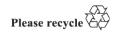


Report of the Committee on the Peaceful Uses of Outer Space

Fifty-fifth session (6-15 June 2012)

General Assembly Official Records Sixty-seventh Session Supplement No. 20



General Assembly

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Chapter I

Introduction

1. The Committee on the Peaceful Uses of Outer Space held its fifty-fifth session in Vienna from 6 to 15 June 2012. The officers of the Committee were as follows:

Chair: Yasushi Horikawa (Japan)
First Vice-Chair: Filipe Duarte Santos (Portugal)

Second Vice-Chair/Rapporteur: Piotr Wolanski (Poland)

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-ninth session in Vienna from 6 to 17 February 2012, under the chairmanship of Félix Clementino Menicocci (Argentina). The report of the Subcommittee was before the Committee (A/AC.105/1001).
- 3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space had held its fifty-first session in Vienna from 19 to 30 March 2012, under the chairmanship of Tare Charles Brisibe (Nigeria). The report of the Subcommittee was before the Committee (A/AC.105/1003).

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. Election of officers.
 - 4. Statement by the Chair.
 - 5. General exchange of views.
 - 6. Ways and means of maintaining outer space for peaceful purposes.
 - 7. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
 - 8. Report of the Scientific and Technical Subcommittee on its forty-ninth session.
 - 9. Report of the Legal Subcommittee on its fifty-first session.
 - 10. Spin-off benefits of space technology: review of current status.
 - 11. Space and society.
 - 12. Space and water.

- 13. Space and climate change.
- 14. Use of space technology in the United Nations system.
- 15. Future role of the Committee.
- 16. Other matters.
- 17. Report of the Committee to the General Assembly.

C. Election of officers

- 5. At the 644th meeting of the Committee, on 6 June, Yasushi Horikawa (Japan) was elected Chair of the Committee, Filipe Duarte Santos (Portugal) was elected First Vice-Chair and Piotr Wolanski (Poland) was elected Second Vice-Chair/Rapporteur, each for a two-year term of office.
- 6. Also at its 644th meeting, the Committee endorsed the election of Félix Clementino Menicocci (Argentina) as Chair of the Scientific and Technical Subcommittee and Tare Charles Brisibe (Nigeria) as Chair of the Legal Subcommittee for a two-year term of office, starting with the sessions of the Subcommittees held in 2012.

D. Membership

7. In accordance with General Assembly resolutions 1472 A (XIV), 1721 E (XVI), 3182 (XXVIII), 32/196 B, 35/16, 49/33, 56/51, 57/116, 59/116, 62/217, 65/97 and 66/71 and decision 45/315, the Committee on the Peaceful Uses of Outer Space was composed of the following 71 States: Albania, Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Benin, Bolivia (Plurinational State of), 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, Libya, 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, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

E. Application for membership

- 8. Applications for membership of the Committee were received from the following three States:
 - (a) Armenia (note verbale dated 26 March 2012);
 - (b) Costa Rica (note verbale dated 29 January 2012);
 - (c) Jordan (note verbale dated 20 December 2011).

F. Attendance

- 9. Representatives of the following 58 States members of the Committee attended the session: Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Lebanon, Libya, Malaysia, Mexico, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Slovakia, South Africa, Spain, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Kingdom, United States, Venezuela (Bolivarian Republic of) and Viet Nam.
- 10. At its 644th meeting, on 6 June, the Committee decided to invite, at their request, observers for Angola, Armenia, Belarus, Costa Rica, the Dominican Republic, El Salvador, Israel, Jordan, Luxembourg, Oman, Panama and the United Arab Emirates, as well as the Holy See, to attend its fifty-fifth 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.
- 11. At the same meeting, the Committee decided to invite, at its request, the observer for the European Union to attend its fifty-fifth 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.
- 12. Observers for the International Telecommunication Union (ITU) and the United Nations Institute for Disarmament Research (UNIDIR) attended the session.
- 13. The session was attended by observers for the following intergovernmental organizations with permanent observer status with the Committee: the Asia-Pacific Space Cooperation Organization (APSCO), the Association of Remote Sensing Centres in the Arab World, the European Organisation for Astronomical Research in the Southern Hemisphere, the European Space Agency (ESA), the European Telecommunications Satellite Organization, the International Organization of Space Communications (Intersputnik) and the Regional Centre for Remote Sensing of North African States.
- 14. The session was also attended by observers for the following non-governmental organizations with permanent observer status with the Committee: EURISY, the European Space Policy Institute, the International Academy of Astronautics (IAA), the International Association for the Advancement of Space Safety, the International Astronautical Federation (IAF), the International Astronomical Union, the International Institute for Applied Systems Analysis, the International Institute of Space Law, the International Society for Photogrammetry and Remote Sensing, the Prince Sultan bin Abdulaziz International Prize for Water, the Secure World Foundation, the Space Generation Advisory Council (SGAC) and the World Space Week Association.
- 15. At its 644th meeting, the Committee also decided to invite, at their request, the observers for the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation and the Scientific Committee on Solar-Terrestrial

Physics (SCOSTEP) to attend its fifty-fifth 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.

16. 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 A/AC.105/2012/INF/1.

G. General statements

- 17. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Austria, Brazil, Burkina Faso, Canada, China, Cuba, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Libya, Malaysia, Mexico, Nigeria, Pakistan, Poland, Republic of Korea, Romania, Russian Federation, Saudi Arabia, South Africa, Switzerland, Thailand, Turkey, Ukraine, United States and Venezuela (Bolivarian Republic of). Statements were also made by the representative of South Africa on behalf of the Group of African States and the representative of Ecuador on behalf of the Group of Latin American and Caribbean States, and the representative of France together with the observer for the European Union made statements on behalf of the European Union. The observers for Armenia, Israel, Jordan and the United Arab Emirates also made statements. A statement was made by the observer for ITU. Statements were also made by the observers for APSCO, the Association of Remote Sensing Centres in the Arab World, ESA, IAA, IAF, the Secure World Foundation and SGAC. A statement was also made by the observer for SCOSTEP.
- 18. At the 644th meeting, the Chair delivered a statement highlighting the role played by the Committee and its Subcommittees in promoting efforts to further space exploration and research and in bringing the benefits of space technology to Earth, in particular with regard to meeting the challenges of climate change and disasters, as well as food security and the health of the global population. He stressed the need to support regional and interregional cooperation in the field of space activities and capacity-building, and the need to ensure closer coordination between the Committee and other intergovernmental bodies involved in the global development agenda of the United Nations.
- 19. At the 646th meeting, on 7 June, the Director of the Office for Outer Space Affairs of the Secretariat briefed the Committee on the work carried out by the Office during the past year and its current financial status and stressed the importance of the availability of financial and other resources for the successful implementation of the Office's programme of work.
- 20. The Committee welcomed Azerbaijan as a new member. The Committee also welcomed the Association of Remote Sensing Centres in the Arab World as a new intergovernmental organization with permanent observer status with the Committee.
- 21. The Committee conveyed its condolences to the peoples of those countries that had suffered natural disasters, in particular for the loss of many lives and the great damage caused, and stressed that loss of life and property could be diminished if

better information were available through improved risk assessment, early warning and monitoring of disasters.

- 22. The Committee congratulated the United States on the fortieth anniversary of the Landsat programme and its contributions to Earth observation and international cooperation in space activities. The Committee noted that the Earth Resources Technology Satellite, which had been launched on 23 July 1972 and renamed Landsat in 1975, had marked the beginning of the longest-running civilian Earth observation programme. The Committee further noted that the programme was a good example of international space cooperation, with Landsat data now being used around the world for a broad range of applications.
- The Committee noted with appreciation the special panel on the fortieth anniversary of the Landsat programme and the worldwide evolution of remote sensing from space that had been held on 6 June. The panel had been chaired by Yasushi Horikawa, Chair of the Committee, and opening remarks had been delivered by Ken Hodgkins of the United States Department of State. The presentations given had included the following: "Origin and legacy of the Landsat programme", by Jean Parcher of the United States Geological Survey; "Space-based Earth observations", by Barbara Ryan of the World Meteorological Organization; "Evolution of Landsat data utilization", by Lothar Beckel of the European Academy of Sciences and Arts; "International cooperation", by Gerard Brachet, chief executive officer of Spot Image from 1982 to 1994; and "Role of Landsat in revolutionizing the management of natural resources", by U. R. Rao of the Indian Space Research Organisation. A video message on the theme "Future of the Landsat programme" had been delivered by Anne Castle of the United States Department of the Interior, followed by a round-table discussion on the theme "Landsat and the evolution of Earth observations over the past 40 years", moderated by Sergio Camacho (Mexico) and comprising the following participants: Adigun Ade Abiodun (Nigeria), Marek Baranowski (Poland), Tamotsu Igarashi (Japan), Ahmed Obaid Al Mansoori (United Arab Emirates), Chaiyan Maolanont (Thailand) and Félix C. Menicocci (Argentina).
- 24. The Committee also noted with appreciation the exhibition held at the Vienna International Centre during the present session on the theme "Fortieth anniversary of the Landsat programme and the evolution of worldwide remote sensing from space", contributions to which had been made by the following countries: Austria, Canada, Indonesia, Iran (Islamic Republic of), Japan, Pakistan and United States.
- 25. The Committee expressed its gratitude to the Government of China for the donation of a Beidou navigation satellite model to the permanent exhibition of the Office for Outer Space Affairs at the Vienna International Centre.
- 26. The Committee heard the following presentations:
 - (a) "Japanese international cooperation", by the representative of Japan;
 - (b) "RISAT-1", by the representative of India.
- 27. The Committee noted with appreciation the successful completion of the 62nd International Astronautical Congress, held in Cape Town, South Africa, from 3 to 7 October 2011. The Committee noted with satisfaction that the 63rd International Astronautical Congress would be hosted by the Government of Italy and held in Naples from 1 to 5 October 2012.

28. The Committee welcomed with appreciation the publications "Space matters" (ST/SPACE/45) and *Messages from Space Explorers to Future Generations*, published by the Office for Outer Space Affairs (available on the website of the Office). The Committee noted that "Space matters" provided an overview of the work of the Office for Outer Space Affairs while at the same time illustrating the vital contributions that space science and technology made towards the betterment of humanity, and that *Messages from Space Explorers to Future Generations* contained a compilation of messages from astronauts and cosmonauts to the next generation of space explorers.

H. Adoption of the report of the Committee

29. After considering the various items before it, the Committee, at its 659th meeting, on 15 June 2012, 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

- 30. In accordance with paragraph 19 of General Assembly resolution 66/71, the Committee continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes.
- 31. The representatives of Brazil, Indonesia, Japan, the Russian Federation, Saudi Arabia, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by other member States, the representative of South Africa on behalf of the Group of African States and the representative of Ecuador on behalf of the Group of Latin American and Caribbean States, and the representative of France, together with the observer for the European Union, made statements on behalf of the European Union.
- 32. The Committee heard the following presentations under this item:
 - (a) "Space Security Index 2012", by the representative of Canada;
- (b) "International cooperation among the international space station partners and Japan's contribution and activities", by the representative of Japan.
- 33. The Committee agreed that, through its work in the scientific, technical and legal fields, as well as through the promotion of international dialogue and the exchange of information on various topics related to the exploration and use of outer space, it had a fundamental role to play in ensuring that outer space was maintained for peaceful purposes.
- 34. The Committee emphasized that international, regional and interregional cooperation and coordination in the field of space activities were essential to strengthen the peaceful uses of outer space and to assist States in the development

of their space capabilities, and agreed that, during its consideration of ways and means of maintaining outer space for peaceful purposes, the Committee should continue to consider ways to promote international, regional and interregional cooperation and the role that space technology could play in the implementation of the recommendations of the World Summit on Sustainable Development.¹

- 35. The Committee noted with appreciation that the fourth African Leadership Conference on Space Science and Technology for Sustainable Development, on the theme "Building a shared vision for space in Africa", had been hosted by the Government of Kenya and held in Mombasa from 26 to 28 September 2011. The Committee noted with satisfaction the various outcomes of the Conference, reflected in the Mombasa Declaration adopted at the Conference, such as the reaffirmation of developing space technologies and related activities for African countries, implementation of the African Resource Management satellite constellation, the establishment of an integrated regional disaster management system in coordination with the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER) and its regional support offices in Africa, and the call for the accession of African countries to the United Nations treaties on outer space.
- 36. The Committee noted with satisfaction that the eighteenth session of the Asia-Pacific Regional Space Agency Forum, the main theme of which had been "A regional collaboration for tomorrow's environment", had been held in Singapore from 6 to 9 December 2011. The nineteenth session of the Forum would be jointly organized by the Government of Malaysia and the Government of Japan and would be held in Kuala Lumpur from 11 to 14 December 2012.
- 37. The Committee also noted with satisfaction that the fifth meeting of APSCO had been held in Beijing on 8 September 2011 and that the sixth meeting of the Council of APSCO would be held in Tehran on 17 and 18 July 2012. The Committee also noted that a space law and policy forum would be held in Beijing from 19 to 21 June 2012.
- 38. The Committee further noted with satisfaction that the Government of Mexico had assumed the pro tempore secretariat of the Sixth Space Conference of the Americas for the period 2011-2013, that pursuant to the Pachuca Declaration a consultative group on space technology had been established comprising representatives of space-related governmental entities in the region, and that preparations were being made for a meeting of heads of space agencies, to be held in July 2012, which would provide further impetus to the implementation of the recommendations of the Conference.
- 39. The Committee noted the positive role that bilateral and multilateral agreements played in promoting common space exploration objectives and cooperative and complementary space exploration missions.
- 40. The view was expressed that the Committee played a unique role by providing a forum for discussions between the increasingly large number of States involved in space activities that encouraged collaborative processes and consensus-building in

¹ Report of the World Summit on Sustainable Development, Johannesburg, South Africa, 26 August-4 September 2002 (United Nations publication, Sales No. E.03.II.A.1 and corrigendum).

an increasingly fragile and threatened domain — outer space — which had become integral to almost every State's infrastructure.

- 41. The view was expressed that the Committee played an increasingly large role in the field of global security as it considered the use of space systems for disaster management and cosmic threats.
- 42. Some delegations expressed the view that it was necessary to ensure greater security in outer space through the development and implementation of measures for transparency and confidence-building.
- 43. Some delegations expressed the view that the existing legal regime with respect to outer space was not adequate to prevent the placement of weapons in outer space and address issues related to the space environment and that it was important to further develop international space law in order to maintain outer space for peaceful purposes. In that regard, those delegations were of the view that in order to ensure that outer space was used peacefully and to prevent its militarization, it would be necessary to elaborate binding norms.
- 44. Some delegations expressed the view that, in order to maintain the peaceful nature of space activities and prevent the placement of weapons in outer space, it was essential for the Committee to enhance its cooperation and coordination with other bodies and mechanisms of the United Nations system such as the First Committee of the General Assembly and the Conference on Disarmament.
- 45. The view was expressed that the Committee had been created exclusively to promote international cooperation with respect to the peaceful uses of outer space and that disarmament issues were more appropriately dealt with in other forums such as the First Committee of the General Assembly and the Conference on Disarmament. In that connection, that delegation was of the view that no actions by the Committee were needed regarding the weaponization of outer space and that there was no scarcity of appropriate multilateral mechanisms in which disarmament could be discussed.
- 46. Some delegations informed the Committee that a stand-alone meeting on the draft international code of conduct for outer space activities had been held in Vienna on 5 June 2012, prior to the start of the fifty-fifth session of the Committee, in order to provide information on that initiative.
- 47. The Committee noted that reference was made to the draft international code of conduct for outer space activities, inter alia, during the general discussion.
- 48. Some delegations expressed their support for the initiative with a view to adopting an international code of conduct for outer space activities.
- 49. Some delegations expressed the view that the draft international code of conduct included transparency and confidence-building measures and reflected a comprehensive approach to safety and security in outer space guided by the following principles: freedom of access to space for all for peaceful purposes; preservation of the security and integrity of space objects in orbit; and due consideration for the legitimate security and defence interests of States.
- 50. The view was expressed that some pivotal provisions of the draft international code of conduct for outer space activities seemed to be directly related to the issue of security in space and of space operations and, hence, afforded the opportunity to

establish a liaison between the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee and the future multilateral open forum on the draft international code of conduct for outer space activities.

- 51. The view was also expressed that any potential rules of conduct for space activities and/or guidelines on the long-term sustainability of space activities, as well as confidence-building measures in general, should be in full conformity with international law, with the stipulation that a State's responsibilities should extend only to the space objects of its registry, unless otherwise agreed by the said State and any other State, and should not, by any means, imply the possibility of exerting arbitrary impact on the space object of another State.
- 52. The view was expressed that any agreement on a concept of right to self-defence in outer space might ultimately legitimize the militarization of outer space.
- 53. The view was expressed that the Committee should keep abreast of new initiatives relating to activities in outer space and react to them, when appropriate, especially to activities not in line with the United Nations treaties and principles on outer space or the Committee's goal of neutralizing threats posed to the sustainability of outer space activities. In that connection, that delegation was of the view that the Committee should ensure that all new concepts and schemes aimed at providing security in outer space and for space operations should be developed responsibly and conform with international law.
- 54. The view was expressed that consideration of the topic of the long-term sustainability of outer space activities enabled the international community to find multifaceted solutions, as the exchange of information on the situation in outer space presupposed confidence among States, and such confidence would become feasible once States had attained a common vision with respect to the legitimate types of space activities related to national security.
- 55. The view was expressed that potential guidelines on the long-term sustainability of space activities should be viewed as a functional supplement to the general concept of ensuring comprehensive security in space and neutralizing threats in that sphere.
- 56. The view was expressed that the Committee should foster the readiness of States to collectively agree on reasonable and, in terms of international law, legitimate conditions for using outer space for the purposes of national security that would be based on the principle of non-use of force or threat of force in outer space. Achieving such a task would be necessary for, inter alia, achieving a common understanding of the operation of potential guidelines on the long-term sustainability of space activities.
- 57. The view was expressed that the present issues and challenges faced in the field of outer space should be addressed through inclusive development, which encompassed not only promoting the sustainable development of the outer space environment and resources but also ensuring that space activities benefited all countries, especially developing countries without space capability, as well as all humankind, both current and future generations.

- 58. The Committee noted that the General Assembly, in paragraph 2 of its resolution 65/68, had requested the Secretary-General to establish, on the basis of equitable geographical distribution, a group of governmental experts to conduct a study, commencing in 2012, on outer space transparency and confidence-building measures.
- 59. The view was expressed that the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee should establish connections with the group of governmental experts established pursuant to Assembly resolution 65/68, as well as with the Conference on Disarmament and the forum provided by the process of considering the draft international code of conduct for outer space activities.
- 60. Some delegations expressed the view that the proposed draft international code of conduct for outer space activities should take into account the need to keep outer space for peaceful purposes, with the time frame of the negotiations and the format and contents of the code to be agreed within the framework of the United Nations in order for such an initiative to be legitimate.
- 61. The view was expressed that the matters relating to ways and means of maintaining outer space for peaceful purposes should be considered in the context of and in conjunction with other agenda items of the Committee and its Subcommittees.
- 62. The Committee recommended that, at its fifty-sixth session, in 2013, consideration of the item on ways and means of maintaining outer space for peaceful purposes should be continued, on a priority basis.

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

- 63. The Committee considered the agenda item entitled "Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III)", in accordance with General Assembly resolution 66/71.
- 64. The representative of Japan made a statement under the item. Representatives of other member States also made statements relating to the item during the general exchange of views and the discussion on the report of the Scientific and Technical Subcommittee on its forty-ninth session.
- 65. The Committee heard the following presentations under the item:
- (a) "The 28th National Space Symposium supporting COPUOS objectives at the premier space gathering", by the representative of the United States;
- (b) "Space-based geospatial information development in Indonesia", by the representative of Indonesia;
- (c) "Space technology applications for disaster reduction in China", by the representative of China;

- (d) "Results from the inaugural Space Generation Fusion Forum the fusion of today's international space leaders with the next generation", by the observer for SGAC.
- 66. The Committee endorsed the decisions and recommendations of the Scientific and Technical Subcommittee and its Working Group of the Whole, which had been reconvened under the chairmanship of S. K. Shivakumar (India) to consider, inter alia, the implementation of the recommendations of UNISPACE III (A/AC.105/1001, para. 61 and annex I, paras. 4-5).
- 67. The Committee noted with satisfaction that the importance of space technology-based data and reliable geospatial information for sustainable development policymaking, programming and project operations was to be recognized in the context of the United Nations Conference on Sustainable Development (Rio+20), to be held in Rio de Janeiro, Brazil, from 20 to 22 June 2012, as reflected in the zero draft of the Rio+20 outcome document entitled "The future we want".
- 68. In the course of the discussion, delegations reviewed national and cooperative activities in the implementation of the recommendations of UNISPACE III. The Committee recalled that the outcomes of the implementation of the recommendations of UNISPACE III included the establishment of the International Committee on Global Navigation Satellite Systems (ICG) and UN-SPIDER, the results of the work of the thematic action teams, and other initiatives. The Committee noted that the UNISPACE III resolution entitled "The Space Millennium: Vienna Declaration on Space and Human Development" would continue to be a pillar of the promotion of international cooperation for peaceful uses of outer space.
- 69. The Committee took note of an event entitled "Humanitarian telemedicine", organized by the European Space Policy Institute on the margins of the fifty-fifth session of the Committee.
- 70. The Committee noted that a workshop of the Action Team on Public Health (action team 6) on the use of space technology to improve public health would be organized by the University of Koblenz-Landau of Germany in cooperation with the Office for Outer Space Affairs from 30 July to 1 August 2012 in Bonn, Germany. The workshop would focus on public health problems and would include items on spatial epidemiology, spatial logistic optimization of public health response and the possibilities for space technology applications to reduce pesticide application.

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

71. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its forty-ninth session (A/AC.105/1001), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 66/71.

² Report of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space, Vienna, 19-30 July 1999 (United Nations publication, Sales No. E.00.I.3), chap. I, resolution 1.

- 72. The Committee expressed its appreciation to Félix Clementino Menicocci (Argentina) for his able leadership during the forty-ninth session of the Subcommittee.
- 73. The representatives of Canada, China, Czech Republic, Germany, Indonesia, Japan, the Russian Federation, Saudi Arabia, Slovakia, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States, by the representative of South Africa on behalf of the Group of African States and by the representative of Ecuador on behalf of the Group of Latin American and Caribbean States.
- 74. The Committee heard the following presentations:
- (a) "Identification and evaluation of flooded areas using remote sensing and geographic information systems", by the representative of Ecuador;
- (b) "United Nations/Chile workshop on space technology applications for socioeconomic benefits", by the representative of Chile;
 - (c) "CleanSpace One", by the representative of Switzerland;
- (d) "Beidou: bring the world and China to your doorstep", by the representative of China;
- (e) "Scientific and technical activities on space weather in Austria", by the representative of Austria;
- (f) "Satellite applications in support of international cooperation for maritime safety and security: the BluemassMed experience", by the representative of Italy;
 - (g) "Megha-Tropiques", by the representative of India.

1. United Nations Programme on Space Applications

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

- 75. The Committee took note of the discussion of the Subcommittee under the item on the United Nations Programme on Space Applications, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 32-52 and annex I, para. 2).
- 76. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group of the Whole, which had been convened under the chairmanship of S. K. Shivakumar (India) to consider the item (A/AC.105/1001, paras. 35 and 45).
- 77. The Committee noted that the priority areas of the Programme were:
- (a) environmental monitoring; (b) natural resources management; (c) global health;
- (d) disaster management; (e) global navigation satellite systems applications;
- (f) basic space science, including the International Space Weather Initiative;
- (g) space law; (h) climate change; (i) the Basic Space Technology Initiative; and (j) the Human Space Technology Initiative.
- 78. The Committee took note of the activities of the Programme that had been carried out in 2011, as presented in the report of the Scientific and Technical

- Subcommittee (A/AC.105/1001, paras. 41-44) and in the report of the Expert on Space Applications (A/AC.105/1011, annex I).
- 79. 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. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored the activities.
- 80. The Committee noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2012, as described in the report of the Subcommittee (A/AC.105/1001, para. 45).
- 81. The Committee noted with satisfaction that the Office for Outer Space Affairs was helping developing countries and countries with economies in transition to participate in and benefit from activities being carried out under the Programme.
- 82. The Committee noted with concern the limited financial resources available to implement the Programme and appealed to States and organizations to continue supporting the Programme through voluntary contributions.
- 83. The Committee had before it the report on the United Nations/Malaysia Expert Meeting on Human Space Technology, held in Putrajaya, Malaysia, from 14 to 18 November 2011 (A/AC.105/1017); the report on the United Nations/Nigeria Workshop on the International Space Weather Initiative, held in Abuja from 17 to 21 October 2011 (A/AC.105/1018); the report on the United Nations International Meeting on the Applications of Global Navigation Satellite Systems, held in Vienna from 12 to 16 December 2011 (A/AC.105/1019); and the report on the United Nations/Viet Nam Workshop on Space Technology Applications for Socio-Economic Benefits, held in Hanoi from 10 to 14 October 2011 (A/AC.105/1020).
- 84. The Committee also had before it the report on the United Nations/Islamic Republic of Iran Regional Workshop on the Use of Space Technology for Human Health Improvement, held in Tehran from 23 to 26 October 2011 (A/AC.105/2012/CRP.13) and noted that the report would be made available as document A/AC.105/1021.
- 85. The Committee noted the conference room paper on activities under the Basic Space Technology Initiative in 2011-2012 and plans for 2013 and beyond (A/AC.105/2012/CRP.16).
- 86. The Committee took note of the outreach seminar, jointly organized by the Office for Outer Space Affairs in the framework of its Basic Space Science Initiative and the International Scientific Optical Network (ISON) led by the Academy of Sciences of the Russian Federation and held on the margins of the fifty-fifth session of the Committee.
- 87. The Committee also took note of the meeting of experts on the benefits for humanity of the International Space Station, organized by the Office for Outer Space Affairs in the framework of its Human Space Technology Initiative in cooperation with the International Space Station partners and held in Vienna on 11 and 12 June 2012.

- (i) Conferences, training courses and workshops of the United Nations Programme on Space Applications
 - 88. The Committee endorsed the workshops, training courses, symposiums and expert meetings planned for the remaining part of 2012 and expressed its appreciation to Argentina, Austria, Chile, Ecuador, Italy, Japan and Latvia, as well as ESA, IAF, ICG, the Japan Aerospace Exploration Agency and the National Aeronautics and Space Administration (NASA) of the United States, for co-sponsoring and hosting those activities (see A/AC.105/1011, annex II).
 - 89. The Committee endorsed the programme of workshops, training courses, symposiums and expert meetings related to environmental monitoring, natural resources management, global health, global navigation satellite systems (GNSS), international space weather, basic space technology, space law, climate change, human space technology and socioeconomic benefits of space activities to be held in 2013 for the benefit of developing countries.
 - 90. The Committee took note of the request of the Group of Latin American and Caribbean States that, taking into account the scope and achievements of the workshops on integrated space technology applications for sustainable development in the mountain regions of Andean countries, held in Argentina in 2007, Peru in 2009 and Bolivia (Plurinational State of) in 2010, the Office for Outer Space Affairs should continue to include on its agenda of activities to be held in 2013 the organization of a new workshop for the region.
- (ii) Long-term fellowships for in-depth training
 - 91. 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 continued to provide fellowships for postgraduate studies on GNSS and related applications.
 - 92. The Committee expressed its appreciation to the Government of Japan, which, through the Kyushu Institute of Technology, had provided fellowships for postgraduate studies in nanosatellite technologies.
 - 93. The Committee noted that it was important to increase opportunities for in-depth education in all areas of space science, technology and applications and space law through long-term fellowships and urged Member States to make such opportunities available at their relevant institutions.

(iii) Technical advisory services

94. 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.105/1011, paras. 38-47).

- (iv) Regional centres for space science and technology education, affiliated to the United Nations
 - 95. The Committee noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize, promote and foster cooperation with Member States at the regional and global levels to support the regional centres for space science and technology education, affiliated to the United Nations. The highlights of the activities of the regional centres supported under the Programme in 2011 and the activities planned for 2012 and 2013 were presented in the report of the Expert on Space Applications (A/AC.105/1011, annexes I-III).
 - 96. 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 the centres with significant financial and in-kind support.
 - 97. The Committee welcomed with satisfaction the inauguration on 29 May 2012 of the Centre for Space Science and Technology Education for Western Asia, affiliated to the United Nations, hosted by the Royal Jordanian Geographic Centre and located in Amman.

(b) International Satellite System for Search and Rescue

- 98. The Committee noted with satisfaction that the International Satellite System for Search and Rescue (COSPAS-SARSAT) currently had 41 member States and two participating organizations and that several more had shown interest in associating with the programme in the future. The Committee noted with appreciation that the worldwide coverage for emergency beacons had been made possible by the space segment, which consisted of six polar-orbiting and six geostationary satellites provided by Canada, France, the Russian Federation and the United States, along with the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT), as well as by the ground segment contributions made by 26 other countries. The Committee also noted that, since becoming operational in 1982, COSPAS-SARSAT had provided assistance in rescuing at least 32,300 persons in 9,000 search and rescue events and that in 2011 the system's alert data had helped to save 1,650 lives in 630 search and rescue events worldwide.
- 99. The Committee further noted that the use of satellites in medium-Earth orbit continued to be explored, with a view to improving international satellite-aided search and rescue operations. The Committee welcomed the testing of global positioning system satellites to improve the capabilities of beacons to best take advantage of medium-Earth orbit satellites.

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

- 100. The Committee took note of the discussion of the Subcommittee under the item on matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 62-73).
- 101. In the course of the discussion, delegations reviewed national and cooperative programmes on remote sensing, providing examples of national programmes and

bilateral, regional and international cooperation that had contributed to enhancing the potential of remote sensing technology to advance the socioeconomic development of their countries.

102. The Committee noted with satisfaction that a growing number of developing countries had been actively developing and deploying their own remote sensing satellite systems and utilizing space-based data to advance socioeconomic development, and it stressed the need to continue enhancing the capacities of developing countries with regard to the use of remote sensing technology.

103. The Committee noted the important role played in promoting regional cooperation in the use of remote sensing technology, in particular for the benefit of developing countries, by regional organizations such as APSCO and its remote sensing satellite project, and the Asia-Pacific Regional Space Agency Forum (APRSAF) and its initiatives the Sentinel Asia Project and the Space Applications for Environment programme.

104. The Committee recognized the important role played by international intergovernmental organizations such as the Committee on Earth Observation Satellites (CEOS) and the Group on Earth Observations (GEO), and noted that India had assumed the chairmanship of CEOS for 2012 and would host its plenary meeting in 2012. The Committee also noted that the Canadian Space Agency would assume the chairmanship of CEOS in 2013. The Committee further noted that Brazil would host the next GEO plenary session, in November 2012.

105. The Committee noted a number of international and regional conferences held on remote sensing, such as the International Symposium and Exhibition on Geoinformation 2011, held in Kuala Lumpur in September 2011; the International Workshop on Remote Sensing of the Environment for the Sub-Saharan Regions, organized by IAA and held in Nairobi in October 2011; the meeting of experts on the Global Monitoring for Environment and Security (GMES), organized by the Secure World Foundation and held in Brussels in February 2012; and the regional conference on GMES, co-organized by the Government of Romania, the European Commission, ESA and EURISY, and held in Bucharest in May 2012. The Committee further noted that the 33rd Asian Conference on Remote Sensing would be held in Pattaya, Thailand, from 26 to 30 November 2012, organized by the Government of Thailand and the Asian Association on Remote Sensing.

3. Space debris

106. The Committee took note of the discussion of the Subcommittee under the item on space debris, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 74-95).

107. The Committee endorsed the decisions and recommendations of the Subcommittee on the item (A/AC.105/1001, paras. 91 and 92).

108. The Committee noted with appreciation that some States were already implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee and/or the Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines and that other States had developed their own space debris mitigation standards based on those guidelines. The Committee also noted that other States were using the IADC

Guidelines and the European Code of Conduct for Space Debris Mitigation as reference points in their regulatory frameworks for national space activities. The Committee further noted that other States had cooperated, in the framework of the ESA space situational awareness programme, to address the issue of space debris.

- 109. Some delegations expressed the view that the future of space activities largely depended on space debris mitigation and urged those countries that had not yet done so to implement the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space.
- 110. Some delegations expressed the view that the mitigation of space debris and the limitation of the creation of additional space debris should be among the priorities of the work of the Committee and its subsidiary bodies.
- 111. Some delegations expressed the view that the issue of space debris should be addressed in a manner that would not jeopardize the development of the space capabilities of developing countries.
- 112. Some delegations expressed the view that voluntary mitigation measures should be encouraged and that efforts should be intensified to activate national and international mechanisms to reduce the creation and proliferation of space debris.
- 113. Some delegations called on the Scientific and Technical Subcommittee to continue its thorough consideration of the issue of space debris mitigation, in particular by paying greater attention to the problem of debris coming from platforms with nuclear power sources in outer space and to collisions of space objects with space debris and their derivatives, as well as to ways of improving the technology and the collaborative networks for monitoring space debris.
- 114. Some delegations expressed the view that it would be beneficial for Member States to exchange information on measures to reduce the creation and proliferation of space debris; on the collection, sharing and dissemination of data on space objects; and on re-entry notifications.
- 115. Some delegations expressed the view that the Space Debris Mitigation Guidelines of the Committee should be further developed.
- 116. Some delegations expressed the view that the Scientific and Technical Subcommittee and the Legal Subcommittee should cooperate in developing legally binding rules relating to space debris.
- 117. The view was expressed that, during the removal of space debris, no unilateral action should be taken by any State with respect to a space object of another State unless a consultation and agreement with regard to that action had been reached with the State of registry of the space object in question.
- 118. The view was expressed that the Committee should establish means to limit and eliminate space debris, that more consideration should be given to the issue of space debris in geostationary orbit and low-Earth orbits, and that any tests used for satellite destruction should be prohibited.

4. Space-system-based disaster management support

- 119. The Committee took note of the discussion of the Subcommittee under the item on space-system-based disaster management support, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 96-112 and annex I, para. 8).
- 120. The Committee had before it a conference room paper on planned contributions of UN-SPIDER regional support offices to the implementation of the programme activities planned for the period 2012-2013 (A/AC.105/2012/CRP.18).
- 121. The Committee also had before it a working paper prepared for the fiftieth session of the Subcommittee submitted by the Russian Federation, entitled "Project to create the International Global Monitoring Aerospace System as a forward-looking new initiative in predicting and mitigating the consequences of natural and man-made disasters" (A/AC.105/C.1/L.323).
- 122. The Committee noted with satisfaction the progress reflected in the reports on the activities carried out under the UN-SPIDER programme in 2011 and noted that the programme would, in the biennium 2012-2013, be implementing the revised workplan contained in conference room paper A/AC.105/C.1/2012/CRP.22.
- 123. The Committee noted with appreciation the voluntary contributions made by Member States, including cash contributions from Austria, China and Germany for the activities of the UN-SPIDER programme in 2011. The Committee noted with appreciation that the programme had also benefited from the services of associate experts and experts provided by Austria, China, Germany and Turkey.
- 124. The Committee noted with satisfaction that the Office for Outer Space Affairs had, to date, signed cooperation agreements for the establishment of the 12 UN-SPIDER regional support offices noted in the report of the Scientific and Technical Subcommittee at its forty-ninth session (A/AC.105/1001, para. 109) and that the Governments of Argentina, Indonesia, the Russian Federation, South Africa and Turkey had each offered to host a UN-SPIDER regional support office.
- 125. The Committee noted with appreciation that space-based information was being provided to support disaster management, particularly emergency response activities, through several mechanisms, such as the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also called the International Charter on Space and Major Disasters), the Sentinel Asia project and the GMES Services and Applications for Emergency Response (SAFER) and GMES Initial Operations (GIO) initiatives in Europe, as well as COSPAS-SARSAT.
- 126. The Committee welcomed that the Korea Aerospace Research Institute had joined the International Charter on Space and Major Disasters in July 2011 and that it was providing satellite images to support Charter activities.
- 127. The Committee noted that the information and services being delivered under the UN-SPIDER programme were making a valuable contribution to mitigating the consequences of natural disasters and called on Member States to continue supporting the programme.
- 128. The view was expressed that making available a greater number of images, in addition to increased timeliness, would improve the usefulness of space-based solutions for disaster-affected countries.

5. Recent developments in global navigation satellite systems

- 129. The Committee took note of the discussion of the Subcommittee under the item on recent developments in global navigation satellite systems, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 113-135).
- 130. The Committee noted with appreciation that ICG, which had emerged from the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III) and had been formally established in 2005, continued to make significant progress towards encouraging compatibility and interoperability among global and regional space-based positioning, navigation and timing systems and promoting the use of GNSS and their integration into infrastructures, particularly in developing countries.
- 131. The Committee expressed its appreciation for the work undertaken by the Office for Outer Space Affairs in assisting with the planning and organization of the meetings of ICG and for its continued support as executive secretariat for ICG and its Providers' Forum.
- 132. The Committee noted with appreciation that the sixth meeting of ICG and the seventh meeting of its Providers' Forum had been held in Tokyo from 5 to 9 September 2011, organized by the Government of Japan, and that the seventh meeting of ICG would be held in Beijing from 5 to 9 November 2012. The Committee also noted that the United Arab Emirates would host the eighth meeting of ICG in 2013.
- 133. The Committee noted that the United Nations International Meeting on the Applications of Global Navigation Satellite Systems, co-sponsored by the United States, had been hosted by the Office for Outer Space Affairs and held in Vienna from 12 to 16 December 2011 to mark 10 years of achievement of the United Nations in the area of GNSS.
- 134. The Committee noted with appreciation the achievements of providers and users of positioning, navigation and timing services in promoting GNSS, as reflected in the publication entitled "10 years of achievement of the United Nations on Global Navigation Satellite Systems" (ST/SPACE/55).
- 135. The Committee noted the growing attention given by the international community to the importance of global navigation satellite systems and the progress in the field of GNSS technology and applications.
- 136. The Committee noted that China's Beidou satellite navigation system had started providing regional services.
- 137. The Committee noted the official start of operations of the first pan-European navigation satellite programme, the European Geostationary Navigation Overlay Service (EGNOS), on 1 October 2009. EGNOS was a precursor of the Galileo satellite navigation system of the European Union, as part of which the first two Galileo in-orbit validation satellites had been successfully launched on 21 October 2011.
- 138. The Committee noted that India was planning to launch the first satellite of the Indian Regional Navigation Satellite System.

- 139. The Committee took note of the full deployment by the Russian Federation of the Global Navigation Satellite System (GLONASS), which currently comprised 31 spacecraft. The Committee also noted that global accessibility of the GLONASS navigation field had reached 100 per cent, and that services had been provided for the socioeconomic and innovative development of the regions of the Russian Federation as well as for international cooperation.
- 140. The Committee noted that the Youth for Global Navigation Satellite Systems Group of SGAC had continued its outreach activities on the importance of GNSS systems, including the publication of a brochure entitled "Global navigation satellite systems (GNSS) and youth".

6. Use of nuclear power sources in outer space

- 141. The Committee took note of the discussion of the Subcommittee under the item on the use of nuclear power sources in outer space, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 136-151).
- 142. The Committee endorsed the decisions and recommendations of the Subcommittee and the Working Group on the Use of Nuclear Power Sources in Outer Space, reconvened under the chairmanship of Sam A. Harbison (United Kingdom) (A/AC.105/1001, para. 151 and annex II, paras. 13-14).
- 143. The Committee noted with satisfaction the work of the Working Group under its multi-year workplan, in particular the success of the workshops held during the sessions of the Subcommittee in 2011 and 2012 at which member States, inter alia, had had an opportunity to be updated on the progress of implementation of the Safety Framework for Nuclear Power Source Applications in Outer Space by States and intergovernmental organizations.
- 144. Some delegations expressed concern that during the workshops on the matter held in the sessions on the Scientific and Technical Subcommittee, the view had been expressed that the future of space activities depended on the use of nuclear power sources, placing special emphasis on the use of such sources in terrestrial orbits. In that context, those delegations were of the view that the Sun was a source of energy that could effectively serve present and future needs of humankind in the areas of satellite applications, such as Earth observation, telecommunications, tele-health and tele-education.
- 145. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in the regulatory process associated with the use of nuclear power sources in outer space and that the matter concerned all humanity. Those delegations were of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial, not detrimental, to humanity.
- 146. Some delegations expressed the view that, in order to ensure the safe use of nuclear power sources, it was important for space actors with proven capabilities in the field to make available to other States their know-how and information on measures taken to ensure the safety of objects using nuclear power sources.

- 147. Some delegations expressed the view that the use of nuclear power sources in outer space should be as limited as possible and that comprehensive and transparent information on measures taken to ensure safety should be provided to other States.
- 148. Some delegations expressed the view that more consideration should be given to the use of nuclear power sources in terrestrial orbits in order to address the problem of potential collisions of nuclear power source objects in orbit, as well as to their accidental re-entry into the Earth's atmosphere. Those delegations were of the view that more attention should be given to the matter through adequate strategies, long-term planning and regulations, including the Safety Framework for Nuclear Power Source Applications in Outer Space.

7. Near-Earth objects

- 149. The Committee took note of the discussion of the Subcommittee under the item on near-Earth objects, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 152-169 and annex III).
- 150. The Committee endorsed the recommendations of the Subcommittee and its Working Group on Near-Earth Objects, which had been convened under the chairmanship of Sergio Camacho (Mexico) (A/AC.105/1001, para. 169 and annex III).
- 151. The Committee noted that, on the margins of its fifty-fifth session, the Action Team on Near-Earth Objects had held four meetings to continue its work on the draft recommendations for an international response to the near-Earth object impact threat. The draft recommendations (as contained in document A/AC.105/C.1/L.317) were grouped under the following subject areas: information, analysis and warning; mission campaign planning and operations; and mission oversight and authorization.
- 152. The Committee also noted that, on the margins of its fifty-fifth session, the second meeting of the representatives of space agencies had been held to discuss draft terms of reference for a mission planning and operations group, the establishment of which had been part of the draft recommendations made by the Action Team (A/AC.105/C.1/L.317). The Committee further noted that intersessional work on those draft terms of reference would continue in 2012 and the beginning of 2013 with a view to finalizing them by the fiftieth session of the Scientific and Technical Subcommittee.
- 153. The Committee noted that a number of international meetings had been held in 2011 to discuss international collaborative efforts on near-Earth objects, such as the second IAA Planetary Defense Conference, on the theme "From threat to action", co-organized by the Romanian Space Agency and held in Bucharest from 9 to 12 May; the Workshop on International Recommendations for Near-Earth Object (NEO) Threat Mitigation, organized by the Action Team on Near-Earth Objects and held in Pasadena, United States, on 25 and 26 August, and the Near-Earth Object Media/Risk Communications Workshop organized by the Action Team and the Secure World Foundation and held in Boulder, United States, on 14 and 15 November 2011.
- 154. The Committee also noted that a workshop to further analyse the potentially hazardous asteroid known as 2011 AG5 had been organized by NASA and held on 29 May 2012, following the proposal by the Action Team on Near-Earth Objects,

and that the Action Team had been informed about current knowledge about 2011 AG5.

155. The Committee noted that the Action Team would continue its work by co-organizing a workshop, in collaboration with NASA, in October 2012, to address the functions that should be carried out by the Information, Analysis and Warning Network. The Committee also noted that a special session on near-Earth object impact hazards, current activities and future plans, organized by the International Astronomical Union Working Group on near-Earth Objects, would be held during the Union's General Assembly to be held in Beijing from 20 to 31 August 2012. The Committee also noted that members of the Action Team were involved in the organization of the 2013 IAA Planetary Defense Conference, to be held from 15 to 19 April in Flagstaff, United States.

156. Some delegations expressed the view that early detection and precision tracking were crucial for the management of threats posed by near-Earth objects, and that any measures undertaken to mitigate those threats required coordinated international efforts.

157. The view was expressed that progress had been made in expanding the global network for the detection and characterization of near-Earth objects and in the efforts of the Action Team on Near-Earth Objects to develop draft terms of reference for an independent mission planning and operations group. That delegation was of the view that, although more work was to be done in that area, the key to any successful response to the near-Earth object impact threat was early detection. Cooperation in further developing detection capabilities and information-sharing networks on near-Earth objects was therefore of the utmost importance.

158. The Committee noted that the SGAC Near-Earth Object Working Group had successfully continued its technical paper competition entitled "Move an asteroid", which had been held since 2008 for students and young professionals to address the challenges of NEO threat mitigation, and that it had started the "Find an asteroid competition" to encourage teams all over the world to search for asteroids.

159. The Committee noted that the Action Team on Near-Earth Objects had been tasked with finalizing the draft recommendations for an international response to the near-Earth object impact threat by the fiftieth session of the Scientific and Technical Subcommittee, to be held in 2013, and to present them to the Committee at its fifty-sixth session.

8. 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, without prejudice to the role of the International Telecommunication Union

160. The Committee took note of the discussion of the Subcommittee under the item on the 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, without prejudice to the role of the International Telecommunication Union, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 211-221).

- 161. The Committee noted the information on the examination of the geostationary orbit submitted by the delegation of the Czech Republic, contained in conference room paper A/AC.105/2012/CRP.17.
- 162. The view was expressed that, with regard to the information contained in the above-mentioned conference room paper, a comparison of the nominal positions of radio space stations, known as "space networks" in the terminology of ITU, with actual positions of satellites had shown that a certain percentage of space networks had no spacecraft at those positions and thus were not able to operate at all, and that if the unused radio space stations were suspended or the relevant proposals deleted, the overcrowding in the geostationary orbit would be lessened, which would benefit all users of that orbit.
- 163. Some delegations reiterated the view that the geostationary orbit was a limited natural resource at risk of becoming saturated, which threatened the sustainability of outer space activities. Those delegations were of the view that the exploitation of the geostationary orbit should, with the participation and cooperation of ITU, be rationalized and made available to all States, 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.
- 164. Some delegations were of the view that the geostationary orbit offered unique potential for the implementation of social programmes, educational projects and medical assistance. Those delegations therefore considered that the item on the geostationary orbit should remain on the agenda of the Subcommittee for further discussion through working groups, intergovernmental panels or task forces, for the purpose of continuing to analyse the scientific and technical characteristics of the orbit.

9. International Space Weather Initiative

- 165. The Committee took note of the discussion of the Subcommittee under the item on the International Space Weather Initiative, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 170-182).
- 166. The Committee noted the conclusion of the item entitled "International Space Weather Initiative" and agreed that the Scientific and Technical Subcommittee should include on its agenda, starting from its fiftieth session, a new regular item entitled "Space weather", in order to allow member States of the Committee and international organizations having permanent observer status with the Committee to exchange views on national, regional and international activities related to space weather science and outreach, as well as the societal impacts of space weather, with a view to promoting greater international cooperation in that area.
- 167. The Committee noted the importance of continuing international efforts to coordinate the global monitoring of space weather using space- and ground-based assets, assist in consolidating common knowledge and develop essential forecast

capabilities to improve the safety of space-based assets and to increase understanding and enhance predictions of space weather events.

168. The Committee noted with appreciation the establishment of the International Centre for Space Weather Science and Education at Kyushu University, Japan, one of the aims of which was to promote science studies and education in the area of space environment.

169. The Committee noted with appreciation the workshop, organized by the United States and held on the margins of the fifty-fifth session of the Committee, which focused on the societal impacts of space weather.

170. The Committee welcomed the upcoming International Space Weather Initiative and Magnetic Data Acquisition System (MAGDAS) School on Space Science to be held in Bandung, Indonesia, from 17 to 26 September 2012 and hosted by Indonesia in collaboration with the International Space Weather Initiative, SCOSTEP and Kyushu University; the 19th United Nations/ESA/Austria Symposium on Data Analysis and Image Processing for Space Applications and Sustainable Development on the topic "Space Weather", scheduled to take place in Graz, Austria, from 18 to 21 September 2012; and the United Nations/Ecuador Workshop on the International Space Weather Initiative, scheduled to take place in Quito from 8 to 12 October 2012, to be hosted by the Quito Astronomical Observatory on behalf of the Government of Ecuador.

10. Long-term sustainability of outer space activities

171. The Committee took note of the discussion of the Subcommittee under the item on the long-term sustainability of outer space activities, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 183-210).

172. The Committee endorsed the recommendations and decisions on the item made by the Scientific and Technical Subcommittee and the Working Group on the Long-term Sustainability of Outer Space Activities, reconvened under the chairmanship of Peter Martinez (South Africa) (A/AC.105/1001, para. 210 and annex IV, para. 16).

173. The Committee noted that the working paper on the long-term sustainability of activities in outer space submitted by the Russian Federation (A/AC.105/2012/CRP.19) would be made available in all official languages of the United Nations as document A/AC.105/L.285 following the conclusion of the session.

174. The Committee had before it the working papers prepared for the fiftieth session of the Subcommittee by expert groups A-D of the Working Group (A/AC.105/C.1/L.324-327), which had been made available for comments by member States and permanent observers of the Committee, as recommended by the Working Group at the forty-ninth session of the Subcommittee (A/AC.105/1001, annex IV, para. 16 (i)).

175. The Committee also had before it a working paper prepared for the fiftieth session of the Subcommittee, submitted by the Russian Federation and Ukraine, entitled "Technology safeguards associated with cooperation in the field of the exploration and use of outer space for peaceful purposes and in the development and operation of space rockets and rocket equipment" (A/AC.105/C.1/L.322).

- 176. The Committee noted that expert groups A-D of the Working Group were meeting on the margins of the current session of the Committee to make progress in their work, in accordance with the terms of reference and methods of work of the Working Group, and as agreed by the Working Group at the forty-ninth session of the Subcommittee (A/AC.105/1001, annex IV, para. 16 (a)).
- 177. On 11 June, the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities informed the Committee about the progress made by the expert groups and on the planned programme of work.
- 178. The Committee noted with satisfaction the nominations of Enrique Pacheco Cabrera (Mexico) as co-chair for expert group A and Ian Mann (Canada) as co-chair for expert group C, which would further enhance the efforts of those expert groups to achieve the goals set out in the terms of reference and methods of work and subsequently reaffirmed by the Working Group.
- 179. The Committee recalled that, under the workplan for 2013, a workshop would be held in conjunction with the fiftieth session of the Scientific and Technical Subcommittee and that States members of the Committee would be invited to include in their delegations representatives of national non-governmental organizations and private sector entities having experience in space activities, so as to collect information on their experiences and practices in the conduct of sustainable space activities. The Committee also noted that a joint meeting of the expert groups would be held on the margins of the fiftieth session of the Subcommittee in preparation for the workshop.
- 180. Some delegations expressed the view that special attention should be paid to the risks posed by space debris because of the pressing need to advance international cooperation on that major priority issue.
- 181. Some delegations expressed the view that it was important to avoid duplication of efforts and to conduct a gap analysis to identify issues affecting the long-term sustainability of outer space activities that were not currently being addressed in any other forum.
- 182. The view was expressed that discussions on the long-term sustainability of outer space activities were also promoting the contribution of space activities to sustainable development on Earth, and that developing countries should actively participate in the work of the Working Group.
- 183. Some delegations expressed the view that the Legal Subcommittee should closely follow the discussions under the item on the long-term sustainability of outer space activities, since those discussions had already exceeded the scope of the topic of space science and technology.
- 184. The view was expressed that the work to be conducted by the group of governmental experts on outer space transparency and confidence-building measures, which was due to commence its work in July 2012, could contribute to the work of the Working Group, taking into consideration the two groups' shared goals of promoting stability, safety and security in the space environment.
- 185. The view was expressed that the complex nature of the issues at hand necessitated the allotment of sufficient time for deliberations, so that measured

decisions aiming at long-term solutions could be taken and that the envisioned schedule for the work of the Working Group should be revisited, as necessary.

186. The view was expressed that the meetings of the expert groups should be carefully prepared and that documents for those meetings should be made available to the experts well in advance, in order to allow sufficient time for coordination at the national level prior to the meetings, thus enabling active participation by all and supporting a productive outcome.

187. The view was expressed that decisions on the topics under consideration by the Working Group should not be adopted in meetings held in parallel with plenary meetings of the Subcommittee, because such decisions were the direct responsibility of States and should therefore be taken in an intergovernmental framework. The view was also expressed that the expert groups should be subject to the adopted methods of work of the Working Group, in order not to privilege commercial interests to the detriment of the social interests of humanity.

188. The view was expressed that having more information on the structure of the reports of the expert groups, including envisioned results, would facilitate the production of a full and harmonized Working Group report.

11. Draft provisional agenda for the fiftieth session of the Scientific and Technical Subcommittee

189. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for the fiftieth session of the Scientific and Technical Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/1001, paras. 222-230 and annex I, paras. 9-10).

190. On the basis of the deliberations of the Scientific and Technical Subcommittee at its forty-ninth session, the Committee agreed that the following substantive items should be considered by the Subcommittee at its fiftieth session:

- 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. Space weather.
- 9. Items to be considered under workplans:
 - (a) Use of nuclear power sources in outer space;

(Work for 2013 as reflected in the multi-year workplan in paragraphs 8 and 10 of annex II to the report of the Scientific and Technical Subcommittee on its forty-seventh session (A/AC.105/958))

(b) Near-Earth objects;

(Work for 2013 as reflected in the multi-year workplan in paragraph 9 of annex III to the report of the Scientific and Technical Subcommittee on its forty-eighth session (A/AC.105/987))

(c) Long-term sustainability of outer space activities.

(Work for 2013 as reflected in paragraph 23 of the terms of reference and methods of work of the Working Group on the Long-Term Sustainability of Outer Space Activities, contained in annex II to the report of the Committee on its fifty-fourth session (A/66/20))

- 10. 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, without prejudice to the role of the International Telecommunication Union.
- 11. Draft provisional agenda for the fifty-first 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.
- 191. The Committee agreed that the Working Group of the Whole, the Working Group on the Use of Nuclear Power Sources in Outer Space, the Working Group on Near-Earth Objects and the Working Group on the Long-term Sustainability of Outer Space Activities should be reconvened at the fiftieth session of the Scientific and Technical Subcommittee.
- 192. The Committee endorsed the recommendation of the Working Group of the Whole that further consideration could be given to organizational matters in the Working Group during the fiftieth session of the Subcommittee.
- 193. The Committee recalled its agreement reached at its fifty-third session that two hours of each session of the Subcommittee from 2011 to 2013 should be available for holding workshops under the workplan of the Working Group on the Use of Nuclear Power Sources in Outer Space on the item "Use of nuclear power sources in outer space" (A/AC.105/958, annex II, paras. 8 and 10).
- 194. The Committee endorsed the recommendation of the Working Group on the Use of Nuclear Power Sources in Outer Space that its work in 2013 should be conducted under the arrangements established in its workplan for 2014, in the event that no presentations were offered by member States and intergovernmental organizations for the workshop referred to in paragraph 193 above.

195. The Committee agreed that the topic for the symposium to be organized in 2012 by IAF, in accordance with the agreement reached by the Subcommittee at its forty-fourth session, in 2007 (A/AC.105/890, annex I, para. 24), should be "Overview of studies and concepts for active orbital debris removal".

D. Report of the Legal Subcommittee on its fifty-first session

196. The Committee took note with appreciation of the report of the Legal Subcommittee on its fifty-first session (A/AC.105/1003), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 66/71.

197. The Committee expressed its appreciation to Tare Charles Brisibe (Nigeria) for his able leadership during the fifty-first session of the Subcommittee.

198. The representatives of Algeria, Austria, Canada, China, the Czech Republic, Germany, Indonesia, Japan, Saudi Arabia, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under the item. A statement was also made under the item by the representative of Ecuador on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States and the representative of South Africa on behalf of the Group of African States.

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

199. The Committee took note of the discussion of the Subcommittee under the item on the status and application of the five United Nations treaties on outer space, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 34-55).

200. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, which had been reconvened under the chairmanship of Jean-François Mayence (Belgium) (A/AC.105/1003, para. 36 and annex I, paras. 10 and 11).

- 201. Some delegations expressed the view that the Committee should review, update and modify the five United Nations treaties on outer space for the purpose of strengthening the guiding principles of outer space activities and the responsibility of governmental and non-governmental actors in carrying out space activities.
- 202. Some delegations expressed the view that the existing legal framework should be continuously developed, including through non-binding agreements.
- 203. Some delegations expressed the view that the United Nations treaties on outer space constituted a solid legal structure that was crucial for supporting the increasing scale of space activities and for strengthening international cooperation on the peaceful uses of outer space. Those delegations welcomed further adherence to the treaties and hoped that those States that had not yet ratified or acceded to the treaties would consider becoming parties to them.

204. Some delegations expressed the view that, given the rapid increase in space activities and the emergence of new space actors, more coordination and synergy

between the two Subcommittees were needed in order to promote the understanding, acceptance and application of the existing United Nations treaties and to strengthen the responsibility of States in carrying out space activities.

205. The view was expressed that it was necessary to identify shortcomings in the implementation of the existing treaties and to remedy obstacles through cooperation and, if necessary, the provision of technical assistance.

206. Some delegations expressed the view that issues related to the transfer of ownership of objects in outer space, the relevance of soft law in the interpretation of responsibilities, the conceptual discussion of the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies,³ and the considerations of the notion of fault, as contained in the questionnaire prepared by the Chair of the Working Group, deserved particular attention by States.

207. The view was expressed that the Moon Agreement clearly established the interest of all States in the peaceful exploration and use of outer space, based on the concepts of equality and cooperation, and that discussions on the Moon Agreement should not be conducted from the viewpoint of commercial interests.

208. The view was expressed that international law regulating the conduct of space activities should not restrict access to space technologies for States, especially developing countries, wishing to develop their own space capacities in a sustainable manner.

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

209. The Committee took note of the discussion of the Subcommittee under the item on information on the activities of international intergovernmental and non-governmental organizations relating to space law, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 56-64).

210. The Committee noted the important role of international intergovernmental and non-governmental organizations and their contribution to its endeavours to promote the development of space law and endorsed the recommendation of the Subcommittee that such organizations should again be invited to report to the Subcommittee at its fifty-second session on their activities relating to space law.

211. The Committee noted that the Optional Rules for Arbitration of Disputes Relating to Outer Space Activities had been adopted by the Administrative Council of the Permanent Court of Arbitration on 6 December 2011, and welcomed the agreement of the Subcommittee to invite the Court to provide information to the Subcommittee at its future sessions on the Optional Rules.

3. Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

212. The Committee took note of the discussion of the Subcommittee under the item on matters relating to the definition and delimitation of outer space and the

³ United Nations, *Treaty Series*, vol. 1363, No. 23002.

character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 65-87).

- 213. The Committee endorsed the recommendations of the Subcommittee and its Working Group on the Definition and Delimitation of Outer Space, reconvened under the chairmanship of José Monserrat Filho (Brazil) (A/AC.105/1003, para. 68 and annex II, paras. 10-11).
- 214. Some delegations expressed the view that the definition and delimitation of outer space would prevent and reduce possible disputes related to space activities among States and should be considered in an intergovernmental framework, in particular within the Legal Subcommittee, taking into consideration scientific and technological progress.
- 215. Some delegations expressed the view that the geostationary orbit a limited natural resource clearly in danger of saturation must be used rationally and should be made available to all States, irrespective of their current technical capacities. That would give States the possibility of access to the orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries, as well as the geographical position of certain countries, and taking into account the processes of ITU and relevant norms and decisions of the United Nations.
- 216. Some delegations expressed the view that the use of the geostationary orbit should be streamlined, giving priority to long-term activities and those that contributed to the attainment of the Millennium Development Goals, while taking into account the conditions of equality of all States, irrespective of their current space capacities.
- 217. Some delegations expressed the view that the utilization by States of the geostationary orbit on the basis of "first come, first served" was unacceptable and that the Subcommittee should therefore develop a legal regime ensuring that States had equitable access to orbital positions, in accordance with the principles of peaceful use and non-appropriation of outer space.

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

- 218. The Committee took note of the discussion of the Subcommittee under the item 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.105/1003, paras. 88-104).
- 219. The Committee endorsed the recommendation of the Subcommittee on the item (A/AC.105/1003, para. 104).
- 220. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in regulatory activity associated with the use of nuclear power sources in outer space and that the matter concerned all of humanity. Those delegations were also of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in

outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial and not detrimental to humanity.

- 221. Some delegations stressed that more attention should be paid to the legal issues associated with the use of satellite platforms with nuclear power sources in Earth orbits, in the light of reported failures and collisions that posed a high risk to humanity.
- 222. Some delegations expressed the view that there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote greater understanding, acceptance and implementation of the legal instruments and the development of new legal instruments related to the use of nuclear power sources in outer space.
- 223. The view was expressed that international legal instruments related to the use of nuclear power sources in outer space should be updated in view of the increasing number of actors involved in outer space activities.
- 224. Some delegations called on the Legal Subcommittee to undertake a review of the Safety Framework for Nuclear Power Source Applications in Outer Space and to promote binding standards with a view to ensuring that any activity conducted in outer space was governed by the principles of preservation of life and maintenance of peace.

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

- 225. The Committee took note of the discussion of the Subcommittee under the item on the examination and review of the developments concerning the draft protocol on matters specific to space assets to the Convention on International Interests in Mobile Equipment, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 105-116).
- 226. The Committee noted with satisfaction that the diplomatic Conference for the adoption of the draft protocol to the Convention on International Interests in Mobile Equipment on matters specific to space assets, held in Berlin from 27 February to 9 March 2012, had adopted the Protocol and opened it for signature on 9 March. The Committee took note of the information on the Conference and the Protocol provided in paragraph 107 (b)-(e) of the report of the Subcommittee.
- 227. The Committee expressed its congratulations to the International Institute for the Unification of Private Law (Unidroit) for the successful conclusion of its years of work with respect to the development, negotiation and adoption of the Protocol. The Subcommittee commended the Government of Germany for its organization of the Conference and facilitation of the adoption of the Protocol.
- 228. The Committee noted that the observer for ITU at the Conference had communicated the interest of the Secretary-General of ITU in that organization considering becoming the supervisory authority and that that interest was subject to the matter being considered by the governing bodies of ITU, namely, the ITU Council and the ITU Plenipotentiary Conference, and was without prejudice to the decision to be taken by them in that regard. The Subcommittee also noted that the

ITU Council would hold its next session in July 2012 and that the next ITU Plenipotentiary Conference would be held in 2014.

229. Some delegations expressed the view that the Protocol on Matters specific to Space Assets, being the first space law treaty adopted in more than three decades and the first international private law agreement in the field of commercial space activities, was important for the completeness of the international regulation of space activities and would establish an optional international regime for commercial space activities.

6. Capacity-building in space law

- 230. The Committee took note of the discussion of the Subcommittee under the item on capacity-building in space law, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 117-135).
- 231. The Committee endorsed the recommendations of the Subcommittee on the agenda item (A/AC.105/1003, paras. 134 and 135).
- 232. The Committee agreed that research, training and education in space law were of paramount importance to national, regional and international efforts to further develop space activities and to increase knowledge of the legal framework within which space activities were carried out.
- 233. The Committee noted with appreciation that the Government of Argentina and the National Commission on Space Activities (CONAE) of Argentina, together with the Office for Outer Space Affairs, planned to hold the eighth United Nations workshop on space law in November 2012. The Committee further noted with appreciation that ESA was a co-sponsor of the workshop.
- 234. The Committee noted that the exchange of views on national and international efforts to promote a wider appreciation of space law and endeavours such as the annual workshops on space law and the development of the curriculum on space law played a vital role in building capacity in that area.

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

- 235. The Committee took note of the discussion of the Subcommittee under the item on the general exchange of information on national mechanisms relating to space debris mitigation measures, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 136-158).
- 236. The Committee endorsed the recommendation of the Subcommittee on the item (A/AC.105/1003, para. 158).
- 237. The Committee expressed concern over the increasing amount of space debris and noted with satisfaction that the endorsement by the General Assembly, in its resolution 62/217, of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space was a key step in providing all spacefaring nations with guidance on how to mitigate the problem of space debris, and encouraged Member States to consider voluntary implementation of the Guidelines.

- 238. The Committee noted with satisfaction that some States had taken measures to enforce the implementation of internationally recognized guidelines and standards related to space debris through relevant provisions in their national legislation.
- 239. Some delegations expressed the view that extending the scope of the agenda item to include the general exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee, would be conducive to more in-depth discussion on legal issues related to space debris.
- 240. Some delegations expressed the view that the issue of mitigation of space debris and limitation of its proliferation should continue to be treated as a priority in the work of the Committee and its subsidiary bodies.
- 241. Some delegations expressed the view that there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote greater understanding, acceptance and implementation of the legal instruments and the development of new legal instruments related to the issue of space debris.
- 242. Some delegations expressed the view that the Subcommittee should include on its agenda an item for the review of the legal aspects of the Space Debris Mitigation Guidelines of the Committee, with a view to transforming the Guidelines into a set of principles to be adopted by the General Assembly.
- 243. The view was expressed that developing the Space Debris Mitigation Guidelines of the Committee into a legally binding instrument was not warranted in view of the absence of legal definitions of fundamental concepts related to outer space and the fact that the Guidelines neither contained any technical norms or specifications related to space debris nor covered activities such as space debris removal. That delegation noted that it was expected that appropriate, optimal ways and means of the elaboration of the technical details of the existing Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space were under development by IADC and that relevant aspects of the space debris removal issue would be considered within the framework of the Scientific and Technical Subcommittee under its item on the long-term sustainability of outer space activities.
- 244. The view was expressed that, in order to address the challenge of mitigating space debris resulting from the intensification of space activities, the Legal Subcommittee should explore the possibility of developing appropriate new rules, including principles, guidelines and other non-binding frameworks.
- 245. The view was expressed that there was a need to develop better mechanisms for sharing information on national and regional best practices to reduce the creation and proliferation of space debris.

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

246. The Committee took note of the discussion of the Legal Subcommittee under the item on the general exchange of information on national legislation relevant to the peaceful exploration and use of outer space and its Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space,

reconvened under the chairmanship of Irmgard Marboe (Austria), as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 159-172 and annex III).

- 247. The Committee endorsed the decisions of the Subcommittee as contained in A/AC.105/1003, paras. 163-164 and 170.
- 248. The Committee noted with satisfaction that the discussions of the Working Group had enabled States to gain an understanding of existing national regulatory frameworks, share experiences on national practices and exchange information on national legal frameworks, for the benefit of States in the process of enacting legislation on national space activities.
- 249. The Committee expressed its deep appreciation to the Chair of the Working Group for her dedication and professionalism in leading the Working Group. The Subcommittee agreed that the report of the Working Group on National Legislation Relevant to the Peaceful Exploration and Use of Outer Space on the work conducted under its multi-year workplan (A/AC.105/C.2/101) constituted an important source of information for States developing national space-related regulatory frameworks.
- 250. The Committee agreed that the recommendations developed by the Working Group and endorsed by the Legal Subcommittee on national legislation relevant to the peaceful exploration and use of outer space (A/AC.105/1003, annex III, appendix) constituted a sound basis for a separate draft General Assembly resolution or an annex to the draft resolution on international cooperation in the peaceful uses of outer space to be submitted to the Assembly.
- 251. The Committee took note of the revised text of the recommendations on national space legislation relevant to the peaceful exploration and use of outer space reflecting revisions by member States during its present session, contained in document A/AC.105/2012/CRP.21, and noted that Irmgard Marboe would continue to consult with member States on the text of the recommendations in the intersessional period.
- 252. The Committee agreed that the text, as revised on the basis of those consultations, should be submitted, in the six official languages of the United Nations, to the Subcommittee at its fifty-second session under the regular item entitled "National legislation relevant to the peaceful exploration and use of outer space", for agreement, and that the Subcommittee should also consider the form in which the agreed text was to be submitted to the General Assembly for adoption at its sixty-eighth session.

9. Draft provisional agenda for the fifty-second session of the Legal Subcommittee

- 253. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for the fifty-second session of the Legal Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/1003, paras. 175-194).
- 254. On the basis of the deliberations of the Legal Subcommittee at its fifty-first session, the Committee agreed that the following substantive items should be considered by the Subcommittee at its fifty-second session:
 - 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 intergovernmental and non-governmental 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.
- 5. National legislation relevant to the peaceful exploration and use of outer space.
- 6. Single issues/items for discussion:
 - (a) Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space;
 - (b) Examination and review of the developments concerning the Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Space Assets;
 - (c) Capacity-building in space law;
 - (d) General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee.
- 7. Items considered under workplans: review of international mechanisms for cooperation in the peaceful exploration and use of outer space.
 - (Work for 2013 as reflected in the multi-year workplan in paragraph 179 of the report of the Legal Subcommittee on its fifty-first session (A/AC.105/1003))
- 8. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-third session.
- 255. The Committee agreed that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space and the Working Group on Matters Relating to the Definition and Delimitation of Outer Space should be reconvened at the fifty-second session of the Legal Subcommittee.
- 256. The Committee also agreed that the Subcommittee should review, at its fifty-second session, the need to extend beyond that session the mandate of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.
- 257. The Committee further agreed that a working group should be established for the period 2014-2017 in accordance with the workplan under the item on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space.

- 258. The Committee agreed that the International Institute of Space Law and the European Centre for Space Law should be invited to organize a symposium on space law at the fifty-second session of the Subcommittee.
- 259. The view was expressed that the proposal made by the Czech Republic for an item entitled "Review of the legal aspects of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space with a view to transforming the Guidelines into a set of principles to be adopted by the General Assembly", for inclusion on the agenda of the Subcommittee, would provide an opportunity for the elaboration of an international instrument on space debris in a satisfactory form for the present and near future, and that such work would require close cooperation with the Scientific and Technical Subcommittee.
- 260. The view was expressed that an item on the regulation of the dissemination of Earth observation satellite images through the World Wide Web should be included on the agenda of the Subcommittee.

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

- 261. The Committee considered the agenda item entitled "Spin-off benefits of space technology: review of current status", in accordance with General Assembly resolution 66/71.
- 262. The representatives of Germany, India, Japan, the Russian Federation and the United States made statements under the item.
- 263. The Committee took note of the information provided by States on their national practices regarding spin-offs of space technology that had resulted in the introduction of strategies for the management of regional economic development, as well as useful innovations in numerous scientific and practical areas of civil society, such as medicine, biology, chemistry, astronomy, agriculture, aviation, land transport, firefighting, the protection of nature and energy.
- 264. The Committee agreed that spin-offs of space technology constituted a powerful engine for technological innovation and growth in both the industrial and service sectors and that they could be beneficially applied to achieve social and economic objectives and the development of national communications infrastructure, and be applied in projects aimed at achieving sustainable development.
- 265. The Committee agreed that spin-offs of space technology should be promoted because they fostered innovative technologies, thus advancing economies and contributing to the improvement of the quality of life.
- 266. The Committee noted that Governments had successfully involved the private sector and academia in various projects in the area of spin-offs of space technology.
- 267. The Committee noted that a publication by NASA, *Spinoff 2011*, was available online (http://spinoff.NASA.gov).

F. Space and society

- 268. The Committee considered the agenda item entitled "Space and society", in accordance with General Assembly resolution 66/71.
- 269. The representatives of Austria, Canada, India, Indonesia, Italy, Japan, Nigeria, the Republic of Korea, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under the item. A statement was also made by the observer for EURISY. Representatives of other member States made statements relating to the item during the general exchange of views.
- 270. The Committee heard the following presentations:
- (a) "Establishment of the International Center for Space Weather Science and Education at Kyushu University, Japan", by the representative of Japan;
 - (b) "ASI educational activities", by the representative of Italy;
- (c) "Micro/nanosatellite activities by Japanese Universities and vision towards international contribution", by the representative of Japan.
- 271. The Committee noted the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.
- 272. The Committee noted the ongoing commitment of States and international organizations to promoting space curricula and programmes established by national space and educational organizations for children, young people and the general public and to enhancing educational opportunities using distance-learning technologies such as tele-education and e-learning to promote awareness of the benefits of space science and technology applications for sustainable development.
- 273. The Committee noted the importance of space education in promoting the greater participation of young people in space science and technology by inspiring them to pursue careers in science, technology, engineering and mathematics, thus strengthening national capabilities in those fields.
- 274. The Committee noted the importance of keeping society connected with space activities by disseminating information on space activities among various target groups, including policy- and decision-makers, academics, educators, professionals, young people and industrial and scientific communities, using a variety of outreach tools and platforms, including social media.
- 275. The Committee noted the continued role played by the International Space Station in education and reaching out to educational communities worldwide.
- 276. The Committee noted with satisfaction the large number of outreach activities carried out at the regional level for building capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played by the regional centres for space science and technology education, affiliated to the United Nations, in space-related education.
- 277. The Committee took note of a number of space-related conferences, competitions, exhibitions, symposiums and seminars worldwide connecting

educators and students and providing them with training and educational opportunities.

278. The Committee noted with satisfaction that World Space Week, observed from 4 to 10 October each year pursuant to General Assembly resolution 54/68, continued to raise awareness of outer space activities among young people and the general public through a number of global space-related events and educational opportunities.

G. Space and water

- 279. The Committee considered the agenda item entitled "Space and water", in accordance with General Assembly resolution 66/71.
- 280. The representatives of India, Indonesia, Japan, Saudi Arabia and the United States made statements under the item. A statement was also made by the representative of Ecuador on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States. The observer for the Prince Sultan bin Abdulaziz International Prize for Water also made a statement under the item.
- 281. The Committee heard the following presentations:
- (a) "GCOM-W1 'SHIZUKU' Global Change Observation Mission 1st Water", by the representative of Japan;
- (b) "Safe and reliable navigation of vessels in ocean, coastal and harbour areas based on GNSS and its augmentation systems", by the representative of Germany.
- 282. In the course of the discussions, delegations reviewed national and cooperative water-related activities, giving examples of national programmes and bilateral, regional and international cooperation.
- 283. The Committee noted that water-related issues were becoming some of the most critical environmental problems facing humankind, often entailing political implications, and that conservation and proper utilization of existing water resources were of paramount importance for sustaining life on Earth. In that connection, space-derived data could support policymakers in making informed decisions on water resources management.
- 284. The Committee noted with satisfaction that the General Assembly, in its resolution 58/217, had proclaimed the period 2005-2015 the International Decade for Action, "Water for Life", which reflected the growing awareness of and concern regarding water-related issues.
- 285. The Committee noted the large number of space-borne platforms that addressed water-related issues, and that space-derived data were used extensively in water management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing most water-related issues, including the understanding and observation of global water cycles and unusual climate patterns, the mapping of water courses,

the monitoring and mitigation of the effects of floods, droughts and earthquakes and the improvement of the timeliness and accuracy of forecasts.

286. Some delegations expressed the view that many countries, in particular developing countries, faced difficulties in deriving the necessary data for managing their water resources efficiently and thus reacting to developments in a timely manner, and that the sharing of data on water-related issues and access to space technology should be enhanced through international cooperation.

287. In relation to the special theme of "Space and ecosystem management", which had been included for consideration at its fifty-fifth session, the Committee took note of efforts to use satellite data to generate coastal zone maps and coastal ecosystem habitat maps, as well as studies on the ecological condition of world coral reefs and the impact of the rising sea level on the coastal environment.

288. The Committee noted the launch of the International Water Portal, an interactive database for water organizations, companies and professionals aimed at enhancing international cooperation, communication and access to information on water-related issues. The portal had been created as a follow-up to recommendations of two United Nations international conferences on the use of space technology for water management, organized in cooperation with the Prince Sultan bin Abdulaziz International Prize for Water and held in Saudi Arabia and Argentina in 2008 and 2011, respectively.

289. The Committee also noted that the Third International Conference on the Use of Space Technology for Water Management was scheduled to take place in 2013, to be organized by the United Nations Programme on Space Applications in cooperation with the Prince Sultan bin Abdulaziz International Prize for Water.

H. Space and climate change

290. The Committee considered the agenda item entitled "Space and climate change", in accordance with General Assembly resolution 66/71.

291. The representatives of Australia, Germany, India, Indonesia, Italy, Japan, the Republic of Korea, Nigeria, Pakistan, South Africa, Switzerland and the United States made statements under the item. The representatives of France and Germany made joint statements. During the general exchange of views, statements relating to the item were also made by representatives of other member States and by the representative of Ecuador on behalf of the Group of Latin American and Caribbean States.

292. The Committee heard the following presentations under the item:

- (a) "Japanese satellite challenge to the global issues", by the representative of Japan;
- (b) "Space-based data for climate change and Earth observation in Indonesia", by the representative of Indonesia.
- 293. The Committee noted that climate change had been adversely affecting all regions of the world through a variety of processes such as global warming, reduction in the sea ice coverage and ice masses, sea-level rise, changes in

large-scale current systems in oceans, unstable weather conditions and more intense or extreme weather events such as storms, tropical cyclones, floods and droughts.

294. The Committee also noted that comprehensive, coordinated and sustained systematic observations were necessary for monitoring the different manifestations of climate change and the factors contributing to it, and that space-based observations, complemented by ground-based observations, demonstrated immense potential for observing, and developing fundamental knowledge of, the changing global climate.

295. The Committee noted the efforts made in various countries regarding the deployment of satellites carrying a variety of instruments to monitor the dynamics of the atmosphere, ocean, land surface, biosphere and other components of the climate system. Related observations included, but were not limited to, measurements of and changes in greenhouse gases, aerosols and air quality parameters; land cover and land use, deforestation, including from forest fires, land degradation and desertification; changes in forest biomass and loss of biodiversity; glacial retreat and surges; and sea surface altimetry, precipitation, clouds and global water circulation changes.

296. The Committee took note of cooperative efforts between the space agencies of several countries to launch satellites to monitor the impact of climate change and climate change-related parameters and to share data obtained from space-based platforms to advance understanding of the impact of climate change.

297. The Committee took note of developments under the APRSAF initiative Regional Readiness Review for Key Climate Missions (Climate R3), aimed at increasing national capabilities to use space-derived data for informed decision-making in the fields of the environment and climate change. At the 18th APRSAF meeting, held in Singapore in December 2011, the substantial potential of the Climate R3 initiative to enhance connections between space data suppliers and climate information users and its role in supporting the development of well-informed climate policies in the Asia-Pacific region were recognized.

298. Some delegations described their efforts to support climate change-related activities conducted by GEO, CEOS, the Global Earth Observation System of Systems, the Global Climate Observing System and the Coordination Group for Meteorological Satellites, and to contribute to monitoring the achievement of the aims of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the global climate change mitigation and adaptation actions under the United Nations Framework Convention on Climate Change.

299. Some delegations described their efforts to share climate change data that could be useful for the analysis of climate change and understanding of natural hazards and mitigation of and adaptation to their effects.

300. Some delegations expressed the view that international cooperation in space-based observations of oceans, the atmosphere, land and solar-terrestrial interactions made a fundamental contribution to addressing the challenges posed by climate change.

301. The view was expressed that timely, full and open access to data from civilian satellites as well as the dissemination of tools and knowledge to use that data were

necessary for the development of Earth observation systems for the benefit of humankind

302. The view was expressed that spacefaring nations should provide all developing nations with open access to reliable space-based Earth observation data, which would strengthen global efforts to combat and mitigate the impacts of climate change and adapt to its effects.

I. Use of space technology in the United Nations system

303. The Committee considered the agenda item entitled "Use of space technology in the United Nations system", in accordance with General Assembly resolution 66/71.

304. The representative of Japan made a statement under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

305. The Director of the Office for Outer Space Affairs made a statement informing the Committee about the outcomes of the thirty-second session of the Inter-Agency Meeting on Outer Space Activities, hosted by the World Food Programme and held in Rome from 7 to 9 March 2012. The Committee had before it the report of the Inter-Agency Meeting on Outer Space Activities on that session (A/AC.105/1015).

306. The Committee welcomed with appreciation 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 2012-2013 — the use of space-derived geospatial data for sustainable development (A/AC.105/1014). The Committee noted the recommendations for increasing the use of space-derived geospatial data within the United Nations system, contained in paragraph 86 (a)-(f) of that report.

307. The Committee recalled the note by the Secretariat, prepared in cooperation with the Economic Commission for Africa and in consultation with members of the Inter-Agency Meeting on Outer Space Activities, entitled "Space benefits for Africa: contribution of the United Nations system" (A/AC.105/941), and the special report of the Inter-Agency Meeting entitled "Use of space technology within the United Nations system to address climate change issues" (A/AC.105/991). The Committee noted that the next special report of the Inter-Agency Meeting, to be issued in 2013, will address the use of space technology for agriculture and food security.

308. The Committee welcomed with appreciation the publication *Space and Climate Change*, which had been jointly produced by the World Meteorological Organization and the Office for Outer Space Affairs on the basis of the above-mentioned report on the use of space technology within the United Nations system to address climate change issues. The Committee noted that the publication had been distributed widely at the United Nations Climate Change Conference held in Durban, South Africa, in November and December 2011 and that it had been made available to delegations at the present session of the Committee.

309. The Committee noted that the open informal session for member States and observers of the Committee on the theme "Space for agriculture and food security"

had been held immediately following the thirty-second session of the Inter-Agency Meeting, held in Rome on 9 March 2012. The Committee agreed that those informal sessions provided an opportunity to increase awareness and share views on topics related to the use of space technology in the United Nations system and encouraged member States to continue to actively participate in those sessions.

- 310. The Committee noted that the Office for Outer Space Affairs, in its function as the secretariat of the Inter-Agency Meeting, would coordinate with Geneva-based United Nations entities with regard to the hosting of the thirty-third session of the Inter-Agency Meeting, to be held in 2013.
- 311. The Committee took note of the cooperative efforts between member States and United Nations entities to promote the use of space technology to resolve global issues faced by humanity. In that connection, the Committee noted the resolution entitled "Asia-Pacific Years of Action for Applications of Space Technology and Geographic Information System for Disaster Risk Reduction and Sustainable Development, 2012-2017", adopted by the Economic and Social Commission for Asia and the Pacific at its sixty-eighth session, held in Bangkok in May 2012.
- 312. The Committee noted with satisfaction that the Secretariat continued to maintain a website on the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org). The presentations made at the thirty-second session of the Inter-Agency Meeting and the subsequent open informal session, as well as other information on the current space-related activities of United Nations entities, were available on that website.

J. Future role of the Committee

- 313. The Committee considered the agenda item entitled "Future role of the Committee", in accordance with General Assembly resolution 66/71.
- 314. The Committee recalled its agreement at its fifty-fourth session to continue its consideration of the item at its fifty-fifth session, in 2012, for one year only, and to consider submissions under the item, including a proposed update of the working paper by the Chair of the Committee for the period 2008-2009 entitled "Towards a United Nations space policy" (A/AC.105/L.278).
- 315. The representatives of Argentina, Brazil, China, Italy, Japan, Nigeria, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.
- 316. The Committee noted with appreciation the discussion paper entitled "Next phase in global governance for space research and utilization" (A/AC.105/2012/CRP.4), submitted by the current Chair of the Committee with the aim of stimulating thought and promoting an open dialogue on various cross-cutting issues before the Committee.
- 317. The Committee noted that many issues related to its future role had already been addressed under other agenda items and would therefore be reflected in other parts of the present report.

- 318. Some delegations expressed the view that the Committee and its Scientific and Technical Subcommittee and Legal Subcommittee constituted a unique common platform for promoting international cooperation in the peaceful uses of outer space at the global level, and therefore interaction between the three bodies on the cross-cutting issues before them should be intensified.
- 319. The view was expressed that the utilization of space for the benefit of humankind would have positive effects on the sustainable industrial development of nations and that space could play a key role in assisting developing countries in improving their capabilities. In that context, that delegation was of the view that the Committee should explore ways to cooperate in the future with other United Nations bodies, such as the United Nations Industrial Development Organization, the United Nations Conference on Trade and Development, the United Nations Environment Programme and the Commission on Science and Technology for Development of the Economic and Social Council, in order to find ways in which space technology could contribute to the achievement of the Millennium Development Goals and any future development targets that might result from political commitments undertaken by Member States upon the conclusion of the United Nations Conference on Sustainable Development (Rio+20).
- 320. Some delegations expressed the view that, in order to maintain the peaceful nature of space activities, it was essential for the Committee to enhance its cooperation and coordination with the First Committee of the General Assembly; the group of governmental experts to conduct a study on outer space transparency and confidence-building measures, established pursuant to General Assembly resolution 65/68; and the Conference on Disarmament.
- 321. The view was expressed that while the working paper referred to in paragraph 314 above contained useful ideas and could be supported in general, several concepts introduced in the paper were ambiguous and different priorities had to be set for their further consideration. That delegation was of the view that any new proposals should not establish a new interpretation of the existing provisions of international space law and that the language of and the definitions contained in such proposals should be clear and consistent with the language and terminology used both by the Committee and in international space law.
- 322. The view was expressed that since the Committee had, in practice, completed the implementation of the recommendations of UNISPACE III, consideration should be given to holding a fourth United Nations conference on the exploration and peaceful uses of outer space in the near future, and that the new multilateral framework that would eventually emerge from Rio+20 would create even more favourable conditions for such an initiative.
- 323. The Committee agreed to continue its consideration of the item at its fifty-sixth session, in 2013, for one year only.

K. Other matters

324. The Committee considered the agenda item entitled "Other matters", in accordance with General Assembly resolution 66/71.

325. The representatives of Argentina, Austria, Azerbaijan, Belgium, Brazil, Canada, Chile, China, the Czech Republic, Ecuador, Egypt, France, Germany, Hungary, Indonesia, Iraq, Italy, Kenya, Mexico, Nigeria, Pakistan, Portugal, Romania, the Russian Federation, South Africa, Switzerland, Turkey, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under the item. Statements were also made by the representatives of Argentina on behalf of the Group of Latin American and Caribbean States and Ecuador on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were also made by representatives of other member States, as well as by the representative of France, together with the observer for the European Union, on behalf of the European Union. The observers for Armenia, Costa Rica and Jordan made statements. Statements were also made by the observers for the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation and SCOSTEP.

1. Proposed strategic framework for the programme on the peaceful uses of outer space for the period 2014-2015

326. The Committee had before it for its consideration the proposed strategic framework for the programme on the peaceful uses of outer space for the period 2014-2015 (A/67/6 (Prog. 5)). The Committee agreed on the proposed strategic framework.

2. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2014-2015

- 327. In accordance with General Assembly resolution 66/71 and pursuant to the measures relating to the working methods of the Committee and its subsidiary bodies,⁴ as endorsed by the General Assembly in its resolution 52/56, the Committee considered the composition of the bureaux of the Committee and its subsidiary bodies for the period 2014-2015.
- 328. The Committee noted that the African States had endorsed the candidature of Azzedine Oussedik (Algeria) for the office of Chair of the Committee for the period 2014-2015 (A/AC.105/2012/CRP.10).
- 329. The Committee noted that the Latin American and Caribbean States had decided that Ecuador would nominate its representative for the office of First Vice-Chair of the Committee for the period 2014-2015 (A/AC.105/2012/CRP.20).
- 330. The Committee noted that the Eastern European States had endorsed the candidature of Elöd Both (Hungary) for the office of Chair of the Scientific and Technical Subcommittee for the period 2014-2015 (A/AC.105/2012/CRP.11).
- 331. The Committee noted that the Western European and other States had endorsed the candidature of Kai-Uwe Schrogl (Germany) for the office of Chair of the Legal Subcommittee for the period 2014-2015 (A/AC.105/2012/CRP.12).

⁴ Official Records of the General Assembly, Fifty-second Session, Supplement No. 20 (A/52/20), annex I; see also Official Records of the General Assembly, Fifty-eighth Session, Supplement No. 20 (A/58/20), annex II, appendix III.

332. The Committee noted that the Asian States would nominate their candidate for the office of Second Vice-Chair/Rapporteur of the Committee for the period 2014-2015.

3. Observer status

333. The Committee took note of the application of the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2012/CRP.9.

334. The Committee decided to recommend that the General Assembly, at its sixty-seventh session, grant to the Ibero-American Institute of Aeronautic and Space Law and Commercial Aviation the status of permanent observer with the Committee. The Committee noted that the Institute, in its application, had presented documentation indicating that it had held special consultative status with the Economic and Social Council since 1976.

335. The Committee took note of the application of SCOSTEP. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2012/CRP.8.

336. The Committee decided to recommend that the General Assembly, at its sixty-seventh session, grant to SCOSTEP the status of permanent observer of the Committee on the understanding that, in accordance with the agreement of the Committee at its thirty-third session⁵ and at its fifty-third session⁶ concerning observer status for non-governmental organizations and in accordance with the practice established by the Committee, SCOSTEP would apply for consultative status with the Economic and Social Council.

4. Organizational matters

337. The Committee recalled its agreement made at its fifty-fourth session, in 2011, on certain methods to enhance the organization of work of its sessions and the sessions of the Scientific and Technical Subcommittee and Legal Subcommittee, and noted with satisfaction that those measures had already been applied successfully in the sessions of the Subcommittees in 2012. In that regard, the Committee stressed the need for maximum flexibility in the scheduling of agenda items in order to optimize the balance between the consideration of agenda items in plenary meetings and work conducted in working groups.

338. Some delegations expressed the view that in order to make sessions more effective, the following measures could be considered: reallocation of time and resources, on an experimental basis, in particular in view of the first results of the measures in the Working Group on the Long-term Sustainability of Outer Space Activities; avoiding the simultaneous opening of several agenda items for consideration; merging agenda items; adopting an action-oriented agenda and action-oriented reports; and considering organizational matters earlier in the sessions to allow adequate time for substantive discussions.

⁵ Ibid., Forty-fifth Session, Supplement No. 20 (A/45/20), para. 137.

⁶ Ibid., Sixty-fifth Session, Supplement No. 20 (A/65/20), para. 311.

⁷ Ibid., Sixty-sixth Session, Supplement No. 20 (A/66/20), para. 298.

- 339. Some delegations expressed the view that the conference room paper made available at the fifty-first session of the Legal Subcommittee entitled "Organizational matters" (A/AC.105/C.2/2012/CRP.14) should be considered by the Committee at its fifty-sixth session. Those delegations noted that the paper reviewed good practices used by other, comparable United Nations entities with respect to the structure of reports of intergovernmental bodies, and that the substance of the paper should be used as a basis for discussions on the streamlining and organization of work of the Committee and its Subcommittees.
- 340. Some delegations expressed the view that the current duration of the sessions of the Legal Subcommittee and the Committee should be maintained in order for the Committee to be able to continue to ensure the rule of law in space activities and the progressive development of space law and maintain outer space a province of humankind for peaceful uses, and in order to allow sufficient time for the consideration of substantive agenda items, in particular with a view to the consideration of new agenda items by the Legal Subcommittee.
- 341. Some delegations expressed the view that measures aimed at making the sessions of the Committee and its Subcommittees more efficient should not affect the flexibility already conferred on the secretariat through the possibility of reopening agenda items for consideration if necessary.
- 342. Some delegations expressed the view that the Scientific and Technical Subcommittee should give more importance to substantive issues and avoid commercially oriented technical presentations.
- 343. The view was expressed that the Scientific and Technical Subcommittee, whose sessions had the greatest number of technical presentations, should consider using the time between meetings for technical presentations, if necessary, in order to allow the Working Group on the Long-term Sustainability of Outer Space Activities as much time as possible to advance its work.

5. Draft provisional agenda for the fifty-sixth session of the Committee

- 344. The Committee considered the draft provisional agenda for its fifty-sixth session and agreed to consolidate 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) and the item on space and society.
- 345. The Committee recommended that the following substantive items be considered at its fifty-sixth session, in 2013:
 - 1. General exchange of views.
 - 2. Ways and means of maintaining outer space for peaceful purposes.
 - 3. Report of the Scientific and Technical Subcommittee on its fiftieth session.
 - 4. Report of the Legal Subcommittee on its fifty-second session.
 - 5. Space and sustainable development.
 - 6. Spin-off benefits of space technology: review of current status.

- 7. Space and water.
- 8. Space and climate change.
- 9. Use of space technology in the United Nations system.
- Future role of the Committee.
- 11. Other matters.

346. The Committee agreed that under the item entitled "Space and sustainable development" the following thematic areas, inter alia, could be considered: the use of space science and technology applications for socioeconomic development and sustainable development; the outcomes of Rio+20; and education and capacity-building.

347. The Committee noted that 2013 would mark the fiftieth anniversary of the first space flight by a woman, Valentina Tereshkova, and agreed that a half-day event should be organized by the secretariat to address the contribution of women to space activities, and agreed that the event should consist of a panel of prominent women in the space-related field of space explorations, science, technology, education, business and policy and that the topic of the event should be "Space: building the future today". In that regard, the Committee agreed that a planning meeting for interested delegations should be held on the margins of the fiftieth session of the Scientific and Technical Subcommittee.

348. The Committee agreed that the secretariat should schedule the work of the Committee at its next session, in 2013, in such a manner as to enable the Working Group on Near-Earth Objects and the Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee to benefit from interpretation services.

349. In the context of streamlining its agenda, the Committee took note of the proposal by Indonesia for an item entitled "Space and the Earth environment", which could encompass, inter alia, the following major environmental issues: climate change, environmental degradation, land degradation, land use, ecosystem resources, food security and health.

350. Some delegations stressed the importance of the role of the Committee in identifying problems resulting from inadequate cooperation between institutions with responsibilities for marine and coastal management and the national, subregional, regional and international institutions with space capacities, and proposed that a high-level panel address that issue when the General Assembly considered the item on international cooperation in the peaceful uses of outer space at its sixty-seventh session.

L. Schedule of work of the Committee and its subsidiary bodies

351. The Committee agreed on the following tentative timetable for its session and those of its Subcommittees in 2013:

	Date	Location
Scientific and Technical Subcommittee	11-22 February 2013	Vienna
Legal Subcommittee	8-19 April 2013	Vienna
Committee on the Peaceful Uses of Outer		
Space	12-21 June 2013	Vienna