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**Committee on the Peaceful
Uses of Outer Space**
Scientific and Technical Subcommittee
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Draft report

Addendum

I. 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

1. In accordance with General Assembly resolution 64/86, the Scientific and Technical Subcommittee considered agenda item 15, "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 a single issue/item for discussion.
2. The representatives of Colombia, Saudi Arabia and Venezuela (Bolivarian Republic of) made statements on agenda item 15. The observer for Azerbaijan made a statement. The observer for the International Telecommunication Union (ITU) also made a statement.
3. The Subcommittee welcomed the information provided in the annual report for 2009 of the ITU Radiocommunication Bureau on the use of the geostationary satellite orbit and other orbits (www.itu.int/itu-R/space/snl/report), as well as other



documents referred to in conference room paper A/AC.105/C.1/2010/CRP.9. The Subcommittee invited ITU to continue submitting reports to it.

4. The representative of the Bolivarian Republic of Venezuela, speaking on behalf of the Group of Latin American and Caribbean States, expressed the interest of the Group's members in the rational, efficient and equitable use of the geostationary orbit and the necessity of finding the means and tools to implement an effective mechanism that would lead to concrete results.

5. Some delegations were of the view that the geostationary orbit was a limited natural resource that risked becoming saturated, that its exploitation should be rationalized and that it should be 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.

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

7. The view was expressed that the geostationary orbit provided unique potential for access to communication and information, in particular for assisting developing countries in implementing social programmes and educational projects, and in providing medical assistance. That delegation was of the view that it was important to use the geostationary orbit in compliance with international law, in accordance with the decisions of ITU and within the legal framework established in the relevant United Nations treaties.

8. Some delegations were of the view that this item should remain on the agenda of the Subcommittee in order to ensure the use of the geostationary orbit in accordance with international law.

9. The view was expressed that a closer link should be established between the Scientific and Technical Subcommittee and the Legal Subcommittee with the aim of promoting international norms relevant to matters being considered by the Scientific and Technical Subcommittee under this item, as well as to matters related to space debris and the use of nuclear power sources in outer space.

II. Draft provisional agenda for the forty-eighth session of the Scientific and Technical Subcommittee

10. In accordance with General Assembly resolution 64/86, the Scientific and Technical Subcommittee considered agenda item 16, "Draft provisional agenda for the forty-eighth session of the Scientific and Technical Subcommittee". The Working Group of the Whole, convened pursuant to paragraph 9 of that resolution, considered the draft provisional agenda for the forty-eighth session of the Subcommittee.

11. At its [...] meeting, on [...] February, the Subcommittee endorsed the recommendations of the Working Group of the Whole concerning the draft

provisional agenda for the forty-eighth session of the Subcommittee, contained in annex I to the present report.

12. The Subcommittee noted that the Secretariat had scheduled the forty-eighth session of the Subcommittee to be held from 7 to 18 February 2011.

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

13. In accordance with General Assembly resolution 64/86, the Subcommittee considered agenda item 7, "Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment".

14. The representatives of Canada, China, Germany, India, Italy, Japan, Malaysia, the Russian Federation and the United States made statements under agenda item 7.

15. The Subcommittee heard the following scientific and technical presentations:

(a) "CBERS and HJ-1A/1B data applications and international cooperation", by the representative of China;

(b) "Forest and environmental monitoring activities in the climate change process", by the representative of Germany;

(c) "OCEANSAT-2 mission", by the representative of India;

(d) "Formalizing South Africa's national space programme", by the representative of South Africa;

(e) "International cooperation in operational environmental satellites: the US experience", by the representative of the United States;

(f) "Use of remote sensing to improve water management in Saudi Arabia", by the observer for the Prince Sultan Bin Abdulaziz International Prize for Water (PSIPW).

16. In the course of the discussions, delegations reviewed national and cooperative programmes on remote sensing. Examples were given of national, bilateral, regional and international programmes to further socio-economic and sustainable development, notably in the following areas: agriculture and fishery; climate change monitoring; detecting illegal crops and opium poppy cultivation; early warning of and response to natural and man-made disasters; geology; humanitarian relief; hydrology; managing ecosystems and natural resources; mapping biodiversity resources, coastal zones, land use, wasteland and wetlands; monitoring air quality, desertification, droughts, food security, deforestation, the ionosphere and weather; oceanography; rural development and urban planning; and search and rescue efforts.

17. The Subcommittee noted with satisfaction that a growing number of developing countries were actively developing and deploying their own remote-sensing satellite systems and utilizing space-based data to advance socio-economic development.

18. The Subcommittee noted that the increased convergence of space-based data, geographic information systems and GNSS technologies was generating valuable information for policy- and decision-making.

19. The Subcommittee recognized the important role played by the Asia-Pacific Regional Space Agency Forum (APRSAF), the Asia-Pacific Space Cooperation Organization (APSCO), the Committee on Earth Observation Satellites (CEOS), the Group on Earth Observation (GEO), the Global Monitoring for Environment and Security (GMES) and 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.

20. The Subcommittee noted the progress made by GEO in the implementation of the Global Earth Observation System of Systems (GEOSS) and further noted that, at its sixth plenary session, held in Washington, D.C., on 17 and 18 November 2009, GEO had adopted the strategic targets for implementing GEOSS by 2015 and data-sharing implementation guidelines.

21. The Subcommittee noted the increased availability of space-based data at little or no cost, including those provided by the China-Brazil Earth resources satellites, the Greenhouse Gases Observing Satellite of Japan and the United States Landsat image archive.

IV. Long-term sustainability of outer space activities

22. In accordance with General Assembly resolution 64/86, the Scientific and Technical Subcommittee considered agenda item 14, “Long-term sustainability of outer space activities”, under the workplan contained in the report of the Committee at its fifty-second session.¹

23. The representatives of Bolivia (Plurinational State of), Canada, China, Colombia, France, Germany, India, Italy, Japan, Nigeria, the Republic of Korea, Romania, the Russian Federation, Saudi Arabia, the United States and Venezuela (Bolivarian Republic of) made statements on the item.

24. The Subcommittee heard a presentation entitled “Space situational awareness sharing update”, by the representative of the United States.

25. The Subcommittee had before it the following:

(a) A working paper submitted by France on the long-term sustainability of outer space activities (A/AC.105/C.1/L.303);

(b) A conference room paper on the long-term sustainability of outer space activities: preliminary reflections (A/AC.105/C.1/2010/CRP.3).

26. The Subcommittee recalled the agreement reached by the Committee at its fifty-second session and endorsed by the General Assembly in paragraphs 8 and 10 of its resolution 64/86, that the Subcommittee should include, starting from its current session, a new agenda item entitled “Long-term sustainability of outer space

¹ *Official Records of the General Assembly, Sixty-fourth Session, Supplement No. 20 (A/64/20)*, para. 161.

activities” under a multi-year workplan, taking into account the concerns of all countries, in particular those of developing countries.

27. The Subcommittee recalled the importance of ensuring the safe and sustainable future use of outer space and noted, in accordance with the workplan related to this item, that a working group should be established to support the preparation of a report on the long-term sustainability of outer space activities, the examination of measures that could enhance the long-term sustainability of such activities and the preparation of a set of best-practice guidelines.

28. The Subcommittee agreed that any best-practice guidelines that may be developed should be implemented on a voluntary basis and be focused on practical and prudent short- and medium-term measures that could be implemented in a timely manner.

29. The Subcommittee recognized that, should such guidelines be developed, adequate provisions should be made to enable the guidelines to be reviewed and updated in the future in the light of experiences gained from their implementation and of new requirements that might emerge from future developments in the use of outer space.

30. At its [...] meeting, on 18 February 2010, the Subcommittee established the Working Group on the Long-term Sustainability of Outer Space Activities. The Subcommittee agreed that consultations should be held among delegations to identify a Chair for the Working Group.

31. The Subcommittee requested that, in consultation with the Chair of the Committee, the Working Group be given time to meet during the fifty-third session of the Committee, in June 2010, with interpretation services into the six languages of the United Nations, with a view to further developing its terms of reference and a method of work.

32. The Subcommittee agreed that the Working Group should examine the long-term sustainability of outer space activities in all its aspects, consistent with the peaceful uses of outer space, and avail itself of the progress made within existing entities, including but not limited to the other working groups of the Subcommittee, the Conference on Disarmament, the International Telecommunication Union, the Inter-Agency Space Debris Coordination Committee, the International Organization for Standardization, the World Meteorological Organization and the International Space Environment Service. The Subcommittee agreed that the Working Group should avoid duplicating the work being done within those bodies and instead identify areas of concern for the long-term sustainability of outer space activities that are not covered by them. [The Subcommittee also agreed that the Working Group should consider organizing an exchange of information with the commercial space industry to understand the views of that community.]

33. The Subcommittee noted that States were already contributing to the long-term sustainability of outer space activities by implementing the Space Debris Mitigation Guidelines of the Committee and the Safety Framework for Nuclear Power Source Applications in Outer Space.

34. Some delegations stressed the need to take into consideration the contribution of space-based-systems to sustainable development and avoid any measures that would limit access to space by nations with emerging space capabilities.

35. The view was expressed that efforts to ensure the long-term sustainability of outer space activities should be considered in the wider context of sustainable development.

36. Some delegations expressed the view that, should an agreement to develop guidelines on safe space operations be reached, such guidelines should take into consideration current policies, principles, procedures, regulations, standard practices and guidelines; maintain or improve the safety of spaceflight operations; and protect the space environment without imposing unacceptable or unreasonable costs.

37. Some delegations stressed that any measures or set of guidelines that may be recommended should be consistent with international law and that the regulation of space activities remained the responsibility of States.

38. The view was expressed that the Subcommittee should not seek to develop new legal regimes, but rather encourage greater adherence to the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies,² the Agreement on the Rescue of Astronauts, the Return of Astronauts and the Return of Objects Launched into Outer Space,³ the Convention on International Liability for Damage Caused by Space Objects⁴ and the Convention on Registration of Objects Launched into Outer Space.⁵

39. The view was expressed that the Subcommittee should not seek to create a global space traffic management system during its consideration of this agenda item.

40. The view was expressed that it was necessary to recognize, in the context of this agenda item, the concern relating to security guarantees, with a view to providing assurances of continued access to outer space for peaceful purposes.

41. The view was expressed that the scope of the discussion of long-term sustainability of outer space activities should take into account the needs of developing countries, particularly with respect to small satellites.

42. The view was expressed that this item should not serve as a pretext for States that were able to develop their space capabilities without controls, resulting in the challenges faced today, to restrict or impose controls on other States wishing to exercise their legitimate right to use the same technology for their national benefit.

43. The view was expressed that it was necessary to clearly define the purpose and range of the work to be conducted under this item and the expected outcomes, including its relationship to the draft European code of conduct for outer space activities, to the concepts “space traffic management” and “transparency and confidence-building measures” and to the Space Debris Mitigation Guidelines of the Committee.

44. The view was expressed that a coordination mechanism should be established to allow for close interaction with the Presidency of the European Union on the evolution of the draft European code of conduct for outer space activities.

² United Nations, *Treaty Series*, vol. 610, No. 8843.

³ *Ibid.*, vol. 672, No. 9574.

⁴ *Ibid.*, vol. 961, No. 13810.

⁵ *Ibid.*, vol. 1023, No. 15020.

45. The view was expressed that the Subcommittee should identify an appropriate mechanism to cooperate with other entities and organizations.
46. The view was expressed that any mechanism for cooperating with other entities and organizations should be consistent with the established practices of the Committee.
47. The view was expressed that Governments bore international responsibility for national activities and that this responsibility was not transferable.
48. The Subcommittee noted that a potential collision had been successfully avoided in early January 2010 following the provision of information by the United States Joint Space Operations Command to the Government of Nigeria relating to the anticipated collision course of an object catalogued as space debris.
49. The view was expressed that satellite operators should de-orbit their satellites prior to losing control over them in order to prevent collisions with other objects and subsequent proliferation of space debris.
50. The view was expressed that the results, procedures and lessons learned of the data centre established by the Space Data Association, composed of interested private-sector satellite operators, should be taken into account when considering the long-term sustainability of outer space activities. The data centre was established to serve as an interactive repository for commercial satellite orbit, manoeuvre and payload frequency information to promote the safety of space operations by encouraging coordination and communication among its participating members.