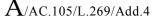
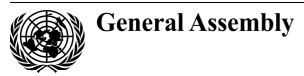
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**Committee on the Peaceful Uses of Outer Space Fiftieth session** Vienna, 6-15 June 2007

### **Draft report**

Addendum

## **Chapter II**

# H. International cooperation in promoting the use of space-derived geospatial data for sustainable development

1. In accordance with the agreement reached by the Committee at its forty-ninth session and endorsed by the General Assembly in paragraph 48 of its resolution 61/111 of 14 December 2006, the Committee considered this item under a multi-year workplan. According to the workplan, at its fiftieth session the Committee would hear presentations by member States and observers, regional and international organizations and informal coordination groups, such as the regional centres for space science and technology education, affiliated to the United Nations, the secretariat of the Group on Earth Observations (GEO), the Committee on Earth Observation Satellites (CEOS), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the Food and Agriculture Organization of the United Nations, on their respective activities related to space-derived geospatial information for sustainable development.

2. The Committee also noted the agreement reached at its forty-ninth session that in 2007 it would identify and assess the interfaces among existing international forums where countries undertook discussions regarding the implementation of space-derived geospatial data infrastructures, in order to avoid duplication of international cooperative efforts. On the basis of that assessment, the Committee would then take a decision on the next steps on the workplan, including more closely defining the scope of the agenda item on space-derived geospatial information.



3. The representatives of Brazil, Canada, Chile, Greece, Japan, Nigeria, the Syrian Arab Republic and the United States made statements under the item. Statements were also made by the representative of UNESCO, as the chairman of the United Nations Inter-Agency Meeting on Outer Space Activities at its twenty-seventh session, and by the representative of CEOS. The representative of the secretariat of GEO also made a statement.

4. Under the item, the Committee heard a presentation entitled "Use of spacederived geospatial data for sustainable development", by K. Radhakrishnan (India).

5. The Committee noted that a number of national, regional and global initiatives, including activities under the framework of GEO, were addressing issues related to the use of space-derived geospatial data for sustainable development.

6. The Committee took note of the report of the Chairman of the United Nations Inter-Agency Meeting on Outer Space Activities on the half-day informal open session of the Inter-Agency Meeting, held in the afternoon of 19 January 2007. The open informal session had addressed the theme "The use of space-derived geospatial data for sustainable development in the United Nations system" which had been agreed upon by the focal points of the Inter-Agency Meeting in view of the new item on space-derived geospatial data for sustainable development on the agenda of the Committee.

7. The Committee noted that representatives from 13 United Nations entities and 29 member States, including the Chairman of the Committee, had exchanged views on the use of space-derived geospatial data for sustainable development in the United Nations system. Presentations had been made by the representatives of the Office for the Coordination of Humanitarian Affairs, the Office for Outer Space Affairs, the Office of the United Nations High Commissioner for Refugees (UNHCR), the United Nations Institute for Training and Research Operational Satellite Applications Programme (UNOSAT) and the World Health Organization. Presentations had also been made on the International Committee on Global Navigation Satellite Systems (ICG) by a representative of the ICG and on the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (SPIDER) by representatives of the Office for Outer Space Affairs and the German Aerospace Centre. Both initiatives were related to activities relevant for the use of space-derived geospatial data. The presentations of the open informal session are available from the website dedicated to the coordination of outer space activities within the United Nations system (www.uncosa.unvienna.org).

8. The Committee noted the plans to establish a United Nations spatial data infrastructure. A compendium and strategy implementation paper on spatial data infrastructure had been developed and was available at http://www.ungiwg.org/unsdi.htm.

9. The Committee noted with satisfaction that the informal open session had provided an excellent overview of the extent to which space-derived geospatial data were already being used by a large number of United Nations organizations and had demonstrated the huge potential of such data relevant to a broad range of activities of the United Nations system.

10. The Committee noted the activities of the Working Group on Information Systems and Services of CEOS and its efforts to enhance international collaboration

and to advocate and promote technologies that enabled discovery, search and access to data and services needed to support scientists, application providers and decision makers.

11. The Committee noted the significant societal benefits of using timely and high-quality space-derived geospatial data for sustainable development in application areas such as agriculture, deforestation assessment, disaster monitoring, drought relief and land management.

12. The view was expressed that there was a "knowledge gap" when extracting information from images. The capacity to build sophisticated earth observation satellites was not matched by the means to extract useful information from those data sources. Spatial data were therefore not exploited to the fullest extent possible.

13. The view was expressed that global open data access policies and global outreach policies were within the areas of action of the Committee and could contribute to addressing that deficiency. Global open data access policies could be implemented through a global consortium of land imaging satellites, which would provide data access to a constellation of satellites free of charge to all countries.

14. The view was expressed that there were existing satellite programmes with data policies that could act as examples for such a consortium; however there was a need for a global forum, such as the Committee, where the issues could be discussed on an equitable basis. The Committee's role should not be limited to data policies, but should also address capacity-building in the use of space-based geospatial data.

15. The view was expressed that open source software to address information needs of developing countries was key to bridging the digital divide. Open source software in combination with open data access policies would promote the use of geospatial data for sustainable development.

16. The view was expressed that the involvement of the Committee would need to take into account existing initiatives and ongoing efforts of standardization in the field of geospatial data to prevent a duplication of activities. There were also other concerns that would need to be taken into account, such as issues related to royalties and copyrights, as well as national security interests.

17. The Committee noted that at its fifty-first session, in accordance with the multi-year workplan agreed at its forty-ninth session, it would invite expert presentations on experiences in the establishment of appropriate national infrastructure for space-derived geospatial data collection, processing and application, including human resource training, technical infrastructure and financial requirements, and institutional arrangements. The Committee also recalled its understanding reached at the forty-ninth session that the workplan could be revised as necessary for 2009 at the Committee's fifty-first session.

#### I. Other matters

18. The representatives of Algeria, Brazil, Burkina Faso, Canada, Chile, China, Colombia, the Czech Republic, Cuba, Ecuador, France, Greece, India, the Libyan Arab Jamahiriya, Nigeria, the Russian Federation, the Syrian Arab Republic, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made

statements under this item. During the general exchange of views, statements relating to this item were also made by representatives of other member States. The representatives of Bolivia and Switzerland, as well as the observers for the African Organization of Cartography and Remote Sensing (AOCRS) and Secure World Foundation (SWF) also made statements.

#### 1. Report of the Office of Internal Oversight Services

19. The Committee took note of the report of the Office of Internal Oversight Services on the inspection of programme management and administrative practices in the Office for Outer Space Affairs (A/AC.105/2007/CRP.3).

20. The Committee noted that this had been the first inspection done of the Office for Outer Space Affairs and that the Office of Internal Oversight Services had concluded that the Office for Outer Space Affairs was well run, cohesive and productive and that it was performing better than the average programme in the United Nations Secretariat. The Committee also noted that the report of the Office of Internal Oversight Services outlined 11 recommendations aimed at further improving the efficient and effective work of the Office for Outer Space Affairs.

21. The Committee commended the Office for Outer Space Affairs and its staff for the excellent evaluation.

## 2. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2008-2009

22. The Committee noted that the General Assembly, in its resolution 61/111, had endorsed the composition of the bureaux of the Committee and its subsidiary bodies for the period 2008-2009, and had agreed that the Committee and its subcommittees should elect their officers at their respective sessions in 2008.

23. The Committee noted that Ciro Arévalo Yepes (Colombia), Suvit Vibulsresth (Thailand) and Filipe Duarte Santos (Portugal) would be elected to the offices of Chairman, First Vice-Chairman and Second Vice-Chairman/Rapporteur of the Committee on the Peaceful Uses of Outer Space respectively, that Aboubekr Seddik Kedjar (Algeria) would be elected to the office of Chairman of the Scientific and Technical Subcommittee and that Vladimir Kopal (Czech Republic) would be elected to the office of Chairman of the period 2008-2009.

#### 3. Future role and activities of the Committee on the Peaceful Uses of Outer Space

24. The Committee recalled that, at its forty-eighth session, in 2005, the Chairman of the Scientific and Technical Subcommittee for the period 2001-2003, Karl Doetsch (Canada), had made a special presentation entitled "Observations on activity of the Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space". The Committee further recalled that, at the same session and on the basis of that presentation, the Chairman of the Committee for the period 2004-2005, Adigun Ade Abiodun (Nigeria), had prepared a non-paper entitled "Planning for future roles and activities of the Committee", for consideration by the Committee. The Committee also recalled that, at its request, a working paper had been prepared by the Secretariat entitled "Future role and activities of the Committee on the Peaceful Uses of Outer Space"

(A/AC.105/L.265), which summarized the presentation, the non-paper and the discussion held in the Committee on this matter at its forty-eighth session, and provided substantive elements for consideration by the Committee.

25. The Committee recalled that in paragraph 47 of its resolution 61/111, the General Assembly had noted with satisfaction that the Committee had agreed to consider, at its fiftieth session, under its agenda item entitled "Other matters", the issue of the future role and activities of the Committee, and noted that the Chairman of the Committee for the period 2006-2007, Gerard Brachet (France), could conduct intersessional, open-ended informal consultations with a view to presenting to the Committee a list of elements that could be taken into consideration at its subsequent session.

26. The Committee had before it a working paper submitted by the Chairman of the Committee, entitled "Future role and activities of the Committee on the Peaceful Uses of Outer Space" (A/AC.105/L.268 and Corr.1). At the 576th meeting, on 13 June 2007, the Chairman of the Committee introduced the main elements of the working paper.

27. The Committee agreed that the working paper provided a good basis for further consideration of a topic of high relevance to the future work of the Committee and expressed its appreciation to the Chairman for his efforts in addressing the broader perspective of the work of the Committee.

28. Some delegations expressed the view that, in considering the future role and activities of the Committee, it was important to safeguard the position of the Committee as an important forum for the international community, in particular its function in providing a platform at the global level for consideration of the role of space technology and its applications for the benefit of developing countries.

29. Some delegations expressed the view that it would be particularly important that the benefits of the use of space technology and its application be linked more closely to international development goals. Those delegations were of the view that there was a need for a closer examination of the links between the work of the Committee and the work carried out by the United Nations bodies responsible for implementing plans of action of global conferences and summits, in particular the United Nations Development Programme (UNDP), and that the Committee should provide UNDP with elements regarding the role of space-based tools in addressing the challenges to human development, for inclusion in its report on development.

30. Some delegations expressed the view that there was a need to strike a balance between the future role of the Scientific and Technical Subcommittee and that of the Legal Subcommittee. Those delegations were of the view that the Legal Subcommittee had made considerable progress in addressing practical legal issues and that a number of initiatives presented in the working paper would benefit from the closer involvement of the Legal Subcommittee.

31. The Committee agreed that the Director of the secretariat of GEO should be invited to report on a regular basis to the Scientific and Technical Subcommittee on progress made in the implementation of the 10-Year Implementation Plan of the Global Earth Observation System of Systems and that the Chairman of ICG should be invited to report on a regular basis to the Scientific and Technical Subcommittee on the activities of ICG.

32. The view was expressed that with regard to the proposal of inviting the Chairman of ICG to report to the Scientific and Technical Subcommittee on delivery of global satellite navigation services, the Legal Subcommittee should also be briefed.

33. Some delegations expressed the view that it was not appropriate for the Legal Subcommittee to consider the work of ICG, because the terms of reference of ICG did not include legal matters.

34. The view was expressed that a possible future working group of the Scientific and Technical Subcommittee to address the concept of rules of the road for future space operations should also establish cooperative links with the Legal Subcommittee.

35. Some delegations expressed the view that since the Agreement Governing the Activities of States on the Moon and Other Celestial Bodies already envisaged the possibility of designating some areas of the Moon and other celestial bodies as international scientific preserves for which special protection arrangements were to be agreed, and since the issue of passenger space transport would need a thorough analysis of related legal aspects, it was desirable that non-governmental organizations working in the legal field should also be invited to consider such aspects and to brief the Legal Subcommittee on them.

36. The view was expressed that the issue of protection and conservation of designated areas on the Moon and other celestial bodies needed to include, in particular, the impact of human presence on the Moon.

37. Some delegations expressed the view that the High-level Panel on Space Exploration, held during the session, had provided insights on cooperative exploration efforts of relevance to both space-faring countries and non-space-faring countries that could contribute to the consideration of the future role and activities of the Committee.

38. Some delegations expressed the view that it was important to pay particular attention to the needs of developing countries for capacity-building and training. The consideration of the future role and activities of the Committee would therefore benefit from the work carried out under current items on the agenda of the Committee, such as the item on "Space and society: space and education".

39. The Committee agreed that some of the issues addressed in the working paper, in particular on long-term sustainability of space activities, protection and conservation of designated areas of the Moon and other celestial bodies, and issues related to the development of passenger space transport, would benefit from further analysis by relevant international organizations. The Committee agreed that relevant organizations should be identified and invited to report to the Committee based on certain criteria to be developed.

40. The Committee agreed that at its fifty-first session, in 2008, it should continue its consideration of the future role and activities of the Committee.

#### 4. Membership of the Committee

41. The Committee noted the applications of Bolivia and Switzerland for membership of the Committee (see A/AC.105/2007/CRP.12 and A/AC.105/2007/CRP.7).

42. The Committee agreed to recommend to the General Assembly at its sixtysecond session, in 2007, that Bolivia and Switzerland should become members of the Committee.

#### 5. Observer status

43. The Committee noted that two intergovernmental organizations, AOCRS and the European Organisation for Astronomical Research in the Southern Hemisphere, and one non-governmental organization, SWF, had applied for observer status with the Committee and that the related correspondence and statutes of those organizations had been made available during the current session of the Committee (see A/AC.105/2007/CRP.9, A/AC.105/2007/CRP.8 and A/AC.105/2007/CRP.10).

44. The Committee decided to recommend the granting of permanent observer status to AOCRS.

45. While the Committee noted the interest of the European Organisation for Astronomical Research in the Southern Hemisphere, it decided not to recommend the granting of permanent observer status to that organization as it had not been present at the Committee's session to respond to the questions of members of the Committee. The Secretariat was requested to inform the European Organisation for Astronomical Research of the Committee's decision.

46. The Committee agreed that SWF should be invited to resubmit its application and to participate as an observer at the forty-fifth session of the Scientific and Technical Subcommittee, the forty-seventh session of the Legal Subcommittee and the fifty-first session of the Committee. The Committee requested the Secretariat to inform SWF of its decision.

47. The view was expressed that SWF was a rather young organization and that the Committee should better acquaint itself with the organization's activities before taking a decision on granting it observer status.

48. The view was expressed that in granting permanent observer status the guidelines established by the Committee at its thirty-third session, in 1990, should be applied equally. That delegation was of the view that private sector organizations could provide new avenues for cooperation, particularly with developing countries.

49. The view was expressed that the rules applying to granting observer status needed to be reviewed in view of the fact that the framework in which space activities were taking place had considerably changed since the Committee's thirty-third session.

#### 6. Symposium on Space and Water

50. As agreed during the forty-ninth session of the Committee, a symposium entitled "Space and Water" was held on 11 June 2007. The Symposium explored the role of space technology applications in addressing global challenges to the world's water resources and discussed strategies and tools to ensure wider access to safe,

clean and sustainable water. The Symposium also discussed how space-based tools and solutions could help decision makers with implementing sustainable use of water resources to demonstrate the opportunities offered for monitoring and managing water resources through space technologies and international cooperation. The moderator for the symposium was L. Beckel (Austria).

51. The following presentations were made during the symposium: "Space-based data and inter-jurisdictional water resources management" by W. Lichem (Austria), "Space and water for life" by Y. Berenguer (UNESCO), "Role of space-based systems for water resources management" by K. Radhakrishnan (Indian Space Research Organisation (ISRO)), "Advances in systemic observations of surface water and the marine environment in Africa" by A. Belward (European Commission) and "Latin American perspective on the use of space technology for water resources management" by C. Arevalo (Colombia). The presentations are available at http://www.unoosa.org/oosa/COPUOS/2007/symposium.html.

52. The Committee noted with appreciation that the Symposium had offered useful insights for the members of the Committee in the understanding of technical opportunities arising from space technology for water resources management, in highlighting examples of national and international achievements in cooperation on the use of space technology for sustainable water resources management.

#### 7. High-level Panel on Space Exploration

53. As agreed during the forty-ninth session of the Committee, and in accordance with paragraph 49 of General Assembly resolution 61/111, a High-level Panel on Space Exploration was held on 12 June 2007. The High-level Panel provided an opportunity for members of the Committee to discuss the motivations for and aspects of ongoing and planned space exploration activities and the possible future role the United Nations system could play in providing a forum for space-faring and space-using countries alike to consider space exploration related issues.

54. Presentations were made by J. B. Higgins (National Aeronautics and Space Administration, United States), A. A. Abiodun (on behalf of the National Space Research and Development Agency, Nigeria), C. de Cooker (European Space Agency (ESA)), Chang-Woo Kim (Ministry of Science and Technology, Republic of Korea), V. Mironov (Keldyish Center Federal State Enterprise, Russian Federation), Y. V. Sobakinskikh (Federal State Enterprise TSENKI, Russian Federation), M. Othman (National Space Agency, Malaysia), B. N. Suresh (ISRO, India) and Zhang Wei (China National Space Administration). The presentations are available at http://www.unoosa.org/oosa/COPUOS/2007/panel.html.

55. The Committee also took note of the document entitled "The Global Exploration Strategy: framework for coordination", which had been produced by 14 space agencies and distributed to the Committee in document A/AC.105/2007/CRP.6.

56. The Committee noted with appreciation that the High-level Panel had offered insights into ongoing national and global space exploration initiatives, which would be useful during the discussion on the future role and activities of the Committee. One particular question concerned the possible link between the Committee and the Global Exploration Strategy.

#### 8. Exhibition on "50 Years of Space Achievements"

The Committee noted with appreciation that more than 30 Member States, 57. United Nations organizations and international organizations had contributed to a multinational exhibition on the theme "50 Years of Space Achievements" held from 6 to 29 June 2007 in the Rotunda of the Vienna International Centre. Exhibitors included Algeria, Austria, Canada, China, Germany, Hungary, India, Indonesia, Italy, Japan, Lebanon, Malaysia, Morocco, Namibia, the Russian Federation, Saudi Arabia, Spain, Thailand, the United Kingdom, the United States, ESA, the International Telecommunication Union, the United Nations Environment Programme, UNHCR, the Office for Outer Space Affairs, United States Geological Survey (USGS), the Committee on Space Research, the International Astronautical Federation, the International Society for Photogrammetry and Remote Sensing, the International Heliophysical Year (2007) and the United Nations Inter-Agency Meeting on Outer Space Activities. A multi-media bus on "Space weather" of the "Space Weather and Europe - an Educational Tool with the Sun" project was located in the Plaza of the Vienna International Centre.

#### J. Schedule of work of the Committee and its subsidiary bodies

58. The Committee agreed on the following tentative timetable for its session and those of its subcommittees in 2008:

	Date	Location
Scientific and Technical Subcommittee	11-22 February 2008	Vienna
Legal Subcommittee	31 March-11 April 2008	Vienna
Committee on the Peaceful Uses of Outer Space	11-20 June 2008	Vienna