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Draft report

Chapter II

Addendum

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

1. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its forty-fifth session (A/AC.105/911), which contained the results of its deliberations on the items assigned to it by the General Assembly in its resolution 62/217.

2. The Committee expressed its appreciation to Aboubekr Seddik Kedjar (Algeria) for his able leadership and contributions during the forty-fifth session of the Subcommittee.

3. The representatives of Chile, China, Colombia, the Czech Republic, Germany, India, Indonesia, Italy, Japan, Mexico, Nigeria, Pakistan, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under this item. During the general exchange of views, statements relating to this item were also made by representatives of other member States.

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

(a) "Activity of the Russian Federation on the space debris problem", by D. V. Gorobets (Russian Federation);

(b) "Sentinel Asia: collaboration from APRSAF", by M. Kajii (Japan);

(c) "Rapid mapping services and applications for emergency response", by H. Mehl (Germany);

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(d) “Youth views on capacity-building for community-based disaster management in the context of the recent disasters in the Asia-Pacific region”, by B. Thakore (SGAC);

(e) “The asteroid threat: approaching a time for international decision”, by F. Chang Díaz (ASE);

(f) “Introducing a new framework for space traffic management”, by J. Catena (SGAC);

(g) “International project RIM-PAMELA: investigation of cosmic antiparticle fluxes”, by A. Galper (Russian Federation).

5. The Committee took note with interest of the report of the Inter-Agency Meeting on Outer Space Activities on its twenty-eighth session (A/AC.105/909) and the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2008-2009 (A/AC.105/910).

6. At the 586th meeting, the Chairman of the Inter-Agency Meeting on Outer Space Activities, Francesco Pisano of the UNITAR Operational Satellite Applications Programme (UNOSAT) made a statement on the work of the Inter-Agency Meeting at its twenty-eighth session, held in Geneva from 16 to 18 January 2008.

7. The Committee agreed that, in accordance with the wish expressed by the Inter-Agency Meeting at its twenty-eighth session (A/AC.105/909, para. 43), the Meeting should report directly to the Committee and continue to ensure the widest possible participation of United Nations entities in the Meeting.

1. United Nations Programme on Space Applications

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

8. The Expert on Space Applications briefed the Committee on the overall strategy for the implementation of the United Nations Programme on Space Applications.

9. The Committee noted the priority thematic areas of the Programme, as referred to in the report of the Expert on Space Applications (A/AC.105/900, para. 5) and in the report of the Scientific and Technical Subcommittee on its forty-fifth session (A/AC.105/911, para. 31). The Committee noted that, in order to ensure the integrity of the Programme’s overall efforts, it was necessary for the Programme to continue to include in its activities all the priority thematic areas, such as natural resources management and environmental monitoring, disaster management, tele-education, tele-health and basic space science.

10. The Committee took note of the activities of the Programme carried out in 2007, as set out in the report of the Scientific and Technical Subcommittee (A/AC.105/911, paras. 36-39) and in the report of the Expert on Space Applications (A/AC.105/900, para. 55 and annex I). 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 those activities. The Committee

noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2008, as set out in the report of the Subcommittee (A/AC.105/911, para. 40).

11. 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 being carried out in implementing various recommendations of UNISPACE III.

12. The Committee noted with satisfaction the work carried out by the Office under the Programme.

13. The Committee once again expressed its concern that the financial resources available for the Programme 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 a priority activity of the Office for Outer Space Affairs.

(i) Conferences, training courses and workshops of the United Nations Programme on Space Applications

14. The Committee endorsed the workshops, training courses, symposiums and expert meetings planned for the remaining part of 2008, and expressed its appreciation to Austria, Bulgaria, Burkina Faso, Colombia, India, Indonesia, Kenya, Saudi Arabia, Thailand, the United Kingdom and the United States, as well as to ESA and IAF, for co-sponsoring, hosting and supporting those activities (A/AC.105/900, annex II).

15. The Committee endorsed the programme of workshops, training courses, symposiums and conferences planned to be held in 2009 for the benefit of developing countries, as follows:

(a) Six workshops and symposiums on the integrated applications of space technologies for sustainable development, disaster mitigation and environmental monitoring, which would also address issues related to natural resources management and various issues related to the United Nations global agendas for development;

(b) One workshop on the use of GNSS for integrated applications;

(c) One training course on the satellite-aided search and rescue system;

(d) One workshop on space law;

(e) One workshop on basic space science.

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

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

17. 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

provided five 12-month fellowships for postgraduate studies in GNSS and related applications.

18. The Committee expressed its appreciation to the Government of Argentina, which, through the National Commission on Space Activities (CONAE), had provided fellowships for a six-week training course at the Advanced School for Training in Landscape Epidemiology of the Mario Gulich Institute for Advanced Space Studies in Córdoba, Argentina.

19. The Committee noted that a new fellowship programme, to be called the "United Nations/Africa fellowship on telehealth", would be launched in November 2008 in cooperation with the Department of Telehealth of the Nelson R. Mandela School of Medicine, University of KwaZulu-Natal, South Africa, and the International Society for Telemedicine and eHealth. The fellowship programme would provide short-term, basic training in telemedicine for 40 to 80 physicians in two to four African countries each year.

20. 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

21. The Committee noted with appreciation the technical advisory services provided under the United Nations Programme on Space Applications in support of activities and projects promoting regional cooperation in space applications, as referred to in the report of the Expert on Space Applications (A/AC.105/900, paras. 34-42).

(b) International Space Information Service

22. The Committee noted with satisfaction that the publication entitled *Highlights in Space 2007* had been issued.[1]

23. 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

24. The Committee noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize cooperation with Member States at the regional and global levels, aimed at supporting the regional centres for space science and technology education, affiliated to the United Nations.

25. The Committee also noted that the General Assembly, in its resolution 62/217, had agreed that the regional centres should continue to report to the Committee on their activities on an annual basis.

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[1] United Nations publication, Sales No. E.08.I.7.

26. The Committee noted that the highlights of the activities of the regional centres supported under the Programme in 2007 and the activities planned for 2008 and 2009 were included in the report of the Expert on Space Applications (A/AC.105/900, annex III).

27. The Committee noted that the Government of India had continuously provided strong support to the Regional Centre for Space Science and Technology Education in Asia and the Pacific since its inception in 1995, including by making the appropriate facilities and expertise available to it through the Indian Space Research Organisation and Department of Space. The Committee also noted that, to date, the Centre had conducted 27 nine-month postgraduate courses.

28. The Committee noted that the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean had started organizing nine-month postgraduate courses in 2003. The Centre was strongly supported by the Governments of Brazil and Mexico and by the National Institute for Space Research of Brazil and the National Institute of Astrophysics, Optics and Electronics of Mexico. To date, the campus in Brazil had conducted five postgraduate courses on remote sensing and geographic information systems (GIS). The campus in Mexico had conducted two postgraduate courses on remote sensing and GIS and one course on satellite communications and had prepared a course on space and atmospheric science, to be offered in 2008.

29. The Committee noted that the African Regional Centre for Space Science and Technology—in French Language had been organizing nine-month postgraduate courses since its inauguration in 1998. The Centre was actively supported by the Governments of Algeria and Morocco, as well as by the Royal Centre for Remote Sensing, the Mohammadia Engineering School, 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 conducted nine nine-month postgraduate courses on remote sensing and GIS, satellite communications and satellite meteorology and global climate.

30. The Committee noted that, since its inauguration in Nigeria in 1998 under the auspices of the National Space Research and Development Agency of Nigeria, the African Regional Centre for Space Science and Technology Education—in English Language had organized 12 nine-month postgraduate courses.

31. The Committee noted the publication of *Capacity Building in Space Science and Technology: Regional Centres for Space Science and Technology Education, Affiliated to the United Nations*, which contained comprehensive information on the development and achievements of the regional centres since their inauguration (ST/SPACE/39).

32. The Committee emphasized that the promotion of regional and interregional cooperation was important for building capacity in space activities. In that regard, the Committee noted with appreciation the efforts made at the regional level through several ongoing initiatives and processes, including the annual sessions of the Asia-Pacific Regional Space Agency Forum, the biennial African Leadership Conferences on Space Science and Technology for Sustainable Development and the series of Space Conferences of the Americas.

33. The Committee further noted that the Asia-Pacific Space Cooperation Organization provided a cooperative arrangement to promote the peaceful uses of outer space in the region and had organized a master's degree in space technology and applications in Asia and the Pacific.

34. The Committee noted with satisfaction that, since 2005, the United Nations Programme on Space Applications had oriented its activities towards supporting low-cost or no-cost pilot projects that could contribute to sustainable development at the national, regional and international levels. The expanded focus of the Programme on such projects had yielded tangible results.

35. The Committee noted that, within its limited budget and with voluntary contributions from each participating entity, the Programme had implemented pilot projects in various thematic areas and had endeavoured to increase its support for pilot projects of national or regional significance in developing countries. The Office would continue those efforts with the voluntary support of the participating entities, based on the principle that funds not be transferred among the parties to a project. The Office would also place emphasis on the sustainability of projects with a view to applying space technologies to contribute to economic and social growth.

36. The Committee further noted that the Office would welcome offers of co-sponsorship for future projects that benefited developing countries.

(d) International Satellite System for Search and Rescue

37. 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.[2]

38. The Committee noted with satisfaction that COSPAS-SARSAT was using space technology to save the lives of people in distress around the globe. Since becoming operational in 1982, COSPAS-SARSAT had introduced analogue and digital emergency beacons worldwide and had expanded its space segment to include ad hoc payloads on geostationary and low-Earth orbit satellites that currently provided alert signals.

39. The Committee noted with satisfaction that COSPAS-SARSAT currently had 38 member States, which offered seven polar-orbiting and five geostationary satellites that provided worldwide coverage for the search and rescue beacons. Since 1982, COSPAS-SARSAT had helped to save approximately 22,000 lives.

40. The Committee took note of the phasing-out of the beacons operating at 121.5 MHz, which was to be completed by 1 February 2009. The Committee noted with satisfaction that outreach efforts were being undertaken to raise awareness of that programme change.

41. The Committee also noted that efforts were under way to establish an International Beacon Registration Database (IBRD) for COSPAS-SARSAT that would enable beacon owners in countries that did not register beacons to do so and

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[2] *Official Records of the General Assembly, Fifty-sixth Session, Supplement No. 20* and corrigendum (A/56/20 and Corr.1), para. 220.

nations that maintained a beacon registration service that was not available online to record their beacons with IBRD.

42. The Committee further noted that the use of satellites in mid-Earth orbit was being explored with a view to improving location accuracy, while reducing the inherent delay associated with satellites in low-Earth orbit, and international satellite-aided search and rescue operations.

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

43. The Committee noted that, in accordance with General Assembly resolution 62/217, 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.105/911, paras. 73-83).

44. The Committee encouraged further international cooperation in the use of remote sensing satellites, in particular by sharing experiences and technologies through bilateral, regional and international collaborative projects.

45. The Committee noted with satisfaction the signing of a declaration of intent for the development of the African Resource and Environmental Management constellation by Algeria, Nigeria and South Africa, which had taken place on the margins of the fifty-first session of the Committee.

46. The Committee stressed the important role of Earth observation satellite data in supporting activities in a number of key areas of sustainable development and emphasized, in that connection, the importance of providing non-discriminatory access to remote sensing data and to derived information at a reasonable cost or free of charge and in a timely manner, as well as the importance of building capacity in the use of remote sensing technology, in particular to meet the needs of developing countries.

47. The Committee noted with satisfaction the presentation by the observer for the secretariat of GEO, made at the forty-fifth session of its Scientific and Technical Subcommittee at the invitation of the General Assembly in its resolution 62/217, on the progress made in the implementation of the 10-year Work Plan for a Global Earth Observation System of Systems (GEOSS), and noted that GEOSS had been designed to make tangible contributions in the following nine "societal benefit areas": disasters, health, energy, climate, water, weather, ecosystems, agriculture and biodiversity.

48. The view was expressed that the free availability on the Internet of high resolution imagery of sensitive areas was cause for concern. That delegation proposed that guidelines consistent with national policies should be developed to regulate the availability in the public domain of such sensitive data.

49. The Committee encouraged further international cooperation among member States in the use of remote sensing satellites, in particular by sharing experiences and technologies through bilateral, regional and international collaborative projects.

3. Space debris

50. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had continued its consideration of the agenda item on space debris. The Committee took note of the discussion of the Subcommittee on space debris, as reflected in the report of the Subcommittee (A/AC.105/911, paras. 84-100).

51. The Committee noted with great satisfaction that, in paragraph 26 of its resolution 62/217, the General Assembly had endorsed the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space.

52. The Committee noted that the Subcommittee wished to be periodically informed by the Inter-Agency Space Debris Coordination Committee (IADC) of any revisions of the IADC Space Debris Mitigation Guidelines in the light of evolving technologies and debris mitigation practices and that the Space Debris Mitigation Guidelines of the Committee might be amended in accordance with such revisions.

53. The Committee noted with appreciation that some member States had already implemented space debris mitigation measures on a voluntary basis, through national mechanisms and consistent with the IADC Guidelines, and looked forward to receiving updates on the implementation of space debris mitigation measures through national mechanisms.

54. The Committee noted that some member States were continuing to carry out research on the problem of space debris, both nationally and internationally.

55. The Committee further noted that a new item on the agenda of the Legal Subcommittee at its forty-eighth session, in 2009, entitled “General exchange of information on national mechanisms relating to space debris mitigation measures”, would provide an opportunity for the Committee to be informed about different national approaches to the implementation of space debris mitigation guidelines and would be of assistance to those States that were still in the process of initiating such national measures.

56. 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 62/217, Member States, in particular spacefaring countries, should pay more attention to the problem of collisions of space objects, including those with nuclear power sources (NPS) on board, with space debris and to other aspects of space debris, as well as its re-entry into the atmosphere.

57. The Committee agreed that the voluntary guidelines for the mitigation of space debris would increase mutual understanding on acceptable activities in space and thus enhance stability in space-related matters and decrease the likelihood of friction and conflict.

58. Some delegations expressed the view that the adoption of the Space Debris Mitigation Guidelines of the Committee was the first important step towards a comprehensive solution to the problem of the safety of space traffic and looked forward to further discussions on the topic.

59. The view was expressed that the issue of space debris should also be considered by the Legal Subcommittee, with a view to developing a binding legal framework.

60. The view was expressed that transparency among Member States was indispensable to space debris mitigation, and all spacefaring States were urged to share information regarding the location and physical characteristics of space debris potentially resulting from their activities.

61. Some delegations expressed the view that, while the voluntary guidelines represented a significant advance, they would not cover all debris-producing situations and, accordingly, would need to be kept under consideration.

62. The view was expressed that the States most responsible for the creation of space debris and the States having the capability to take action on space debris mitigation should make a greater contribution to space debris mitigation efforts than other States.

4. Space-system-based disaster management support

63. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had considered the agenda item on space-system-based disaster management support and that, pursuant to paragraph 155 of the report of the Committee on its fiftieth session, the Subcommittee had requested the Working Group of the Whole to consider the agenda item. The Committee took note of the discussions of the Subcommittee under that agenda item, as contained in the report of the Scientific and Technical Subcommittee, including the discussions and recommendations of the Working Group of the Whole (A/AC.105/911, paras. 101-111, and annex I, paras. 14-21).

64. The Committee noted with satisfaction the progress made by the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) in carrying out its activities for 2007, including inaugurating and making fully operational the UN-SPIDER office in Bonn, Germany, as set out in the report on activities carried out in 2007 in the framework of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (A/AC.105/899).

65. The Committee noted with appreciation that significant extrabudgetary resources had been provided by various member States to support the implementation of the UN-SPIDER activities in 2008 and 2009 and that, in addition to the contributions received to date, Austria and the Czech Republic would be making additional cash contributions to support the implementation of the programme.

66. The Committee noted with satisfaction the increase in the availability of space-based information, as well as in the provision of expertise to support emergency relief efforts, as indicated by the level of support provided during the recent natural disasters of Cyclone Nargis in Myanmar, the earthquake in the Sichuan Province of China and the floods in Namibia.

67. The Committee noted that, in accordance with paragraph 11 of General Assembly resolution 61/110 of 14 December 2006, UN-SPIDER should work closely with national and regional centres of expertise in the use of space

technology in disaster management to form a network of regional support offices for implementing the activities of the programme in their respective regions in a coordinated manner and to take advantage of the important experience and capabilities being offered, and to be offered, by Member States, particularly by developing countries, and agreed with the following guidelines for selecting and setting up the proposed UN-SPIDER regional support offices:

(a) A UN-SPIDER regional support office will be set up within an existing entity by a Member State or group of Member States that has put forward an offer to set up and fund the proposed regional support office, with the agreement of the Office for Outer Space Affairs, in consultation with the respective regional group;

(b) The entity should provide office space, infrastructure (computer equipment, office furniture, communication facilities, and maintenance and operational support), and at least one expert, to be the Coordinator of the regional support office. Additional funding should be provided by the entity to ensure the participation of regional support office staff in UN-SPIDER and other relevant activities, as well as to support the agreed UN-SPIDER-related activities to be carried out by the regional support office;

(c) The Director of the Office for Outer Space Affairs, on receiving a formal offer to set up and fund a regional support office and following consultations with the respective regional group, will work with the entity offering to set up the regional support office, through an exchange of letters, to define a proposed workplan, to be carried out by that office in accordance with the approved UN-SPIDER workplan;

(d) The Office for Outer Space Affairs will report annually to the Scientific and Technical Subcommittee, within the UN-SPIDER annual report, on the activities of the regional support office;

(e) The Office will consult with the Group of African States regarding the offers already received from Algeria (for North Africa) and Nigeria (for West Africa).

68. Some delegations expressed the view that UN-SPIDER should continue coordinating its activities with other, existing institutions and initiatives that promoted the use of space-based solutions for disaster risk management, with a view to ensuring that there was no duplication of effort between the work of UN-SPIDER and the work being carried out by those institutions and initiatives.

69. Some delegations were of the view that the Office should, in planning the mid- and long-term work of UN-SPIDER, take into account the fiscal realities facing the United Nations and should work to find ways to increase efficiency and make cost savings.

5. Recent developments in global navigation satellite systems

70. In accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee considered the agenda item on recent developments in global navigation satellite systems, as a new regular item, and reviewed issues related to the International Committee on Global Navigation Satellite Systems (ICG), the latest developments in the field of GNSS and new GNSS applications.

71. The Committee noted that, pursuant to General Assembly resolution 62/217, the Chairman of ICG had made a statement to the Subcommittee on the current and future activities of ICG.

72. The Committee noted that the Office for Outer Space Affairs served as executive secretariat of ICG and its Providers Forum. The Committee commended the Office on the support that it continued to provide in its role as executive secretariat.

73. The Committee noted with appreciation that ICG had been established, on a voluntary basis, as a forum to promote cooperation, as appropriate, on matters of mutual interest to its members related to civil satellite-based positioning, navigation, timing and value-added services, as well as cooperation on the compatibility and interoperability of GNSS, and to promote the use of GNSS to support sustainable development, particularly in developing countries. The Committee also noted with appreciation that the establishment of ICG had been a concrete result of the implementation of the recommendations of UNISPACE III.

74. The Committee noted with satisfaction that ICG had held its first meeting in Vienna on 1 and 2 November 2006 (A/AC.105/879) and its second meeting in Bangalore, India, from 4 to 7 September 2007 (A/AC.105/901). The Committee also noted that the third meeting of ICG would be held in Pasadena, United States, from 8 to 12 December 2008 and that the fourth meeting would be held in the Russian Federation in 2009.

75. The Committee noted that the Providers Forum, which had been established within ICG to enhance the compatibility and interoperability of current and future regional and global navigation satellite systems, and which currently included China, India, Japan, the Russian Federation and the United States, as well as the European Community, had held its first meeting in Bangalore, India, on 4 September 2007.

76. The Committee noted that the membership structure of ICG included members, associate members and observers, and that currently nine States, the European Community and 15 organizations (United Nations entities and intergovernmental and non-governmental organizations) were members of ICG. The Committee further noted that participation in ICG was open to all States and entities that were providers or users of GNSS services and that were interested and willing to actively engage in ICG activities.

77. The Committee agreed on the importance of international cooperation on matters related to the compatibility and interoperability of regional and global space-based positioning, navigation and timing systems, and on the importance of promoting the use of GNSS for the benefit of people worldwide, as space-based positioning, navigation and timing services were of vital importance to all economies and societies.

78. The Committee noted that an ICG information portal had been established to provide information on the activities of ICG and its Providers Forum.[3]

[3] The ICG information portal is available at www.icgsecretariat.org.

79. The Committee also noted that, as new space-based positioning, navigation and timing systems emerged, it was crucial, for the benefit of all, that they be compatible and interoperable.

6. Use of nuclear power sources in outer space

80. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had continued its consideration of the item on the use of NPS in outer space. The Committee took note of the discussion of the Subcommittee on the use of NPS in outer space, as reflected in the report of the Subcommittee (A/AC.105/911, paras. 134-153).

81. The Committee noted that the Subcommittee, at its forty-fifth session, had reconvened its Working Group on the Use of Nuclear Power Sources in Outer Space under the chairmanship of Sam A. Harbison (United Kingdom). The Committee noted that the Working Group had considered the results of the work of the Joint Expert Group of the Scientific and Technical Subcommittee and the International Atomic Energy Agency (IAEA) in the development of an international technically based framework of goals and recommendations for the safety of planned and currently foreseeable NPS applications in outer space.

82. The Committee noted that the Joint Expert Group had prepared the updated text of the draft safety framework for NPS applications in outer space, which had subsequently been made available by the Secretariat in document A/AC.105/C.1/L.292/Rev.1 and, in April 2008, had been sent for comments to member States and permanent observers of the Committee, as well as to the four IAEA safety standards committees and the Commission on Safety Standards of IAEA. The Committee further noted that the Joint Expert Group, at its fourth meeting, held in Vienna from 9 to 11 June, had considered the comments received by that date.

83. The Committee noted with satisfaction that the Joint Expert Group had continued to successfully implement the actions set out in its workplan for the period 2007-2010.

84. The view was expressed that it would be highly desirable to apply best practices, in the interests of safeguarding people and the environment in the Earth's biosphere and people involved in missions using NPS and of protecting the outer space environment.

85. The view was expressed that, until the safety framework had been clearly defined and progress had been made towards more specific commitments in terms of the use of NPS in outer space, their use should, to the maximum extent possible, be restricted and comprehensive and transparent information setting out the measures taken to ensure safety should be provided for other countries. That delegation was of the view that no justification existed for contemplating the use of NPS in Earth orbits, for which other sources of energy were available that were much safer and that had been proven to be efficient.

86. The view was expressed that it was essential to pursue and promote the formulation of binding international standards dealing with NPS.

87. The view was expressed that the adoption of a safety framework for the use of NPS applications in outer space would strengthen the existing regime applicable to the use of that type of energy source in outer space.

88. The view was expressed that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in regulatory activity associated with the use of NPS in outer space and that the matter concerned all of humanity. That delegation was of the view that Governments bore international responsibility for national activities involving the use of NPS in outer space conducted by governmental or non-governmental organizations and that such activities must be beneficial and not detrimental to humanity.

89. Some delegations were of the view that NPS continued to play an important role in space exploration, since they remained the only source of energy possible for certain space missions.

7. Near-Earth objects

90. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had considered the agenda item on near-Earth objects under the three-year workplan amended at its forty-fourth session (A/AC.105/890, annex III). The Committee took note of the discussion of the Subcommittee under that agenda item, as reflected in the report of the Subcommittee (A/AC.105/911, paras. 154-166).

91. The Committee noted that the Subcommittee had reconvened its Working Group on Near-Earth Objects, under the chairmanship of Richard Crowther (United Kingdom). The Committee noted with satisfaction the work carried out by the Working Group and the Action Team on Near-Earth Objects and endorsed the amended multi-year workplan for 2009-2011 (A/AC.105/911, annex III).

92. The Committee noted that international conferences such as the forthcoming conference entitled “100 years since the Tunguska phenomenon: past, present and future”, to be hosted by the Russian Academy of Sciences in Moscow from 26 to 28 June 2008, provided opportunities to raise awareness among decision makers about the threat posed by near-Earth objects and to promote further cooperation.

8. International Heliophysical Year 2007

93. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had considered an agenda item on the International Heliophysical Year 2007, under the three-year workplan adopted at the forty-second session of the Subcommittee (A/AC.105/848, annex I). The Committee took note of the discussion of the Subcommittee under the agenda item, as reflected in the report of the Subcommittee (A/AC.105/911, paras. 167-181).

94. The Committee noted with appreciation that the three-year workplan adopted at the forty-second session of the Subcommittee (A/AC.105/848, annex I) had been extended to cover four years, and that the Scientific and Technical Subcommittee would discuss International Heliophysical Year 2007 as a single agenda item at its forty-sixth session, in 2009.

95. The Committee noted with satisfaction that the International Heliophysical Year 2007 was an international endeavour, with States from every region of the world hosting instrument arrays, providing scientific investigators or offering supporting space missions, and that the official opening of the International Heliophysical Year 2007 worldwide campaign had taken place during the forty-fourth session of the Scientific and Technical Subcommittee, accompanied by an exhibition on the International Heliophysical Year 2007, held at the United Nations Office at Vienna.

96. The Committee noted that that the Fourth United Nations/European Space Agency/National Aeronautics and Space Administration/Japan Aerospace Exploration Agency Workshop on the International Heliophysical Year 2007 and Basic Space Science, hosted by the Government of Bulgaria, had been held in Sozopol, Bulgaria, from 2 to 6 June 2008, following the third workshop, which had been held in Tokyo in 2007. The Committee further noted that the fifth workshop would be hosted by the Republic of Korea and held in Jeju from 22 to 25 September 2009.

97. The Committee also noted that the International Heliophysical Year 2007 European heliophysics school would be held at the International Centre for Theoretical Physics in Trieste, Italy, in October 2008.

9. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including 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

98. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had 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.105/911, paras. 182-189).

99. Some delegations reiterated the view that the geostationary orbit was a limited natural resource, which ran the risk of becoming saturated. Those delegations were of the view that the exploitation of the geostationary orbit should be rationalized and made available to all countries, irrespective of their current technical capabilities, thus giving them the opportunity to have access to the geostationary orbit under equitable conditions, taking into account in particular the needs of developing countries and the geographical position of certain countries, with the participation and cooperation of ITU. Those delegations therefore considered that the item on the geostationary orbit should remain on the agenda of the Subcommittee for further discussion, with the purpose of continuing to analyse its scientific and technical characteristics.

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

100. The Committee noted that, in accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee had considered

proposals for a draft provisional agenda for its forty-sixth session. The Subcommittee had endorsed the recommendations of its Working Group of the Whole concerning the draft provisional agenda for the forty-sixth session of the Subcommittee (A/AC.105/911, paras. 190-193 and annex I).

101. The Committee welcomed the agreement of the Subcommittee that the topic for the 2009 symposium, to be organized by IAF, chosen from a list of topics proposed by IAF, should be "The role of Earth observation satellites in promoting understanding of and addressing climate change concerns" and that the symposium should be held during the first week of the forty-sixth session of the Subcommittee.

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

1. General exchange of views and introduction of 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. Space debris.
6. Space-system-based disaster management support.
7. Recent developments in global navigation satellite systems.
8. Items to be considered under workplans:

   (a) Use of nuclear power sources in outer space;

   (Work for 2009 as reflected in the multi-year workplan in the report of the Scientific and Technical Subcommittee on its forty-fourth session (A/AC.105/890, annex II, para. 7))

   (b) Near-Earth objects.

   (Work for 2009 as reflected in the multi-year workplan in the report of the Scientific and Technical Subcommittee on its forty-fifth session (A/AC.105/911, annex III, para. 11))
9. Single issue/item for discussion: Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including 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.
10. Single issue/item for discussion: International Heliophysical Year 2007.

11. Draft provisional agenda for the forty-seventh 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.

103. The Committee endorsed the recommendation that the Working Group on the Use of Nuclear Power Sources in Outer Space and the Working Group on Near-Earth Objects should reconvene in accordance with their multi-year workplans (A/AC.105/911, annex I, paras. 23 and 24) and agreed that the Subcommittee should reconvene the Working Group of the Whole at its forty-sixth session.