United Nations A/AC.105/C.1/L.296



## **General Assembly**

Distr.: Limited 18 February 2008

Original: English

Committee on the Peaceful Uses of Outer Space Scientific and Technical Subcommittee Forty-fifth session Vienna, 11-22 February 2008

### **Draft report**

### I. Introduction

- 1. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space held its forty-fifth session at the United Nations Office at Vienna from 11 to 22 February 2008 under the chairmanship of Aboubekr Seddik Kedjar (Algeria).
- 2. The Subcommittee held [...] meetings.

### A. Attendance

- 3. Representatives of the following 54 member States of the Committee attended the session: Algeria, Argentina, Austria, Belgium, Bolivia, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Lebanon, Libyan Arab Jamahiriya, Malaysia, Morocco, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sweden, Switzerland, Syrian Arab Republic, Thailand, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Venezuela (Bolivarian Republic of) and Viet Nam.
- 4. At the 678th meeting, on 11 February, the Chairman informed the Subcommittee that requests had been received from Angola, Costa Rica, Côte d'Ivoire, the Dominican Republic, El Salvador, Guatemala, the former Yugoslav Republic of Macedonia and Tunisia to attend the session as observers. Following past practice, those States were invited to send delegations to attend the current session of the Subcommittee and address it, as appropriate, without prejudice to further requests of that nature; that action did not involve any decision

V.08-51099 (E)



of the Subcommittee concerning status but was a courtesy that the Subcommittee extended to those delegations.

- 5. The following United Nations entities were represented at the session by observers: the United Nations Institute for Training and Research (UNITAR), the International Telecommunication Union (ITU), the World Meteorological Organization (WMO) and the International Atomic Energy Agency (IAEA).
- 6. The following were also represented by observers: the African Organization of Cartography and Remote Sensing (AOCRS), the Association of Space Explorers (ASE), the Committee on Earth Observation Satellites (CEOS), the Committee on Space Research (COSPAR), EURISY, the European Space Agency (ESA), the European Space Policy Institute (ESPI), the International Astronautical Federation (IAF), the International Mobile Satellite Organization (IMSO), the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Space University (ISU), the Space Generation Advisory Council (SGAC) and the World Space Week Association (WSWA). The European Organisation for Astronomical Research in the Southern Hemisphere (ESO) and the Secure World Foundation (SWF) attended the session and have pending requests for permanent observer status with the Committee. The European Telecommunications Satellite Organization (EUTELSAT) attended the session and requested permanent observer status with the Committee (A/AC.105/C.1/2008/CRP.7).
- 7. A list of the representatives of States, United Nations entities and other international organizations attending the session is contained in A/AC.105/C.1/INF/[...].

### B. Adoption of the agenda

- 8. At its 678th meeting, on 11 February 2008, the Subcommittee adopted the following agenda:
  - 1. Adoption of the agenda.
  - 2. Election of the Chairman.
  - 3. Statement by the Chairman.
  - 4. General exchange of views and introduction of reports submitted on national activities.
  - 5. United Nations Programme on Space Applications.
  - 6. Implementation of the recommendations of the Third United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE III).
  - 7. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
  - 8. Space debris.
  - 9. Space-system-based disaster management support.

- 10. Recent developments in global navigation satellite systems.
- 11. Use of nuclear power sources in outer space.
- 12. Near-Earth objects.
- 13. International Heliophysical Year 2007.
- 14. 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.
- 15. Draft provisional agenda for the forty-sixth session of the Scientific and Technical Subcommittee.
- 16. Report to the Committee on the Peaceful Uses of Outer Space.

### C. Election of the Chairman

9. At its 678th meeting, the Subcommittee elected Aboubekr Seddik Kedjar (Algeria) Chairman of its forty-fifth and forty-sixth sessions, pursuant to General Assembly resolution 62/217 of 22 December 2007.

### D. General statements

- 10. The Subcommittee welcomed the election of Aboubekr Seddik Kedjar as Chairman for a two-year term, starting in 2008. The Subcommittee expressed its appreciation to the outgoing Chairman, Mazlan Othman (Malaysia), for her leadership and contribution to furthering the achievements of the Subcommittee during her term of office, and welcomed Ms. Othman in her new role as Director of the Office for Outer Space Affairs of the Secretariat.
- 11. The Subcommittee warmly welcomed Bolivia and Switzerland as new members of the Committee, and AOCRS was welcomed as the newest permanent observer of the Committee.
- 12. Statements were made by representatives of the following member States during the general exchange of views: Algeria, Austria, Bolivia, Brazil, Canada, Chile, China, Colombia, Cuba, Czech Republic, Ecuador, France, Germany, Hungary, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Libyan Arab Jamahiriya, Malaysia, Nigeria, Pakistan, Philippines, Poland, Republic of Korea, Romania, Russian Federation, South Africa, Spain, Switzerland, Syrian Arab Republic, Thailand, United Kingdom, United States and Venezuela (Bolivarian Republic of). General statements were made by the observers for ESA, ESO, ESPI, EURISY, EUTELSAT, IAF, SGAC, and SWF.
- 13. At the 678th meeting, the Chairman made a statement outlining the work of the Subcommittee at its current session and reviewing the global space activities of the previous year, including important advances that had been made as a result of international cooperation.

- 14. Also at the 678th meeting, the Director of the Office for Outer Space Affairs made a statement reviewing the work programme of the Office.
- 15. The Subcommittee was informed about the planned engagement of the inoperable satellite "USA 193" of the National Reconnaissance Office of the United States, which was currently in a decaying orbit and which was expected to re-enter the Earth's atmosphere in the coming weeks.

### E. National reports

16. The Subcommittee took note with appreciation of the reports submitted by Member States (A/AC.105/907 and Add.1) for its consideration under agenda item 4, "General exchange of views and introduction of reports submitted on national activities". The Subcommittee recommended that the Secretariat continue to invite Member States to submit annual reports on their space activities.

### F. Symposium

- 17. Pursuant to General Assembly resolution 62/217, an industry symposium on the theme "Space industry in emerging space nations" was held on 12 February 2008. It was moderated by the Director of the Office for Outer Space Affairs.
- 18. The presentations given at the symposium included the following: "Space industry of emerging space nations in the global space market", by S. Bochinger of Euroconsult; "IAF and its role to promote space industry relations with emerging space nations", by J. V. Zimmerman of IAF; "Building indigenous space industry capacities: the Indian experience", by K. Radhakrishnan of the Indian Space Research Organization (ISRO)/Antrix; "Satellite solutions in emerging countries", by B. Pavesi of Telespazio; and "Cooperation between space industry in established and emerging space nations" by G. Maquet of Astrium.

# G. Coordination of space activities within the United Nations system and inter-agency cooperation

- 19. The Subcommittee noted with satisfaction that the Inter-Agency Meeting on Outer Space Activities had held its twenty-eighth session in Geneva from 16 to 18 January 2008. The Subcommittee had before it the report of the Inter-Agency Meeting on its twenty-eighth session (A/AC.105/909) and the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2008-2009 (A/AC.105/910). The Subcommittee noted that those reports indicated the extent to which space technology and its applications had become essential tools in support of a wide range of United Nations activities aimed at implementing and supporting the goals and decisions of global conferences and summits and that they served as strategic tools for the United Nations to avoid duplication of efforts in the use of space applications and space-related activities.
- 20. The Subcommittee noted with appreciation that the Inter-Agency Meeting had agreed to prepare a report on the benefits of space technology for sustainable

development for Africa and noted that the report was to be presented at the Third African Leadership Conference on Space Science and Technology for Sustainable Development, to be held in Algeria in 2009.

- 21. The Subcommittee further noted that the Inter-Agency Meeting had agreed on the desirability of reporting to the Committee on the Peaceful Uses of Outer Space and of moving the dates of its annual meetings closer to the sessions of the Committee.
- 22. The Subcommittee noted that the Inter-Agency Meeting would hold its twenty-ninth session in Vienna in 2009.
- 23. The Subcommittee noted that, following its twenty-eighth session, on 18 January 2008, the Inter-Agency Meeting had held its fifth open informal session for member States and observers of the Committee. The theme "Public-private partnerships and innovative funding approaches in the United Nations system to promote the use of space technology and its applications" was discussed in view of the fact that Member States increasingly called upon the United Nations system to engage in mutually beneficial public-private partnerships and to seek innovative funding approaches in support of implementing mandated activities with greater efficiency and effectiveness.

# H. Adoption of the report of the Scientific and Technical Subcommittee

24. After considering the items before it, the Subcommittee, at its [...]th meeting, on [...] February 2008, adopted its report to the Committee on the Peaceful Uses of Outer Space, containing its views and recommendations, as set out in the paragraphs below.

### **II.** United Nations Programme on Space Applications

- 25. In accordance with General Assembly resolution 62/217, the Scientific and Technical Subcommittee continued its consideration of agenda item 5, "United Nations Programme on Space Applications".
- 26. At the 679th meeting, the Expert on Space Applications made a statement outlining the activities carried out and planned under the United Nations Programme on Space Applications.
- 27. The representatives of Canada, India, Japan, Mexico and the United States made statements under agenda item 5.
- 28. In accordance with General Assembly resolution 62/217, the Subcommittee, at its 682nd meeting, reconvened the Working Group of the Whole and elected K. Radhakrishnan (India) Chairman. The Working Group of the Whole held [...] meetings from 13 to [...] February 2008. At its [...]th meeting, on [22] February, the Subcommittee endorsed the report of the Working Group of the Whole, which is contained in annex I to the present report.

### A. Activities of the United Nations Programme on Space Applications

- 29. The Subcommittee had before it the report of the Expert on Space Applications (A/AC.105/900). The Subcommittee noted that the United Nations Programme on Space Applications for 2007 had been carried out satisfactorily and commended the work accomplished by the Expert in that regard.
- 30. The Subcommittee noted that the priority thematic areas of the Programme were natural resources management and environmental monitoring, disaster management, tele-education and tele-health, and education and capacity-building in areas including basic space science and space law. The Subcommittee also noted that the following were among the technology applications that could be used to address those thematic areas: global navigation satellite systems (GNSS), satellite communications, remote sensing and the geographic information system (GIS), Earth observation and meteorology satellites, and the application of micro- and nanotechnologies in space. The Subcommittee further noted that the Programme took the approach of "integrated space technology applications", in which all the above-mentioned priority thematic areas were integrated when appropriate. The Subcommittee also noted that it was necessary for the Programme to continue to include all the priority thematic areas in order to ensure the integrity of the Programme's overall efforts.
- 31. The Subcommittee noted with appreciation that, since its previous session, additional resources for 2007 had been provided by various Member States and organizations and had been acknowledged in the report of the Expert (A/AC.105/900, paras. 58 and 59).
- 32. The Subcommittee expressed its concern at the fact that the financial resources available for carrying out the United Nations Programme on Space Applications remained limited and appealed to Member States to support the Programme through voluntary contributions. The Subcommittee was of the view that the limited resources of the United Nations should be focused on the activities with the highest priority. It noted that the United Nations Programme on Space Applications was a priority activity of the Office for Outer Space Affairs.
- 33. The Subcommittee noted that space science and technology and their applications formed an integral part of the development agenda and, as such, possessed vast potential for addressing a variety of socio-economic problems in developing countries, particularly in the areas of communication, rural development, disaster management, education and health. The Subcommittee noted in that regard that the workshops, training courses, seminars and meetings of the United Nations Programme on Space Applications were of paramount importance in increasing the capability to use space science and technology and their applications, particularly in developing countries.
- 34. The Subcommittee noted that, in addition to the United Nations conferences, training courses, workshops, seminars and symposiums planned for 2008 (see para. 38 below), other activities of the Programme in 2008 would place emphasis on the following areas:

- (a) Providing support for education and training for capacity-building in developing countries through the regional centres for space science and technology education, affiliated to the United Nations;
- (b) Organizing workshops and seminars on advanced space applications and short- and medium-term training programmes;
- (c) Strengthening its long-term fellowship programme to include support for the implementation of pilot projects;
  - (d) Promoting the participation of youth in space activities;
- (e) Supporting or initiating pilot projects as follow-up to activities of the Programme in areas of priority interest to member States;
- (f) Providing technical advisory services, upon request, to Member States, bodies and specialized agencies of the United Nations system and relevant national and international organizations;
  - (g) Enhancing access to space-related data and other information.

### 1. Year 2007

Meetings, seminars, symposiums, training courses and workshops

- 35. With regard to the activities of the United Nations Programme on Space Applications carried out in 2007, the Subcommittee expressed its appreciation to the following for co-sponsoring the various workshops, symposiums and training courses that had been held within the framework of the Programme referred to in the report of the Expert on Space Applications (A/AC.105/900, para. 59 and annex I):
- (a) The Governments of Argentina, Austria, India, Japan, Mexico, Morocco, Switzerland, the Republic of Korea, the Russian Federation, the United States and Viet Nam;
- (b) ESA, the International Academy of Astronautics, IAF, the Space Research Institute of the Austrian Academy of Sciences and Joanneum Research, the National Aeronautics and Space Administration (NASA) of the United States, the National Astronomical Observatory of Japan, the National Centre for Health Technology Excellence of Mexico, the National Commission on Space Activities of Argentina (CONAE), the National Remote Sensing Agency of India, the Royal Centre for Remote Sensing of Morocco, the Russian Space Research Institute of the Russian Academy of Sciences, and the Vietnamese Academy of Science and Technology.

Long-term fellowships for in-depth training

- 36. The Subcommittee 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 five 12-month fellowships for postgraduate studies in GNSS and related applications.
- 37. The Subcommittee noted with satisfaction that in June 2007, the Programme and CONAE had jointly established the United Nations/Argentina fellowship programme for advanced training in landscape epidemiology as an annual six-week

training course, to be held at the Mario Gulich Institute for Higher Space Studies in Córdoba, Argentina.

Technical advisory services

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

#### 2. Year 2008

Meetings, seminars, symposiums, training courses and workshops

- 39. The Subcommittee recommended the approval of the following programme of meetings, seminars, symposiums, training courses and workshops, to be organized jointly by the Office for Outer Space Affairs, host Governments and others in 2008:
- (a) United Nations/Saudi Arabia/United Nations Educational, Scientific and Cultural Organization International Conference on the Use of Space Technology in Water Management, to be held in Riyadh from 15 to 19 March;
- (b) United Nations/Burkina Faso/World Health Organization/European Space Agency Workshop on the Use of Space Technology in Tele-health to Benefit Africa, to be held in Ouagadougou from 5 to 9 May;
- (c) United Nations/European Space Agency/National Aeronautics and Space Administration/Japanese Aerospace Exploration Agency Workshop on the International Heliophysical Year 2007 and Basic Space Science: First Results from the International Heliophysical Year 2007, to be held in Sozopol, Bulgaria, from 2 to 6 June:
- (d) United Nations/Colombia/United States of America Workshop on Applications of Global Navigation Satellite Systems, to be held in Medellin, Colombia, from 23 to 27 June;
- (e) United Nations/Indonesia Regional Workshop on Applications of Integrated Space Technology in Water Resource Management, Environmental Protection and Disaster Vulnerability Mitigation, to be held in Jakarta from 7 to 11 July;
- (f) United Nations/Austria/European Space Agency Symposium on Space Applications to Support the Plan of Implementation of the World Summit on Sustainable Development, to be held in Graz, Austria, from [...] to [...] September;
- (g) United Nations/International Astronautical Federation Workshop on Space Technology: Support for an Integrated Approach to Address Potential Environmental Hazards, to be held in Glasgow, United Kingdom, on 26 and 27 September;
- (h) United Nations/India/European Space Agency Regional Workshop on the Use of Space Technology in Tele-epidemiology to Benefit Asia and the Pacific, to be held in Lucknow, India, from 21 to 24 October;

- (i) United Nations Workshop on Space Law, to be held in Bangkok from 24 to 27 November;
- (j) United Nations/Kenya/European Space Agency Regional Workshop on the Use of Integrated Space Technology Applications in Monitoring the Impact of Climate Change on Agricultural Development and Food Security, to be held in Nairobi from 1 to 5 December;
- (k) Workshops and training courses to be organized at the regional centres for space science and technology education, affiliated to the United Nations.

### **B.** International Space Information Service

- 40. The Subcommittee noted with satisfaction the publication of *Highlights in Space 2007*, which had been compiled from a report prepared by IAF, in cooperation with the International Institute of Space Law. The Subcommittee expressed its appreciation to the contributors for their work.
- 41. The Subcommittee noted with appreciation that the Secretariat had continued to enhance the International Space Information Service and the website of the Office for Outer Space Affairs (www.unoosa.org), as well as the website on the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org).

### C. Regional and interregional cooperation

- 42. The Subcommittee noted that the highlights of the activities of the regional centres for space science and technology education, affiliated to the United Nations, supported under the United Nations Programme on Space Applications in 2007 and planned activities for 2008 and 2009 were included in the report of the Expert on Space Applications (A/AC.105/900, annex III).
- 43. The Subcommittee noted that all the regional centres had scheduled meetings of their governing boards, as the policymaking bodies of the regional centres, in 2008. Those meetings would be utilized to strengthen cooperation with Governments in the respective regions to further develop the status of the regional centres as centres of excellence for education in all aspects of space science and technology.
- 44. The Subcommittee further noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize cooperation with member States at the regional and international levels aimed at supporting the centres.
- 45. The Subcommittee noted that the regional centres had participated in the International Institute for Geo-Information Science and Earth Observation/Group on Earth Observations/ISPRS seminar on recognition of cross-border capacity-building in Earth observation, held on 1 and 2 November 2007 at Enschede in the Netherlands. Implementation of the conclusions of the seminar will guide the

<sup>&</sup>lt;sup>1</sup> United Nations publication, Sales No. E.08.I.7.

regional centres to enhance the recognition and governance of higher education qualifications in Earth observation and geo-information at the regional and international levels.

- 46. The Subcommittee further noted that the Government of India had continuously provided strong support to the Regional Centre for Space Science and Technology Education in Asia and the Pacific since its inception in 1995, including making the appropriate facilities and expertise available to it through the Indian Space Research Organisation and the Department of Space of India. The Subcommittee noted that, to date, the Centre had conducted 26 nine-month postgraduate courses: 11 on remote sensing and GIS, 5 on satellite communications, and 5 each on satellite meteorology and global climate and space and atmospheric science. The Centre had further conducted 16 short courses and workshops in the previous 10 years. Having completed over a decade of educational activities, the Centre was planning to achieve the status of international centre of excellence in training, education and research. A total of 752 people from 46 countries had participated in the courses mentioned above.
- 47. The Subcommittee noted that the Regional Centre for Space Science and Technology Education in Latin America and the Caribbean had started organizing nine-month postgraduate courses in 2002. The Centre was strongly supported by the Governments of Brazil and Mexico and by the National Institute for Space Research of Brazil and the National Institute of Astrophysics, Optics and Electronics of Mexico. To date, the campus in Brazil had conducted five postgraduate courses on remote sensing and GIS. The campus in Mexico had conducted two postgraduate courses on remote sensing and GIS, one course on satellite communications and had prepared a course on space and atmospheric science, to be offered in 2008. The campus in Mexico involved students in the development of technological projects related to the courses. In 2007, the Centre had hosted three short-term courses. Furthermore, the Center for the Integrated Surveying of Natural Resources by means of Remote Sensing of Ecuador had extended its support to the activities of the Centre in 2007.
- 48. The Subcommittee noted that the African Regional Centre for Space Science and Technology—in French Language, had been organizing nine-month postgraduate courses since its inauguration in 1998. The Centre was actively supported by the Government of Morocco, as well as by the Royal Centre for Remote Sensing, the Mohammadia Engineering School, the Hassan II Institute of Agronomy and Veterinary Medicine, the National Institute of Telecommunications and the National Directorate of Meteorology. The Subcommittee noted that the Centre had already conducted eight nine-month postgraduate courses in remote sensing and GIS, satellite communications and satellite meteorology and global climate. Since its inauguration, the Centre had organized 13 short-term workshops and conferences.
- 49. The Subcommittee noted that, since its inauguration in Nigeria in 1998 under the auspices of the National Space Research and Development Agency of Nigeria, the African Regional Centre for Space Science and Technology Education—in English Language had organized 12 nine-month postgraduate courses: five in remote sensing and GIS, two in satellite meteorology and global climate, four in satellite communications and one in space and atmospheric science. In 2007, the Centre had also held short courses.

- 50. The Subcommittee noted that, in promoting capacity-building in areas related to space activities, training courses on remote sensing and GIS had been carried out jointly by the Japan Aerospace Exploration Agency and the Asian Institute of Technology, located in Thailand, for government officials in the Asian region.
- 51. The Subcommittee also noted that the fourteenth session of the Asia-Pacific Regional Space Agency Forum had been held in Bangalore, India, from 21 to 23 November 2007; the theme of the session had been "Space for human empowerment". The Forum aimed at strengthening collaboration in the sharing of disaster-related information and in promoting the use of space education for young people in the Asia-Pacific region.
- 52. The Subcommittee also noted that the Asia-Pacific Space Cooperation Organization provided a cooperative arrangement to promote the peaceful uses of outer space in the region.
- 53. The Subcommittee noted that the Village Resource Centres that had been established across India were an example of a unique societal application of space technology and would provide a variety of services relevant to rural communities, such as expert advice on agriculture, fishery, health and hygiene, as well as access to information on natural resources in areas such as watershed development and land use.
- 54. The Subcommittee noted that the Second African Leadership Conference on Space Science and Technology for Sustainable Development, with the theme "Building African partnership in space" had been held in Pretoria from 2 to 5 October 2007. Building upon the first African Leadership Conference on Space Science and Technology for Sustainable Development, which had been held in November 2005, the Conference focused on capacity-building, knowledge-sharing and the joint participation of African countries in mutually beneficial projects in the area of space science and technology for sustainable development. The Subcommittee also noted that the Third African Leadership Conference on Space Science and Technology for Sustainable Development would be held in Algeria in 2009.
- 55. The Subcommittee further noted that the international workshop entitled "Climate change and adaptation in Africa: the role of space technologies" had been held in Algiers from 22 to 24 October 2007. Organized by the African Regional Centre for Space Science and Technology—in French Language and the Algerian Space Agency, the workshop had been aimed at improving the capacity of African countries to adapt to climate change in ways that benefited the most vulnerable.
- 56. The Subcommittee noted that a workshop on the use of space technology for human health had been held in Mexico City from 25 to 29 June. Over 30 recommendations had been made by the participants, as a result of which a task force was established for the Latin American and Caribbean region and a regional initiative in the field of tele-epidemiology was to be implemented.
- 57. The Subcommittee noted that a meeting had been held in Quito on 13 and 14 December 2007, with representatives of the Government of Ecuador, host of the Fifth Space Conference of the Americas in 2006; the Government of Colombia, host of the Fourth Conference in 2002; the Government of Guatemala, host of the Sixth Conference, to be held in 2009; and the Office for Outer Space Affairs, as well as

the International Group of Experts of the Space Conferences of the Americas. The Subcommittee took note of the set of recommendations for the preparation of the Sixth Conference adopted by the International Group of Experts at the meeting in Quito (A/AC.105/C.1/2008/CRP.5). The Subcommittee also noted the proposal that Walter Lichem become a member of the International Group of Experts.

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

- 58. In accordance with General Assembly resolution 62/217, the Subcommittee continued its consideration of agenda item 7, relating to remote sensing of the Earth.
- 59. In the course of the discussions, delegations reviewed national and cooperative programmes in remote sensing. Examples were given of national programmes and bilateral, regional and international cooperation. The representatives of Canada, Cuba, India, Japan, Nigeria, the Philippines, Portugal, the Republic of Korea, the Russian Federation and the United States made statements under the agenda item.
- 60. The Subcommittee heard the following scientific and technical presentations on the item:
  - (a) "Turkish space technology panorama", by the representative of Turkey;
  - (b) "Progress in GEOSS implementation", by the observer for GEO;
- (c) "COSMO-SkyMed: the Italian Earth observation system", by the representative of Italy;
- (d) "Activities of Ukraine in the field of the design and manufacturing of remote sensing satellites", by the representative of Ukraine.
- 61. The Subcommittee emphasized the importance of Earth observation satellite data to support activities in a number of key development areas: geology, hydrology, oceanography, environmental monitoring, search and rescue efforts, water resource management, fishery, wetland management, agriculture, food security, forestry and deforestation, drought and desertification, land-use management, natural resource management, waste management, monitoring and controlling forest fires, weather monitoring and forecasting, monitoring global climate change and greenhouse gases, monitoring ice sheets, urban planning, rural development, early warning for disasters and humanitarian relief.
- 62. The Subcommittee noted with satisfaction that in December 2007 NASA had released the Land Remote Sensing Satellite (Landsat) Image Mosaic of Antarctica, which was the first true-colour, high-resolution satellite view of the Antarctic continent.
- 63. The Subcommittee noted a number of international projects in the use of satellite technologies aimed at supporting sustainable development, such as the Sentinel-Asia project, the ESA Terrestrial Initiative of Global Environmental Research (TIGER), and the partnership between Brazil and China relating to the China/Brazil Earth Resources Satellite programme.

- 64. The Subcommittee noted the importance of providing, for peaceful purposes, non-discriminatory access to remote sensing data and to derived information at reasonable cost and in a timely manner and of building capacity for the adoption and use of remote sensing technology, in particular to meet the needs of developing countries.
- 65. The view was expressed that the free availability of high-resolution imagery of sensitive areas on the Internet was a point of concern, for strategic reasons. That delegation proposed that guidelines consistent with national policies should be developed to regulate the availability in the public domain of such sensitive data.
- 66. The Subcommittee encouraged further international cooperation in the use of remote sensing satellites, in particular by sharing experiences and technologies through bilateral, regional and international collaborative projects. The Subcommittee noted the important role played by organizations such as CEOS, IAF and ISPRS and by international entities such as the Integrated Global Observing Strategy Partnership in promoting international cooperation in the use of remote sensing technology, in particular for the benefit of developing countries.
- 67. The Subcommittee welcomed with satisfaction the presentation by the secretariat of GEO, at the invitation of the General Assembly in its resolution 62/217, on the progress made in the implementation of the 10-year Work Plan for a Global Earth Observation System of Systems (GEOSS), and noted that GEOSS had been designed to make tangible contributions in the following nine "societal benefit areas": disasters, health, energy, climate, water, weather, ecosystems, agriculture and biodiversity. The Subcommittee noted with satisfaction that South Africa had hosted the GEO-IV plenary and ministerial-level meetings in Cape Town from 28 to 30 November 2007.
- 68. The Subcommittee noted with satisfaction that the European Global Monitoring for Environment and Security (GMES) programme not only fostered cooperation within Europe, but also strengthened international cooperation, through such events as "Space for development: the case of GMES and Africa", which had been held in Lisbon on 7 December 2007, prior to the European Union-Africa Summit.

13