committee in accordance with the agreement reached by the Subcommittee at its forty-second session.

135. The Committee noted that, during its intersessional meeting, the Working Group had considered the proposals submitted by France, Germany, India, Japan, the United Kingdom, the United States and ESA for a document on space debris mitigation to be developed by the Working Group in accordance with its new multi-year workplan (see A/AC.105/2005/CRP.8 and Corr.1 and Add.1). The Working Group also considered a proposal from Canada.

136. The Committee noted that during its intersessional meeting the Working Group had begun its work on drafting a document on space debris mitigation, based on the proposals submitted. It also noted that the preliminary draft of that document (see A/AC.105/2005/CRP.18) would be reviewed by the Working Group at the forty-third session of the Subcommittee in accordance with the multi-year workplan.

4. Use of nuclear power sources in outer space

137. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had continued its consideration of the item relating to the use of nuclear power sources in outer space. The Committee took note of the discussion of the Subcommittee on the use of nuclear power sources in outer space, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 108-125).

138. The Committee noted with satisfaction that the Subcommittee had reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space during the forty-second session of the Subcommittee under the acting chairmanship of Alice Caponiti (United States). The Committee also noted with satisfaction that the Working Group had made significant progress and had carried out successful and detailed work in identifying and developing potential implementation options for establishing an international technically based framework of goals and recommendations for the safety of planned and currently foreseeable space nuclear power source applications.

139. The Committee noted with satisfaction that the multi-year workplan, adopted at the fortieth session of the Scientific and Technical Subcommittee, in 2003, had been amended and extended up to 2007 during the forty-second session of the Subcommittee in order to allow for the organization and holding of a joint, technical workshop with IAEA on the objective, scope and general attributes of a potential technical safety standard for nuclear power sources in outer space, to be held during the forty-third session of the Subcommittee, in February 2006.

140. The view was expressed that the workshop would assist in determining the way to further proceed in the efforts already undertaken with a view to developing an international framework for the safe use of nuclear power sources in outer space and that the intersessional meeting of the Working Group being held during the forty-eighth session of the Committee would lay the essential groundwork for the organization of the workshop.

141. The view was expressed that the testing, deployment and use of space weapons would create an environment where such weapons would become a threat and target

to global security and that States possessing nuclear weapons as well as ballistic missiles could explode a nuclear weapon in space that could cause uncontrolled damage to satellites.

142. The view was expressed that nuclear power sources should not be used in outer space, especially in near-Earth orbits. If nuclear power sources are ever used in outer space, their use should be limited to deep space missions where other power sources could not be applied.

143. The view was expressed that the Committee should cooperate in a most effective way with IAEA concerning the use of nuclear power sources, taking into account their different working methods. That delegation was of the view that, in order to facilitate the selection of the implementation option concerning future cooperation between IAEA and the Committee, the first option, which included close cooperation and work between those two bodies, would be the most appropriate, taking into account their respective competences and procedures.

144. The view was expressed that the issue regarding the use of nuclear power sources in outer space was a timely and topical one in view of the serious problems that could be caused to the environment and that it was important for the Committee and its Legal Subcommittee to discuss the matter. That delegation expressed concern about the meetings of the Working Group being held in parallel with the plenary sessions of the Committee, as developing countries could not support the presence of more than one or two delegates to participate in simultaneous meetings.

145. The view was expressed that the use of nuclear power sources in outer space should be diminished and focused on the use of space for civil applications, thus contributing to human security, prosperity and development, in particular in the fields of health, protection of the environment and disaster mitigation on Earth.

146. At the 543rd meeting, on 14 June, the Chairman of the Working Group on the Use of Nuclear Power Sources in Outer Space, Sam Harbison (United Kingdom), reported on the progress made by the Working Group during the intersessional meetings. At the 545th meeting, on 15 June, the Acting Chairperson, Alice Caponiti, reported on the results of the intersessional meetings of the Working Group at the current session of the Committee.

147. The Committee noted with satisfaction that, as a result of the work conducted by the Working Group, a preliminary list of potential objectives and topics and an indicative schedule of work for the above-mentioned workshop had been finalized. The Committee endorsed the preliminary list of potential objectives and topics and an indicative schedule of work for the workshop (A/AC.105/L.260).

148. The Committee agreed that the Working Group should continue its intersessional work, by electronic means, in close cooperation with IAEA and the Office for Outer Space Affairs, with a view to finalizing the organizational and logistical aspects and, as necessary, adjusting the indicative schedule of work for the workshop, which is scheduled to be held during the forty-third session of the Scientific and Technical Subcommittee.

5. Space-system-based telemedicine

149. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had considered an

item on space-system-based telemedicine under the three-year workplan adopted by the Subcommittee at its fortieth session. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 126-138).

150. The Committee noted the contribution of telemedicine to improving public health, especially in rural areas, as well as to meeting goal 6 of the Millennium Development Goals, calling for combating HIV/AIDS, malaria and other diseases. The Committee further noted that some States were making full use of space capabilities to improve their public health services, while others were initiating pilot projects in telemedicine. The Committee noted with appreciation the strong interest of the international community in sharing and learning from the work currently being done in telemedicine. The Committee also noted the existing concern regarding legal and regulatory barriers relating to the application of telemedicine, the high cost of the relevant biomedical equipment and software and the call to provide more opportunities for developing countries to enable them to derive maximum benefits from space-system-based telemedicine.

6. Near-Earth objects

151. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had considered an item on near-Earth objects under the three-year workplan adopted by the Subcommittee at its forty-first session. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 139-153).

7. Space-system-based disaster management support

152. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had considered the agenda item on space-system-based disaster management support in accordance with the three-year workplan adopted at its forty-first session (A/AC.105/823, annex II, para. 18). The Committee took note of the discussion of the Subcommittee under that agenda item, as contained in the report of the Subcommittee (A/AC.105/840, paras. 154-173).

153. The Committee conveyed its condolences to the States that had suffered from the impact of the tsunami in the Indian Ocean in December 2004 and its aftermath.

154. The Committee also conveyed its condolences to the Government and people of Chile in connection with the major earthquake that had shaken the north of their country on 14 June 2005.

155. The Committee noted that the tragic earthquake and tsunami disaster that had afflicted countries in the area of the Indian Ocean on 26 December 2004 and had resulted in the loss of approximately 230,000 lives had highlighted the importance and need for a bigger and more efficient role for space technology in the prediction, monitoring and mitigation of natural disasters.

156. The Committee noted that remote sensing imagery and satellite-based communications, including telemedicine services, were used in the disaster relief operations following the tsunami in the area of the Indian Ocean.

157. The Committee noted that the Association of Southeast Asian Nations leaders' meeting on the aftermath of the tsunami disaster, held in Jakarta on 6 January 2005, had adopted a declaration on action to strengthen emergency relief, rehabilitation, reconstruction and prevention in the aftermath of the earthquake and tsunami disaster. Among other things, the declaration stated the commitment of the leaders and participants to the establishment of a regional early warning system.

158. The Committee noted with satisfaction the opening on 30 May 2005 of the National Disaster Warning Centre of Thailand. The Committee further noted with satisfaction that a tsunami detection outpost, linked by satellite transmission receivers, had been established in the context of the new Centre.

159. The Committee also noted with satisfaction that several States and organizations had effectively used space technology in actively providing assistance for disaster forecasting, monitoring and assessment.

160. The view was expressed that, while space technology had already proved its contribution to the overall mitigation of the effects of natural disasters, mechanisms for better warning, monitoring and prediction should be improved and rendered more efficient. This would ensure a better preparedness for responding to major natural disasters.

161. The view was expressed that, in considering the creation of an international entity to coordinate space-based services for use in disaster management, the Committee could consider extending the scope of responsibility of the Office for Outer Space Affairs to include such a coordinating entity. That delegation was of the view that, as a United Nations entity, the Office had the qualifications to undertake such a function and that that approach, with a small increase in resources, would be more cost-effective than setting up a new entity.

162. The view was expressed that the proposal to establish such a coordination entity was the first concrete action to be taken by the Scientific and Technical Subcommittee on the recommendation of UNISPACE III. That delegation was of the view that such an entity should be institutionalized to assume responsibility for coordinating and implementing an integrated operational space-based system to manage and mitigate natural disasters globally.

163. The view was expressed that the proposed international space coordination entity for disaster management would fill the gaps in the coordination of space-based services for the management of natural disasters and would complement the International Charter "Space and Major Disasters" for the phases of prevention and rehabilitation. That delegation was of the view that it would be counterproductive to create a new organization in a sector with numerous international operators and that it would be preferable to set up the entity within the United Nations system or as part of an existing international organization.

8. Examination of the physical nature and technical attributes of the geostationary orbit and of its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries

164. In accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee considered the agenda item on the geostationary orbit and space communications as a single issue/item for discussion. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 174-180).

165. Some delegations reiterated the view that the geostationary orbit was a scarce natural resource, which ran the risk of becoming saturated. Those delegations considered that the exploitation of the geostationary orbit should be rationalized and made available to all countries, in particular to developing countries, thus giving them the opportunity to have access to the geostationary orbit under equitable conditions. The needs and interests of developing countries, the geographical position of certain countries and the process followed by ITU should also be taken into account.

166. Some delegations referred to the consensus reached by the Subcommittee at its forty-fourth session, in 2001,⁷ and by the Scientific and Technical Subcommittee at its thirty-ninth session, in 2002 (A/AC.105/786, para. 132), on the following statement: "The geostationary orbit, characterized by its special properties, is part of outer space." Therefore, in the view of those delegations, the geostationary orbit should be governed by a special regime.

167. The Committee noted with interest that the Subcommittee, at its forty-second session, in 2005, had heard a presentation made by the representative of Colombia on behalf of the pro tempore secretariat of the Fourth Space Conference of the Americas, entitled "Geostationary orbit analyser tool", illustrating the non-homogeneous use of the orbit-spectrum resources, which increased the saturation risk for some regions.

9. Support to proclaim the year 2007 International Geophysical and Heliophysical Year

168. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had considered an agenda item on support to proclaim the year 2007 International Geophysical and Heliophysical Year as a single issue/item for discussion. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/848, paras. 181-192).

169. The Committee noted that International Heliophysical Year 2007 would be an international endeavour, with States from every region of the world planning to host instrument arrays, provide scientific investigators or offer supporting space missions. The Committee further noted that International Heliophysical Year 2007 would serve to focus worldwide attention on the importance of international cooperation in research activities in the field of solar-terrestrial physics.

10. Draft provisional agenda for the forty-third session of the Scientific and Technical Subcommittee

170. The Committee noted that, in accordance with General Assembly resolution 59/116, the Scientific and Technical Subcommittee had considered proposals for a draft provisional agenda for its forty-third session. The Subcommittee had endorsed the recommendations of its Working Group of the Whole concerning the draft provisional agenda for the forty-third session of the Subcommittee (A/AC.105/848, paras. 193-195 and annex I).

171. The Committee recalled its recommendation, made at its forty-seventh session, to continue the practice of alternating each year the organization of the symposium by the Committee on Space Research (COSPAR) and IAF and the symposium to strengthen partnership with industry. The Committee endorsed the agreement of the Subcommittee that in 2006 the industry symposium would be held and the symposium organized by COSPAR and IAF would be suspended (A/AC.105/848, annex I, para. 24).

172. The Committee endorsed the recommendation that the symposium should address synthetic aperture radar missions and their applications. The Committee also endorsed the agreement of the Subcommittee that the symposium should be held on the afternoon of the first day of the forty-third session and that the full time available to the Subcommittee on that afternoon should be used for the symposium (A/AC.105/848, annex I, para. 25).

173. The Committee endorsed the recommendation that the Subcommittee should continue to consider the item on space debris in accordance with the new multi-year workplan agreed upon by the Subcommittee (A/AC.105/848, para. 194, annex I, para. 18, and annex II, para. 6).

174. The Committee endorsed the recommendation that the Subcommittee should continue to consider the item on the use of nuclear power sources in outer space in accordance with the three-year workplan as amended and agreed upon by the Subcommittee (A/AC.105/848, para. 194, annex I, para. 19, and annex III, para. 8).

175. The Committee endorsed the recommendation of the Subcommittee to amend the workplan of the agenda item on near-Earth objects for the years 2006 and 2007 (A/AC.105/848, para. 194, and annex I, para. 20).

176. The Committee endorsed the recommendation of the Subcommittee to amend the workplan of the agenda item on space-system-based disaster management support for the year 2006 (A/AC.105/848, para. 194, and annex I, para. 21).

177. The Committee endorsed the recommendation that the Subcommittee, in 2006, should begin consideration of a new agenda item on International Heliophysical Year 2007 in accordance with the multi-year workplan agreed upon by the Subcommittee (A/AC.105/848, annex I, para. 22).

178. On the basis of the deliberations of the Scientific and Technical Subcommittee at its forty-second session, the Committee agreed on the following draft provisional agenda for the forty-third session of the Subcommittee:

1. General exchange of views and introduction to reports submitted on national activities.
2. United Nations Programme on Space Applications.
3. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
5. Items to be considered under workplans:
 - (a) Space debris;
(Work for 2006 as reflected in the multi-year workplan contained in document A/AC.105/848, annex II, para. 6)
 - (b) Use of nuclear power sources in outer space;
(Work for 2006 as reflected in document A/AC.105/848, annex III, para. 8)
 - (c) Space-system-based telemedicine;
(Work for 2006 as reflected in the multi-year workplan contained in document A/58/20, para. 138)
 - (d) Near-Earth objects;
(Work for 2006 as reflected in document A/AC.105/848, annex I, para. 20)
 - (e) Space-system-based disaster management support;
(Work for 2006 as reflected in document A/AC.105/848, annex I, para. 21)
 - (f) International Heliophysical Year 2007.
(Work for 2006 as reflected in document A/AC.105/848, annex I, para. 22)
6. Single issue/item for discussion. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including, inter alia, in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries.
7. Draft provisional agenda for the forty-fourth session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.
8. Report to the Committee on the Peaceful Uses of Outer Space.

D. Report of the Legal Subcommittee on its forty-fourth session

179. The Committee took note with appreciation of the report of the Legal Subcommittee on its forty-fourth session (A/AC.105/850), which contained the results of its deliberations on the items assigned to it by the General Assembly in resolution 59/116, and thanked Mr. Marchisio for his able leadership as Chairman of the Legal Subcommittee.

180. At the 540th meeting of the Committee, on 13 June, the Chairman of the Legal Subcommittee made a statement on the work of the Subcommittee at its forty-fourth session.

181. The representatives of Belgium, Brazil, Chile, China, Colombia, the Czech Republic, France, Greece, India, Italy, Malaysia, Nigeria, the Republic of Korea and the United States made statements under this item.

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

182. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered the status and application of the five United Nations treaties on outer space as a regular item. The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 24-38).

183. The Committee noted that the Subcommittee had reconvened its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, of which the chairman would be elected at a later date. The Committee further noted that the Subcommittee had subsequently agreed to suspend the Working Group and to reconvene it at the forty-fifth session of the Subcommittee, in 2006, and to review at that session the need to extend its mandate beyond that session.

184. The Committee welcomed the information provided by some delegations on the current status of the five United Nations treaties on outer space in their respective States and on the further action that those States intended to take in order to accede to or ratify those treaties. The Committee also noted with satisfaction the reports on the progress made by member States in developing their national space law.

185. The Committee expressed its appreciation to the Office for Outer Space Affairs for the excellent informational material provided on national space legislation and international treaties, as well as for the informative website concerning the work of the Committee and its subcommittees.

186. The Committee agreed that member States should regularly provide the Office for Outer Space Affairs with information on their national space legislation and policy in order for the Office to maintain an up-to-date database on that subject.

187. Some delegations expressed the view that the United Nations treaties on outer space had established a comprehensive legal framework that encouraged the exploration of outer space and supported increasingly complex activities in outer space by both government and private entities, with benefits to both spacefaring and non-spacefaring nations. Those delegations advocated further adherence to the outer space treaties.

188. Other delegations expressed the view that, owing to developments in space activities, such as the commercialization of space and the involvement of the private sector, there was a need to consider a new, comprehensive convention on outer space law to further strengthen the international legal regime covering outer space activities. Those delegations were of the view that a single, comprehensive convention could regulate all aspects of outer space activities.

189. The view was expressed that entertaining the possibility of negotiating a new, comprehensive space law instrument could only serve to undermine the principles of the existing space law regime.

190. The view was expressed that, as the United Nations treaties on outer space had evolved through consensus and enjoyed acceptance by a large number of States, consideration by the Subcommittee of the status and application of those treaties was significant and would encourage adherence to the treaties by States that had not yet become parties to them.

191. The view was expressed that, although the current international legal framework was based on agreements reached by consensus, there was a need for an overhaul of the treaties on outer space in order to remain relevant and current with the developments taking place on the international agenda.

192. The view was expressed that an overhaul of the treaties on outer space was not necessary, but that a review involving modifications to the treaties was necessary. That delegation was of the view that a balance needed to be reflected in the treaties between public international law and the realities of private law in current space activities.

193. Some delegations expressed the view that the working paper submitted by a number of States entitled "Questionnaire on possible options for future development of international space law", to be discussed by the Working Group on the agenda item at the forty-fifth session of the Legal Subcommittee, was of particular interest and could assist the Subcommittee in reaching constructive conclusions about the future orientation of its work.

194. The view was expressed that the mandate of the Working Group on the agenda item should be extended beyond the forty-fifth session of the Legal Subcommittee, as such action would be favourable to encouraging further adherence to the treaties on outer space.

195. The Committee noted with appreciation that a workshop on space law hosted by the Government of Brazil and the Associação Brasileira de Direito Aeronáutico e Espacial had been held in Rio de Janeiro, Brazil, from 22 to 25 November 2004. The Committee welcomed the announcement that the next workshop on space law would be hosted by the Government of Nigeria in November 2005.

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

196. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered information on the activities of international organizations relating to space law as a regular item. The Committee took note of the discussion of the Subcommittee under that item, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 39-53).

197. The Committee noted with satisfaction that the Legal Subcommittee had been provided with reports from various international organizations on their activities relating to space law and agreed that international organizations should again be invited by the Secretariat to provide reports to the Subcommittee at its forty-fifth session, in 2006.

198. The Committee noted the decision of the World Commission on the Ethics of Scientific Knowledge and Technology of UNESCO not to draw up a declaration of ethical principles, but rather to emphasize and promote awareness of moral and ethical issues raised by space activities in the framework of reinforced international cooperation. The decision had been adopted by the Commission at its fourth ordinary session, held in Bangkok in March 2005, and would be submitted to the General Assembly of UNESCO for its consideration in late 2005.

199. The Committee also noted that in 2004 a conference on the ethical and legal framework for astronaut activities on the International Space Station had been held in Paris and that a conference on the legal and ethical framework for the exploration of the solar system, organized jointly by UNESCO and the European Centre for Space Law, was planned for 2006.

200. The view was expressed that close interaction between space law and space ethics should be maintained and that close cooperation between UNESCO and the Committee, in particular its Legal Subcommittee, should be promoted.

3. 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

201. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had continued to consider as a regular item 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 ITU. The Committee took note of the discussion of the Subcommittee under that item, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 54-70).

202. The Committee noted that the Working Group on this item had been re-established under the chairmanship of José Monserrat Filho (Brazil) to consider only matters relating to the definition and delimitation of outer space, in accordance with the agreement reached by the Legal Subcommittee at its thirty-ninth session and endorsed by the Committee at its forty-third session.

203. The Committee endorsed the recommendations of the Working Group as contained in paragraphs 5 (a)-(c) and (e) of its report (A/AC.105/850, annex I) and approved by the Subcommittee (A/AC.105/850, para. 68).

204. The Committee agreed that the Scientific and Technical Subcommittee should be invited to consider the possibility of preparing a report on the technical characteristics of aerospace objects in the light of the current level of technological advancement and possible developments in the foreseeable future.

205. Some delegations expressed the view that the geostationary orbit was a limited natural resource with sui generis characteristics that risked saturation and that equitable access to it should therefore be guaranteed for all States, taking into account in particular the needs of developing countries and the geographical position of certain countries.

206. Some delegations expressed the view that the exploitation of the geostationary orbit, which was a limited natural resource, should, in addition to being rational, be made available to all countries, irrespective of their current technical capacities, thereby providing them with the possibility of having access to the orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries, as well as the geographical position of certain countries, with the support of ITU.

207. Some delegations expressed their satisfaction with the agreement reached by the Subcommittee at its thirty-ninth session (see A/AC.105/738, annex III) to the effect that coordination among countries aimed at the utilization of the geostationary orbit should be carried out in an equitable manner and in conformity with the ITU Radio Regulations.

208. The view was expressed that, in order for the agreement of the Legal Subcommittee at its thirty-ninth session to be implemented, the participation of and effective implementation by ITU would be necessary. For that purpose, the relationship between ITU and the Committee should become closer and be organized in such a manner that agreements reached by the Committee could be carried out effectively.

209. The view was expressed that, despite the difficulties in reaching consensus on the question of the definition and delimitation of outer space, member States should continue consultations on the item with a view to maintaining peace and security in outer space and promoting its peaceful use.

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

210. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had continued its consideration of the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space as a single issue/item for discussion.

211. The Committee noted that an exchange of views had taken place in the Legal Subcommittee on the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 71-81), in which reference was made to the work currently being undertaken by the Scientific and Technical Subcommittee under the item entitled "Use of nuclear power sources in outer space".

5. Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment, opened for signature at Cape Town, South Africa, on 16 November 2001

212. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered a single issue/item for

discussion entitled “Examination of the preliminary draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment, opened for signature at Cape Town, South Africa, on 16 November 2001”. The Committee took note of the discussion of the Subcommittee under that item, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 82-117).

213. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered two sub-items under that agenda item:

(a) Considerations relating to the possibility of the United Nations serving as supervisory authority under the future protocol;

(b) Considerations relating to the relationship between the terms of the future protocol and the rights and obligations of States under the legal regime applicable to outer space.

214. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had reconvened its Working Group on the item, under the chairmanship of Vladimír Kopal (Czech Republic).

215. The Committee noted with appreciation the exceptional efforts of Mr. Kopal, as Chairman of the Working Group, and of René Lefeber (Netherlands), who had acted as coordinator of the intersessional consultations on the possibility of the United Nations serving as supervisory authority under the future protocol and prepared the draft report, in dealing with such complex issues.

216. The Committee noted that the Legal Subcommittee had considered the question of the appropriateness of the United Nations serving as the supervisory authority under the future protocol and that consensus regarding that critical question could not be reached.

217. The Committee noted that the third session of the International Institute for the Unification of Private Law (Unidroit) committee of governmental experts for the consideration of the preliminary draft protocol would be held in Rome later in 2005 and that member States of the Committee would be invited to attend.

218. Some delegations expressed the view that acceptance by the United Nations or any of its offices of the role of supervisory authority under the future protocol was inappropriate and in conflict with the fundamental mandate of the United Nations.

219. The view was expressed that the future protocol itself was not technically and logically tenable for the aims and purpose proposed.

220. Some delegations expressed the view that there were no legal barriers to the United Nations serving as supervisory authority under the future protocol.

221. Some delegations expressed the view that, with regard to the relationship between the future protocol and the legal regime on outer space, the principles of public international law contained in the outer space treaties should prevail.

222. The view was expressed that a thorough analysis needed to be undertaken of the compatibility between the private law and the public international law implications of the future protocol, paying careful attention to the possible contradictions and conflicts that might arise in practice. That delegation expressed the view that the international responsibility of States needed to be clearly defined

when non-governmental entities of those States were engaged in commercial activities in space, as well as the relationship between the rights and obligations of States whose national entities were engaged as creditors.

223. The view was expressed that the level of interest in the draft space assets protocol was indicative of the importance attached to the formulation of a legal instrument able to facilitate the private financing of space activities to the benefit of commercial, as well as public, space applications.

224. Some delegations expressed the view that it would be a great loss if the opportunity to contribute to the development of a new legal instrument, and thus to prove the usefulness of the Subcommittee in the progressive development of space law, was not pursued. Those delegations were of the view that it was an important opportunity to facilitate the expansion of the commercial space sector, as well as for a broad range of States to benefit from such expansion. Those delegations supported the continued inclusion of the item, with its reformulated title, on the agenda of the Subcommittee for its forty-fifth session, in 2006.

225. The view was expressed that the working paper submitted by 10 States, including a draft resolution for consideration and adoption by the General Assembly on the assumption by the United Nations of the function of supervisory authority under the future protocol (A/AC.105/C.2/L.258), was ready for further consideration by the Legal Subcommittee, the Committee and eventually the Assembly.

226. The view was expressed that it was premature to discuss the submission of a draft resolution to the General Assembly and that the Legal Subcommittee had agreed to take up the item with a modified title at its forty-fifth session. That delegation was of the view that the Subcommittee should be kept abreast of all developments in relation to the future protocol.

227. The view was expressed that a precondition to the United Nations assuming the functions of supervisory authority would be that the Organization should not be responsible for any cost associated with exercising those functions and that it should enjoy immunity from liability for damages.

228. The view was expressed that those delegations which had objected to the United Nations serving as supervisory authority under the future protocol had not offered a detailed analysis of viable options. That delegation expressed the view that it would expect those delegations to present other options in detail at the third session of the Unidroit committee of governmental experts for the consideration of the preliminary draft protocol in Rome later in 2005.

229. The view was expressed that the functions of the supervisory authority should be entrusted to an existing international organization such as ITU or to an international ad hoc entity set up by the States parties to the Convention and the future protocol.

6. Practice of States and international organizations in registering space objects

230. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered the practice of States and international organizations in registering space objects in accordance with the workplan adopted by the Committee at its forty-sixth session. The Committee took

note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/850, paras. 118-131).

231. The Committee noted that the Subcommittee had established, in accordance with the workplan, a new working group on the item under the chairmanship of Niklas Hedman (Sweden).

232. The Committee noted that the background paper prepared by the Secretariat, entitled "Practice of States and international organizations in registering space objects" (A/AC.105/C.2/L.255 and Corr.1 and 2), had made a valuable contribution to the work under the item of the Working Group on the Practice of States in Registering Space Objects.

233. The Committee agreed that consideration of the item had provided an important opportunity for the Legal Subcommittee to exchange useful information on States' practices and laws and to enhance the application of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution 3235 (XXIX), annex), through the establishment of harmonized common practices in registering space objects.

234. The Committee noted that some Member States, while not party to the Registration Convention, had set up a national register or provided information on a voluntary basis in accordance with General Assembly resolution 1721 B (XVI).

235. The Committee agreed that, in 2006, the Working Group could, on the basis of the background paper prepared by the Secretariat and the discussions held at the forty-fourth session of the Subcommittee, focus on the following:

- (a) Harmonization of practices (administrative and practical);
- (b) Non-registration of space objects;
- (c) Practice with regard to transfer of ownership of space objects in orbit;
- (d) Practice with regard to registration/non-registration of foreign space objects.

236. The Committee endorsed the recommendations of the Working Group as contained in paragraphs 12-15 of its report (A/AC.105/850, annex III) and approved by the Subcommittee (A/AC.105/850, para. 130).

237. The view was expressed that, at the last session of the Legal Subcommittee, the Working Group had not been afforded sufficient time to consider the item properly. That delegation was of the view that the secretariat should assess how best to maximize the usage of time by the Subcommittee, including giving consideration to the possibility of Working Group meetings in parallel to the plenary meetings of the Subcommittee.

7. Draft provisional agenda for the forty-fifth session of the Legal Subcommittee

238. The Committee noted that, in accordance with General Assembly resolution 59/116, the Legal Subcommittee had considered an item entitled "Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its forty-fifth session".

239. The Committee noted that an exchange of views had taken place in the Legal Subcommittee on numerous proposals by member States for new agenda items and that agreement had been reached on a proposal to the Committee for the agenda of the forty-fifth session of the Subcommittee, in 2006, as reflected in its report (A/AC.105/850, paras. 132-149).

240. The Committee endorsed the agreement of the Subcommittee to review at its forty-fifth session the need to extend the mandate of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space beyond that session of the Subcommittee.

241. Some delegations stressed the importance of including new items on the agenda of the Subcommittee to support the continuous development of international space law.

242. The view was expressed that the Subcommittee and the Committee should demonstrate a greater political will in order to include additional items that were essential for the progressive development of space law.

243. Some delegations expressed the view that a flexible approach by the Subcommittee was necessary when considering the inclusion of new items on its agenda, taking into particular account the needs of developing countries.

244. On the basis of the deliberations of the Legal Subcommittee at its forty-fourth session, the Committee agreed on the following draft provisional agenda for the forty-fifth session of the Subcommittee, in 2006:

Regular items

1. General exchange of views.
2. Status and application of the five United Nations treaties on outer space.
3. Information on the activities of international organizations relating to space law.
4. 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

5. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.
6. Examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment.

Items considered under workplans

7. Practice of States and international organizations in registering space objects.

(2006: Identification by the Working Group on the Practice of States in Registering Space Objects of common practices and drafting of recommendations for enhancing adherence to the Convention on Registration of Objects Launched into Outer Space)

New item

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

E. Spin-off benefits of space technology: review of current status

245. In accordance with paragraph 37 of General Assembly resolution 59/116, the Committee resumed its consideration of the item entitled “Spin-off benefits of space technology: review of current status”.

246. The representatives of Canada, Greece, Japan and the United States made statements under this item.

247. The Committee heard a presentation entitled “Spin-off of JAXA’s intellectual properties”, by Hitoshi Yoshino (Japan).

248. The publication *Spinoff 2004*, submitted by the National Aeronautics and Space Administration (NASA) of the United States, was made available to the Committee.

249. The Committee agreed that spin-offs of space technology should be promoted because they energized industries and made significant contributions to improving the quality of life of human populations.

250. The Committee noted that spin-offs of space technology were being used to reduce organic waste and to facilitate nursing care for the elderly.

251. In the field of medical research, the Committee took note of a new contact lens that was capable of non-surgically reshaping the cornea during sleep. Upon removal of the contact lens, users experienced clear, natural vision without the need for daytime contact lenses or glasses.

252. In the field of consumer health, the Committee noted that tagatose, a natural alternative to table sugar and artificial sweeteners, was providing a safe sweetener for diabetics without causing dental cavities or tooth decay. The sweetener was being evaluated for incorporation into non-food items, such as toothpaste, mouthwash, throat lozenges and cough medicine.

253. In the field of health and medicine, the Committee noted that a filter made of nanoaluminium oxide fibres could be used to remove impurities from drinking water in areas on Earth where water was scarce and potentially contaminated.

254. Also in the field of health, the Committee noted that high-speed, interactive, satellite-based telecommunications were providing patients living in rural areas and in communities located far from urban centres with access to first-class health services.

255. In the field of environmental protection, the Committee noted that a fibre-optic sensor system was being used to evaluate fatigue on marine pipelines and risers and on offshore drilling and oil production rigs. Working in conjunction with risk management software, the sensor system was reducing the risk of potential environmental contamination from hydrocarbon spillage.

256. The Committee noted that remote sensing technology was being used, among other things, to create improved models for the prediction of future ozone levels, to improve understanding of pollution in industrial centres, to contribute to precision farming and to identify ships engaged in illegally dumping oil in the sea.

257. The view was expressed that a small group of experts should be established to prepare a document containing proposals on means of assisting the United Nations Programme on Space Applications in disseminating information on the spin-off benefits of space technology, in particular with a view to making such information available to developing countries.

258. The Committee recommended that it continue its consideration of the item at its forty-ninth session, in 2006.

F. Space and society

259. In accordance with paragraph 38 of General Assembly resolution 59/116, the Committee continued to consider the agenda item entitled "Space and society". The Committee recalled that, in accordance with the workplan adopted by the Committee and approved by the Assembly, the special theme for the focus of discussions for the period 2004-2006 should be "Space and education".⁸ In accordance with the workplan, the Committee held discussions and presentations on the topic of "Space tools for education".

260. The delegations of Belgium, Canada, Chile, China, Colombia, Cuba, France, India, Japan, Nigeria, Ukraine and the United States made statements under this item.

261. The Committee heard the following presentations:

(a) Scientific youth association "GAREF Aérospatial", by Alexandre Khun (France);

(b) "DLR 'school labs': how to enhance interest in space sciences", by Richard Bräucker (Germany);

(c) "Ten years of the Centre for Space Science and Technology Education in Asia and the Pacific", by V. Sundararamaiah (India);

(d) "Activities of the Japan Aerospace Exploration Agency (JAXA) Space Education Center", by Takemi Chiku (Japan);

(e) “Space and the United Nations Decade of Education for Sustainable Development (2005-2014)”, by Yolanda Berenguer (UNESCO);

(f) “Keo space time capsule: project of the twenty-first century”, by Jean-Marc Philippe (Keo project).

262. The Committee noted that, since its previous session, the United Nations programme on Space Applications, in cooperation with UNESCO, had distributed, through the UNESCO outreach programme, educational materials on basic space science and technology applications acquired from NASA and had held a series of space education workshops in Nigeria from 23 to 27 May 2005, which had been co-organized with the National Space Research and Development Agency of Nigeria.

263. The Committee noted that the Space Education Programme of UNESCO aimed at enhancing space subjects and disciplines in schools and universities, in particular in developing countries, and raising awareness among the general public of the benefits of space technology for social, economic and cultural development. The Committee noted that UNESCO was the lead United Nations agency for the United Nations Decade of Education for Sustainable Development (2005-2014).

264. The Committee noted that a number of national tele-education initiatives were providing educators and students at all levels, including those in remote areas, with high-quality education consisting of the latest teaching resources, vocational and teacher training and adult education in fields such as women’s empowerment, family planning and skills for local artisans.

265. The Committee noted the efforts of China, Cuba and India in utilizing communication satellites to bring education programmes to rural areas.

266. The Committee noted with satisfaction that, at the global level, a large number of educational and outreach activities and programmes for children, young people and the general public were being established by space agencies and international organizations to promote awareness of the benefits of space science and technology and to encourage children to consider careers in the fields of mathematics and science.

267. The Committee noted that there were a number of national educational initiatives and activities aimed at using content, materials and applications unique to space activities for training students and teachers and for educating the general public on matters relating to outer space, including the NASA Educator Astronaut Programme, Explorer Schools Programme, Explorer Institutes and the Science and Technology Scholarship Programme; the JAXA Space Education Center; the German Aerospace Center “School Lab”; the National Centre of Aerospace Education of Ukrainian Youth and the Ukrainian International Centre for Space Law; the Instituto de Altos Estudios Espaciales Mario Gulich in Argentina; and youth space activities implemented by the National Centre for Space Studies (CNES) of France.

268. The Committee noted that World Space Week, observed each year from 4 to 10 October pursuant to General Assembly resolution 54/68 of 6 December 1999, contributed to the development of education and raised awareness about outer space, in particular among young people and the general public. The Committee noted that over 40 countries had participated in World Space Week in 2004 and that the theme and focus of the activities for 2005 was “Discovery and imagination”.

269. The Committee was of the view that sharing scientific and technical knowledge and achievements in the field of space activities would have a positive impact on future generations.

270. The Committee noted several national initiatives that had established and were operating telemedicine networks in rural areas offering services relating to dermatology, emergency medical care and tropical diseases and using remote diagnostics. The Committee further noted that remote sensing technology was being used to track Rift Valley fever, dengue fever and other infectious diseases.

271. The view was expressed that, if the discussions under the item resulted in a consensus to develop further activities in the area of space and education, such activities should be undertaken within the broader context of the World Summit on the Information Society, in which importance had been accorded to communication networks and services, including satellite-based communications.

272. The view was expressed that illiteracy and a lack of adequate education continued to constitute major problems for developing countries.

273. The view was expressed that the varying levels of development of developing countries in the Asian and Pacific region was a factor limiting the use of tele-education.

274. The view was expressed that States should be encouraged to improve the dissemination of space-related educational materials in order to increase general awareness of the importance of the use of space technology for attaining sustainable development. That delegation noted that education was one of the priority areas identified by the Fourth Space Conference of the Americas, held in Cartagena de Indias, Colombia, in 2002.

275. The Committee noted that the 15th United Nations/International Astronautical Federation workshop, to be held in Kitakyushu, Japan, on 14 and 15 October 2005, would address space education and capacity-building for sustainable development.

G. Space and water

276. In accordance with paragraph 39 of General Assembly resolution 59/116, the Committee continued to consider the agenda item entitled "Space and water".

277. The representatives of Austria, Canada, Chile, Colombia, Cuba, France, Greece, Japan, Nigeria, the United States, the observer for Bolivia and the observer for the Economic Commission for Africa made statements under the item.

278. The Committee heard the following technical presentations under the item:

- (a) "Space and water for life", by Yolanda Berenguer (UNESCO);
- (b) "Japan's activities related to space and water", by Toshihiro Ogawa (Japan);
- (c) "Looking from space on oceans and inland waters", by Andreas Neumann (Germany).

279. The Committee welcomed consideration of the item, as water shortages and floods caused serious problems in developing countries and space applications

could contribute to cost-effective water resource management as well as to prediction and mitigation of water-related emergencies. The Committee noted that, in view of the unequal distribution of water resources, consideration of the item was of particular importance to developing countries.

280. The Committee noted the large-scale problem of access to water and the great loss of human life associated with that problem and that the right of access to water was closely linked to the right to life. It also noted the increase in water pollution and destruction of ecosystems, especially in developing countries, as well as the link between desertification and migration resulting from shortages of water for consumption and economic activities. In that regard, the Committee noted that such shortages represented a source of insecurity.

281. The Committee agreed that scientific data converted into practical information, which was readily available thanks to various space applications, should be used on a wider scale by decision makers and policymakers in managing water resources and in predicting and mitigating water-related emergencies.

282. The Committee noted with satisfaction that water-related issues were gaining more prominence on the international development agendas and welcomed the attention given to the matter by the United Nations, in particular by the High-level Panel on Threats, Challenges and Change. The Committee further noted the relevant recommendations contained in the United Nations Millennium Declaration.

283. The Committee noted that, in order to ensure a greater focus of the international community on water-related issues, the General Assembly, in its resolution 58/217 of 23 December 2003, had proclaimed the period from 2005 to 2015 the International Decade for Action, "Water for Life", to commence on World Water Day, 22 March 2005.

284. The Committee noted that space-based data could contribute to confidence-building among States sharing water resources and that no consideration of economic, social or environmental development was possible without considering the issue of water. It also noted that, in sharing limited water resources and coping with the growing demand for water, it was important to move away from the perception of a "zero-sum game".

285. The Committee noted the new possibilities of obtaining data and information from space-borne platforms and that developments in water science and the use of satellite technology provided a broader view for local water use, water availability and its quality, as well as reduced uncertainty of local assessments and forecasts.

286. The Committee noted the importance of understanding the global water cycle and rainfall in water resource management, food production and natural disaster management. It also noted that the global water cycle was vast and could not be fully understood with only in-situ observation networks. In that regard, the Committee noted that satellite observations offered an alternative means of seeing the entire Earth and were essential for understanding remote and inaccessible places, especially in case of sudden climate change.

287. The Committee noted that satellites could provide information on the state of the oceans and on the potential for floods and droughts or on the high numbers of intense thunderstorms. It further noted that numerous remote sensing satellites had contributed to determining various water management indicators, such as

precipitation, snow cover, soil moisture, changes in underground water storage, flood inundation areas, estimates of evaporation, surface temperature, wind speed, short- and long-wave radiation, vegetation type and health, the impact of land use and climate variability on groundwater recharge, groundwater-related biomass concentrations and digital elevations, as well as river flows and water highs in large rivers and lakes. The Committee also noted the use of telecommunication satellites for gathering data on water quality.

288. The Committee noted the contribution of the Global Earth Observation System of Systems (GEOSS) to the solution of water-related issues, such as the National Integrated Drought Information System (NIDIS) of the United States, which could help predict and monitor droughts.

289. The Committee noted that a number of national initiatives involving space applications for water resource management, including flood management, had been or were being implemented by developing countries. It also noted that a number of international projects involving space applications had been initiated, including on monitoring of monsoon flooding in Malaysia, obtaining up-to-date and accurate resource data, information dissemination and environmental management in the Mekong basin, identification of potential underground sources of potable water in drought-prone regions in Brazil, improvement of water resource management in Burkina Faso and identification of natural mosquito habitats and prediction of malaria risks in Africa, as well as on analysis of the global water cycle and improved accuracy of weather forecasting.

290. The Committee noted with appreciation the presentation on progress in preparing a pilot project that would apply space applications to the restoration of Lake Chad and the management of water resources in the Lake Chad basin. The Committee noted that, with the assistance of the Office for Outer Space Affairs, a partnership was being established among the States of the basin, with the participation of the Lake Chad Basin Commission, to initiate that pilot project.

291. The Committee agreed to invite the representatives of those States which were involved in the pilot project on Lake Chad to report to the Committee at its forty-ninth session on the progress achieved in implementing the project.

292. The Committee noted the important contribution to the pilot project and to the consideration of space and water made by the United Nations/Austria/European Space Agency Symposium on Water for the World: Space Solutions for Water Management, held in Graz, Austria, from 13 to 16 September 2004. The Committee also noted that participants at the symposium had developed a document entitled the "Graz Vision", which summarized the findings and recommendations of the symposium and which had been put into practice in the preparation of the pilot project in the Lake Chad basin. The Committee further noted that in 2005 the United Nations/Austria/ESA symposium would address the topic of "Space systems: protecting and restoring water resources".

293. The Committee noted a number of national and international initiatives that had been undertaken since its forty-seventh session aimed at building capacity in the use of space applications for water management. In that regard, it agreed that the recommendations made by various space- and water-related activities needed follow-up.

294. The Committee noted the transfer to developing countries of space technologies and expertise that could be used for water resource management. It also noted the initiatives aimed at assessing the readiness of North-West African States to receive science and technology capabilities to enhance their water management activities.

295. The Committee appealed to national and international space agencies to share their knowledge and provide assistance to water management institutions and support the capacity-building activities of developing countries to use space applications for water management.

296. The Committee noted plans for future environmental satellites that would collect and disseminate data about the Earth's oceans, atmosphere, land, climate and space environment, thereby providing high-quality and sustained environmental measurements for use in monitoring the global water cycle and related weather phenomena. It further noted the planned initiatives aimed at monitoring variations in water cycles and natural disasters, including torrential rains, typhoons, floods and droughts, as well as weather forecasting.

297. The Committee noted that water resource management was closely linked to forestry and that satellite data on forests constituted an important input to understanding of the water cycle.

298. The Committee noted that, given that such global issues as climate change, monitoring of diseases and human safety increasingly affected day-to-day life, the future role of satellite technology was likely to extend beyond the applications currently known. It also noted that the improved capabilities of future technologies would assist in improving near-real-time information products and render them increasingly user-friendly and more compatible with other data sources.

299. The Committee agreed to continue the consideration of the item at its forty-ninth session, in 2006.

H. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2006-2007

300. In accordance with paragraph 43 of General Assembly resolution 59/116 and pursuant to the measures relating to the working methods of the Committee and its subsidiary bodies as endorsed by the Assembly in its resolution 52/56 of 10 December 1997, the Committee considered the composition of the bureaux of the Committee and its subsidiary bodies for the period 2006-2007.

301. The representatives of Greece, Pakistan and Portugal made statements under this item.

302. The Committee noted the candidatures of Gérard Brachet (France), Előd Both (Hungary) and Paul R. Tiendrebeogo (Burkina Faso) for the offices of Chairman, First Vice-Chairman and Second Vice-Chairman, respectively, of the Committee on the Peaceful Uses of Outer Space for the period 2006-2007.

303. The Committee noted the candidature of Raimundo González Aninat (Chile) for the office of Chairman of the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space for the period 2006-2007.

304. The Committee urged the Group of Asian States to reach consensus on its candidate for Chairman of the Scientific and Technical Subcommittee before the sixtieth session of the General Assembly.

305. The Committee noted that the Group of Western European and other States had endorsed the candidature of Filipe Duarte Santos (Portugal) for the office of Second Vice-Chairman/Rapporteur of the Committee on the Peaceful Uses of Outer Space for the period 2008-2009.

I. Other matters

1. Participation in the work of the Committee

306. The representatives of Austria, Canada, China, Colombia, Cuba, the Czech Republic, France, Greece, Hungary, India, Japan, Nigeria, Poland, South Africa, Thailand, the United States and Venezuela (Bolivarian Republic of) made statements under this item.

307. In accordance with paragraph 45 of General Assembly resolution 59/116, the Committee considered ways to improve participation in its work by member States and entities with observer status, with a view to agreeing at its current session on specific recommendations in that regard.

308. The Committee noted that, in response to its request, the Inter-Agency Meeting on Outer Space Activities, at its twenty-fifth session, held in Vienna from 31 January to 2 February 2005, had considered the matter of enhancing the participation of organizations of the United Nations system in the work of the Committee and its subcommittees. The Meeting had agreed that, while financial and staff resource limitations sometimes prevented some organizations of the United Nations system from being represented at all meetings of the Committee and its subcommittees, those organizations could enhance their participation by preparing written reports, when requested, on matters related to specific agenda items and could submit information and reports on their activities related to the work of the Committee and its subcommittees (see A/AC.105/842).

309. The view was expressed that the United Nations should undertake an examination of its various bodies that influenced activities in outer space, in order to ensure the sharing of information and adequate delineation of their respective responsibilities, so as to avoid major policy lacunae and to make use of all available opportunities to facilitate access by all to the benefits provided by the peaceful use of space. That delegation was of the view that, in that regard, the First and Fourth Committees of the General Assembly should have formal mechanisms to share and cooperate in their space-related mandates and that the Conference on Disarmament, ITU and the Committee on the Peaceful Uses of Outer Space should develop a consultative mechanism, in particular in the area of dual-use space assets.

2. Symposium

310. As agreed during the forty-seventh session of the Committee, a symposium entitled "Space and archaeology" was held on 13 June 2005 to demonstrate the opportunities offered to archaeology by space technology and international cooperation in the peaceful uses of outer space.

311. The following presentations were made during the symposium: “Current and future uses of space technology in archaeology”, by L. Beckel (Austria); “Open initiative on the use of space technologies to support the World Heritage Convention”, by M. Hernández (UNESCO); “Developing ground- and satellite-based methods for investigating archaeological sites in Iraq: the site of Uruk-Warka”, by M. van Ess and G. Schreier (Germany); “Space applications in archaeological exploration and documentation in Syria”, by M. Rukieh (Syrian Arab Republic); “Understanding cultural and natural heritage information using space technology in China”, by H. Guo (China); and “Remote sensing and virtual reconstruction of archaeological landscapes”, by M. Forte (Italy).

312. On 10 June 2005, a presentation entitled “Archaeology from space” by Toshibumi Sakata (Japan) was made in the context of the Symposium.

313. The Committee agreed that a symposium on space and forests should be held during the forty-ninth session of the Committee.

3. Observer status

314. The Committee noted that ESPI, an international non-governmental entity, had applied for permanent observer status with the Committee and that related correspondence and the statutes of the Institute had been made available during the current session of the Committee (see A/AC.105/2005/CRP.6).

315. At its 547th meeting, on 16 June, the Committee accepted the application of ESPI and granted the Institute permanent observer status with the Committee on the understanding that, in accordance with the agreement of the Committee at its thirty-third session concerning observer status for non-governmental organizations, ESPI would apply for consultative status with the Economic and Social Council.

4. Future role and activities of the Committee

316. On the basis of the special presentation made by Mr. Doetsch (see para. 19 above), the Chairman of the Committee prepared an informal paper for consideration by the Committee on its future role and activities. The Committee agreed that it was important to consider the evolution of space activities and to consider how the Committee could develop a long-term plan to enhance international cooperation in the peaceful uses of outer space.

317. The Committee held a preliminary discussion of the informal paper and the views of delegations are reflected in verbatim transcripts of the Committee (COPUOS/T.536, COPUOS/T.538 and COPUOS/T.547-549). The Committee requested the Office for Outer Space Affairs to prepare a working paper, taking into account the Chairman’s informal paper and giving due regard to the views expressed by representatives at the forty-eighth session of the Committee, for consideration at its forty-ninth session, in 2006.

5. Proposed programme budget for the biennium 2006-2007

318. The Committee had before it the proposed programme budget for the biennium 2006-2007 (A/60/6 (Sect. 6)).

319. The Committee noted with satisfaction that the proposed programme of work of the Office for Outer Space Affairs included the activities that had been

recommended by the Committee and its subsidiary bodies, including activities