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Committee on the Peaceful

Uses of Outer Space

Sixty-fourth session

Vienna, 25 August–3 September 2021

Draft report

Addendum

Chapter II

Recommendations and decisions

B. Report of the Scientific and Technical Subcommittee on its fifty-eighth session

1. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its fifty-eighth session ([A/AC.105/1240](#)), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution [75/92](#).
2. The Committee expressed its appreciation to Natália Archinard (Switzerland) for her able leadership as Chair during the fifty-eighth session of the Subcommittee.
3. The representatives of Algeria, Austria, Chile, China, Germany, Indonesia, Italy, Japan, Mexico, the Russian Federation, Switzerland, the United States and Venezuela (Bolivarian Republic of) made statements under the item. The representative of Costa Rica made a statement on behalf of the Group of 77 and China. During the general exchange of views, statements relating to the item were also made by other member States.
4. The Committee heard the following presentations:
 - (a) “Results of the OPS-SAT nanosatellite mission”, by the representative of Austria;
 - (b) “China geophysical field satellite programme: achievements and prospects”, by the representative of China;
 - (c) “Space environment effects on spacecraft and how to respond”, by the representative of China;
 - (d) “IADC activities overview and latest updates of IADC documents”, by the representative of Germany;



(e) “JAXA’s initiative to mitigate space debris for safety satellite operations: RABBIT (risk avoidance assist tool based on debris collision probability)”, by the representatives of Japan;

(f) “ClearSpace-1: On-orbit services to enable a thriving, resilient and sustainable space industry”, by the representative of Switzerland.

1. United Nations Programme on Space Applications

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

5. The Committee took note of the discussion of the Subcommittee under the item on the activities of the United Nations Programme on Space Applications, as reflected in the report of the Subcommittee ([A/AC.105/1240](#), paras. 40–61).

6. The Committee welcomed the fiftieth anniversary of the United Nations Programme on Space Applications, which was established in 1971, and, in that connection, the Committee recognized the unique and continuous contribution made by the Programme in promoting and supporting the capacity-building activities of Member States, in particular emerging spacefaring nations. The Committee also noted with appreciation the video commemorating the fiftieth anniversary of the Programme.

7. The Committee took note of the activities of the Programme carried out in 2020 and 2021 and those planned for the remainder of 2021, as presented in the report of the Subcommittee ([A/AC.105/1240](#), paras. 57–59).

8. The Committee noted that the Government of Japan, through the Kyushu Institute of Technology, had continued to provide long-term fellowship programme opportunities for students from developing countries under the United Nations/Japan Long-term Fellowship Programme on Nanosatellite Technologies.

9. The Committee noted that the Programme continued to implement the Access to Space for All initiative, which was focused on developing the capacity of Member States to access the benefits of space and which offered to its partners research opportunities to develop the technologies needed to send hardware into space, access to unique ground and orbital facilities for experiments in microgravity and hypergravity, in space exploration and access to space data and training on their use, including the use of astronomical data.

10. The Committee noted the Drop Tower Experiment Series, which was a fellowship programme of the Office for Outer Space Affairs undertaken in collaboration with the Centre of Applied Space Technology and Microgravity and the German Aerospace Center (DLR), in which students could study microgravity by performing experiments in a drop tower. In the seventh cycle of the fellowship programme, a team from Universidad Católica Boliviana, Plurinational State of Bolivia, had been awarded the fellowship through a competitive selection process.

11. The Committee noted the continued collaboration between the Office for Outer Space Affairs and the Government of Japan, in collaboration with the Japan Aerospace Exploration Agency (JAXA), in implementing the United Nations/Japan Cooperation Programme on CubeSat Deployment from the International Space Station Japanese Experiment Module (Kibo), known as “KiboCUBE”. The second winner under the Programme, a team from Guatemala, had launched its first CubeSat, Quetzal-1, in April 2020. CubeSats developed by teams from Mauritius, Indonesia and the Republic of Moldova, which had been selected for the third and fourth rounds of the Programme, would be launched after the first two rounds. The final selection for the fifth round had been announced on 10 December 2020, with the Central American Integration System (SICA) selected as the winner.

12. The Committee noted the continued cooperation between the Office for Outer Space Affairs and the Government of China (through the China Manned Space Agency) in implementing the United Nations/China cooperation on the utilization of the China space station initiative under the United Nations Programme on Space

Applications and the Human Space Technology Initiative. The first opportunity to conduct scientific experiments on board the China space station had been open to all Member States, in particular developing countries. As an outcome of the application and selection process, nine projects were selected for implementation on board the China space station in the first cycle. The nine projects involved 23 institutions from 17 Member States in the Asia-Pacific region, Europe, Africa, North America and South America.

13. The Committee noted the Hypergravity Experiment Series (HyperGES) fellowship programme, established through a collaboration between the United Nations and the European Space Agency under the Access to Space for All initiative. The programme facilitates access to the distinctive infrastructure at the European Space Research and Technology Centre, namely, the Large Diameter Centrifuge Facility. In the first cycle of the programme, a team from Thailand will study the effects of gravity on watermeal in space. Watermeal is the smallest and fastest-growing plant on Earth and could serve as a source of food and oxygen for future space exploration.

14. Some delegations expressed their appreciation to the Office for Outer Space Affairs for the manner in which the activities of the United Nations Programme on Space Applications had been implemented, in particular as the funds available in 2020 were limited. Those delegations were also of the view that the financial resources available to the Programme remained limited, and they appealed to the donor community to support the Programme through voluntary contributions.

15. The Committee requested the Office for Outer Space Affairs to continue to work with the Scientific and Technical Subcommittee on defining the priorities of the Programme.

16. The Committee noted that the Office for Outer Space Affairs continued to closely collaborate with the regional centres for space science and technology education, affiliated to the United Nations, namely the African Regional Centre for Space Science and Technology Education – in English Language, the African Regional Centre for Space Science and Technology – in French Language; the Centre for Space Science and Technology Education in Asia and the Pacific, the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, the Regional Centre for Space Science and Technology Education for Western Asia and the Regional Centre for Space Science and Technology Education in Asia and the Pacific (China). In that connection, the Committee noted with appreciation that the host countries of the regional centres for space science and technology education, affiliated to the United Nations, were providing significant financial and in-kind support to the centres.

(b) International Satellite System for Search and Rescue

17. The Committee noted with satisfaction that the International Satellite System for Search and Rescue (COSPAS-SARSAT) currently had 43 member States and 2 participating organizations and that other entities were also interested in becoming associated with the programme in the future. The Committee noted with appreciation that the worldwide coverage of emergency beacons, carried on vessels and aircraft and by individual users around the world, had been made possible by the space segment provided by Canada, France, India, the Russian Federation and the United States, along with the European Organization for the Exploitation of Meteorological Satellites and the European Union, as well as by the ground-segment contributions of 30 additional countries. The Committee also noted that in 2019, alert data from the system had helped to save 2,774 lives in at least 1,032 search and rescue events worldwide.

2. Space technology for sustainable socioeconomic development

18. The Committee took note of the discussion of the Subcommittee under the item on space technology for sustainable socioeconomic development, as reflected in the report of the Subcommittee ([A/AC.105/1240](#), paras. 67–76).

19. The Committee took note of the report of the Working Group of the Whole of the Scientific and Technical Subcommittee, reconvened under the chairmanship of Umamaheswaran R. (India) as Acting Chair ([A/AC.105/1240](#), annex I).

20. Some delegations expressed the view that space science and technology and their applications were essential to effectively addressing current and future challenges to social and economic development and sustainability, such as natural disasters, food security, climate change and natural resource security, and noted that space activities were crucial to realizing the Sustainable Development Goals, in particular as part of efforts to support sustainable economic growth, improve quality of life and manage the global environment. The delegations expressing that view were also of the view that it was important to ensure that the Office was equipped with the necessary resources to assist a greater number of countries in gaining access to the benefits of space science and technology and their applications.

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

21. 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.105/1240](#), paras. 77–85).

22. The Committee noted that remote sensing data were used at the international and regional levels through initiatives of States to support sustainable socioeconomic development, in particular for the benefit of developing countries.

23. In the course of the discussions, delegations reviewed cooperation programmes at the national and international levels and highlighted key areas in which remote sensing data cooperation programmes played a critical role in well-informed decision-making. Examples included mapping and border security control, land-use planning, property rights identification and related natural resources management, forestry management and hyperspectral mineral and vegetation mapping tools, meteorology and severe weather forecasting, tele-education and tele-health, disaster management, environmental protection, oceanographic monitoring, climate change, air quality monitoring for aerosols and pollutants, including monitoring of essential climate variables and ozone loss, promoting sustainable development, ecosystems management, hydrology, sea surface temperature and level monitoring, glacier mapping and studies, crop and soil monitoring for irrigation and groundwater detection, precision agriculture, space weather monitoring and early warning systems and animal movement monitoring.

24. The Committee noted the strong commitment of many Member States to supporting important initiatives such as the Group on Earth Observations and the Committee on Earth Observation Satellites, which played an important role in improving the sharing of remote sensing data and worldwide access to data.

4. Space debris

25. 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.105/1240](#), paras. 86–109).

26. The Committee endorsed the decisions and recommendations of the Subcommittee on the item ([A/AC.105/1240](#), paras. 108–109).

27. The Committee 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 instrumental for the mitigation of space debris, and urged those countries that had not yet done so to consider implementing the Guidelines on a voluntary basis.

28. The Committee noted with appreciation that many States and international intergovernmental organizations were already implementing space debris mitigation measures consistent with the Space Debris Mitigation Guidelines of the Committee and/or the IADC Space Debris Mitigation Guidelines, and that other States had developed their own space debris mitigation standards based on those guidelines.

29. In addition, the Committee noted that some States were using the Space Debris Mitigation Guidelines of the Committee and/or the IADC Space Debris Mitigation Guidelines, the European Code of Conduct for Space Debris Mitigation, ISO standard 24113:2011 (Space systems: space debris mitigation requirements) and ITU recommendation ITU-R S.1003 (Environmental protection of the geostationary-satellite orbit) as reference points in their regulatory frameworks for national space activities. The Committee also noted that some States had cooperated in the space surveillance and tracking support framework funded by the European Union and in the ESA space situational awareness programme.

30. The Committee also noted that an increasing number of States were adopting concrete measures to mitigate space debris, including the improvement of the design of launch vehicles and spacecraft, the de-orbiting of satellites, passivation, life extension, end-of-life operations and the development of specific software and models for space debris mitigation.

31. The Committee further noted that IADC, whose initial work had served as the basis for the Space Debris Mitigation Guidelines of the Committee, had updated its own Space Debris Mitigation Guidelines.

32. The Committee noted that the issue of space debris and its proliferation continued to be a cause for concern because space debris hindered the future exploration and use of outer space.

33. 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.

34. Some delegations expressed the view that it was important that new space actors were not burdened as a result of the historical activities of established space actors.

35. Some delegations expressed the view that addressing the challenges posed by the placement of megaconstellations in low-Earth orbit, including those related to the sustainable use of orbit and frequencies, should be made a priority in the work of the Committee.

36. The view was expressed that, since orbital debris was the consequence of the past and ongoing operations of major spacefaring nations, those nations should accept the primary responsibility both for alleviating the situation and for assisting the developing and emerging spacefaring nations technically and financially in meeting space debris mitigation guidelines.

37. The view was expressed that transparency in the licensing of space remediation activities, such as on-orbit servicing and orbital debris removal, would contribute to ensuring transparency and confidence-building in space activities.

38. The view was expressed that a worldwide network for the laser ranging of space debris should be developed to improve orbital predictions, as it would be useful for avoidance manoeuvres, conjunction warnings and removal missions.

5. Space-system-based disaster management support

39. 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.105/1240, paras. 110–125).

40. The Committee noted the importance of space-based information for disaster management and emergency response, utilizing remote sensing data and Earth observation satellites for developing multi-hazard early warning systems and disaster impact analysis for all types of natural disasters, including for monitoring the COVID-19 pandemic.

41. The Committee welcomed the activities organized by the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), which supported the development of capacity to use all types of space-based information in support of the full disaster management cycle. In that regard, the Committee took note of the UN-SPIDER activities carried out in 2020, with the continued support of its network of partners, as well as the benefits of the UN-SPIDER knowledge portal (www.un-spider.org), a web-based platform for information, communication and process support that fostered the exchange of information, the sharing of experiences, capacity-building and technical advisory support and services.

42. The Committee noted that UN-SPIDER had expanded its network of regional support offices by integrating two additional organizations into the network: the Federal University of Santa Maria in Brazil and the Ben-Gurion University of the Negev in Israel. In that regard, the Committee noted with appreciation that the UN-SPIDER regional support offices greatly contributed to the programme's activities in the areas of capacity-building, institutional strengthening and knowledge management.

43. Some delegations expressed the view that in order to strengthen disaster preparedness and emergency response at the national level, the Office for Outer Space Affairs should increase the capacity-building activities of UN-SPIDER by offering more technical advisory missions and training programmes, in particular to developing countries.

44. The Committee noted with appreciation the voluntary contributions made to the Office for Outer Space Affairs and its UN-SPIDER programme by member States, including the cash contributions from China and Germany, and again encouraged other member States to provide to the activities and programmes of the Office, including UN-SPIDER, all necessary support on a voluntary basis, including increased financial support, to enable it to better respond to Member States' requests for assistance and to fully carry out its workplan in the coming years.

6. Recent developments in global navigation satellite systems

45. The Committee took note of the discussion of the Subcommittee under the item on recent developments in GNSS, as reflected in the report of the Subcommittee ([A/AC.105/1240](#), paras. 126–146).

46. The Committee noted with appreciation the work of the International Committee on Global Navigation Satellite Systems (ICG), the latest developments in the field of GNSS technologies and new GNSS applications.

47. The Committee noted the work of ICG aimed at creating an interoperable, multi-GNSS space service volume, which would enable improved navigation for future operations beyond geosynchronous earth orbit (GEO) to lunar missions.

48. The Committee noted the efforts by the Office for Outer Space Affairs in promoting the use of GNSS through its capacity-building and information dissemination initiatives, in particular in developing countries, as well as the role of the Office as the executive secretariat of ICG in coordinating the planning of meetings of ICG and its Providers' Forum, in conjunction with sessions of the Committee and its subsidiary bodies.

49. The Committee noted that the fifteenth meeting of ICG and the twenty-fourth meeting of the Providers' Forum would be hosted by the Office for Outer Space Affairs and be held in Vienna from 27 September to 1 October 2021.

7. Space weather

50. The Committee took note of the discussion of the Subcommittee under the item on space weather, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 147–165).

51. The Committee noted that space weather, which was caused by solar variability, was an international concern owing to the potential threat it posed to space systems, human space flight and ground- and space-based infrastructures upon which society increasingly relied. As such, it needed to be addressed in a global manner, through international cooperation and coordination, in order to be able to predict potentially severe space weather events and mitigate their impact to guarantee the long-term sustainability of outer space activities.

52. The Committee noted a number of national and international activities undertaken in the fields of research, training and education to improve the scientific and technical understanding of the adverse effects of space weather and thus strengthen global resilience to it.

53. The Committee noted with appreciation that the Expert Group on Space Weather of the Scientific and Technical Subcommittee had held meetings on the margins of the fifty-eighth session of the Subcommittee, in 2021, as well as during the intersessional period. The Committee welcomed and looked forward to the Expert Group submitting a draft final report for consideration at the fifty-ninth session of the Subcommittee, to be held in 2022.

8. Near-Earth objects

54. 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.105/1240, paras. 166–184).

55. The Committee noted with appreciation the work done by the International Asteroid Warning Network (IAWN) and the Space Mission Planning Advisory Group (SMPAG) with a view to ensuring that all nations, in particular developing countries with limited capacity to predict and mitigate an impact of a near-Earth object, were aware of potential threats.

56. The Committee noted the importance of national efforts and activities aimed at developing capabilities in the discovery, observation, early warning and mitigation of potentially hazardous near-Earth objects that contributed to strengthening international collaboration and information-sharing, and in that regard highlighted the importance of contributing to the work of IAWN and SMPAG.

57. The Committee noted that IAWN had conducted a coordinated campaign to observe the potentially hazardous asteroid 99942 Apophis, intended to test global observation and modelling capabilities, with contributions by the signatories to the IAWN Statement of Intent and others, that SMPAG had proposed the idea of performing an exercise aimed at testing its real-world capabilities to support planetary defence in the case of an actual threat, and that the Italian Space Agency would organize a splinter meeting to evaluate the proposal, define timelines for the exercise and identify contributing agencies.

58. The Committee noted that, should a credible threat of impact be identified by the worldwide network of astronomical observatories, the best information available on that threat would be provided by IAWN and disseminated to all Member States through the Office for Outer Space Affairs.

59. The Committee noted that further information on the meetings of IAWN and SMPAG, to which the Office for Outer Space Affairs served as the permanent secretariat, had been made available on their web pages, at <http://iawn.net> and <http://smpag.net>, respectively.

60. The Committee noted the successful holding of the seventh International Academy of Astronautics (IAA) Planetary Defence Conference, hosted by the Office for Outer Space Affairs, in cooperation with ESA, in a virtual format from 26 to 30 April 2021, and that the eighth IAA Planetary Defence Conference was planned to be hosted by the Office for Outer Space Affairs at the Vienna International Centre in 2023, in cooperation with its partners and the host country, Austria.

61. The Committee noted that the next meeting of the IAWN steering committee was planned to be held in October 2021, in a virtual format, and that the next meeting of SMPAG was planned to be held on 13 and 14 October 2021, also in a virtual format.

9. Long-term sustainability of outer space activities

62. The Committee took note of the discussion by the Subcommittee under the item on the long-term sustainability of outer space activities, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 185–211).

63. The Committee had before it the following:

(a) Conference room paper by Australia, Belgium, Canada, France, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Nigeria and the United States containing a proposal for the terms of reference, methods of work and workplan for the establishment of the new Working Group on the Long-term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee (A/AC.105/2021/CRP.10);

(b) Conference room paper by China containing a proposal for the terms of reference, methods of work and workplan for the newly established Working Group on the Long-term Sustainability of Outer Space Activities (A/AC.105/2021/CRP.17);

(c) Conference room paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities containing a proposal for the terms of reference, methods of work and workplan for the Working Group on the Long-Term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee (A/AC.105/2021/CRP.18);

(d) Non-paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities entitled “Elements for the terms of reference, methods of work and workplan of the Working Group on the Long-term Sustainability of Outer Space Activities”;

(e) Non-paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities entitled “Terms of reference, methods of work and workplan of the Working Group on the Long-Term Sustainability of Outer Space Activities of the Scientific and Technical Subcommittee as of 30 August 2021 (a.m.)”;

(f) Non-paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities entitled “Draft text to ensure continuity of work”.

64. The Committee welcomed the election, at the fifty-eighth session of the Subcommittee, of Umamaheswaran R. (India) as the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities (A/AC.105/1240, para. 195).

65. The Committee noted that the Working Group had met both formally, with the benefit of interpretation services, and informally during the present session.

66. [See A/AC.105/L.322/Add.7 for additional paragraphs.]

10. Future role and method of work of the Committee

67. The Committee took note of the discussion of the Subcommittee under the item on the future role and method of work of the Committee, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 212–233).

68. The Committee recalled its decision, made at its sixty-second session, to introduce a regular item entitled “Future role and method of work of the Committee” on the agendas of both Subcommittees to allow for discussion of cross-cutting issues (A/74/20, para. 321 (h)).

69. The Committee endorsed the decisions and recommendations of the Subcommittee on the item (A/AC.105/1240, para. 233, and annex I).

11. Use of nuclear power sources in outer space

70. 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.105/1240, paras. 234–246).

71. The Committee endorsed the report 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), including the Working Group’s extended multi-year workplan (A/AC.105/1240, para. 246, and annex II).

72. The Committee acknowledged that some States and an international intergovernmental organization were developing, or considering developing, legal and regulatory instruments on the safety of the use of nuclear power sources in outer space, taking into account the contents and requirements of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space and of the Safety Framework for Nuclear Power Source Applications in Outer Space.

73. The Committee stressed the value and importance of implementing the voluntary Safety Framework for Nuclear Power Source Applications in Outer Space, which had been developed by the Subcommittee together with the International Atomic Energy Agency.

74. The view was expressed that, given the renewed interest in the use of nuclear power sources in outer space, there should be an ongoing mechanism for a structured exchange on the topic at the multilateral level, and that the Working Group on the Use of Nuclear Power Sources in Outer Space should be maintained, as it served as an important forum for information and international exchange on the use of such technology.

75. The view was expressed that the use of nuclear energy sources in Earth orbit was inadmissible in the light of the reported failures and possible collisions that pose a threat to humanity and the Earth’s environment; and that the Safety Framework was not sufficient for clearly establishing responsibilities and for addressing any critical situation arising from irresponsible practices.

76. The Committee noted that an informal meeting of the Working Group had been held under the chairmanship of Mr. Harbison on 1 September 2021, on the margins of the sixty-fourth session of the Committee, to advance the work of the Working Group under the extended multi-year workplan.

12. Space and global health

77. The Committee took note of the discussion of the Subcommittee under the item on space and global health, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 247–256).

78. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee and its Working Group on Space and Global Health, convened under the chairmanship of Antoine Geissbühler (Switzerland), including the recommendations regarding policies, experiences and practices in the use of space science and technology for global health (A/AC.105/1240, para. 256, and annex III).

79. The Committee noted the broad array of activities relevant to space and global health and acknowledged the contribution of space science, space technology and

space applications to the prevention and control of diseases, the promotion of human health and welfare, the addressing of global health issues, the advancement of medical research, the advancement of health practices and the provision of health-care services to individuals and communities, including in rural areas with limited access to health care.

80. The Committee noted the vital role of space science, space technology and space applications in addressing the COVID-19 pandemic, and their critical role in support of contact tracing, the identification of affected areas, modelling the spread of the disease and monitoring its transmission, connectivity for remote working, tele-health and communication, as well as methods of coping with social isolation.

13. 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

81. 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 ITU, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 257–269).

82. Some delegations expressed the view that the geostationary orbit was a limited natural resource that was at risk of becoming saturated, thereby threatening the sustainability of space activities in that environment, that its use should be rationalized, and that it should be made available to all States, under equitable conditions, irrespective of their current technical capabilities, taking into particular account the needs of developing countries and the geographical position of certain countries.

14. Draft provisional agenda for the fifty-ninth session of the Scientific and Technical Subcommittee

83. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for its fifty-ninth session, as reflected in the report of the Subcommittee (A/AC.105/1240, paras. 270–274).

84. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee (A/AC.105/1240, paras. 273–274).

85. On the basis of the deliberations of the Subcommittee at its fifty-eighth session, the Committee agreed that the following items should be considered by the Subcommittee at its fifty-ninth session:

1. Adoption of the agenda.
2. Election of the Chair.
3. Statement by the Chair.
4. General exchange of views and introduction of reports submitted on national activities.
5. United Nations Programme on Space Applications.
6. Space technology for sustainable socioeconomic development.
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. Space weather.
12. Near-Earth objects.
13. Long-term sustainability of outer space activities.
14. Future role and method of work of the Committee.
15. Use of nuclear power sources in outer space.

(Work for 2022 as reflected in the extended multi-year workplan of the Working Group on the Use of Nuclear Power Sources in Outer Space ([A/AC.105/1240](#), para. 246, and annex II, para. 5))

16. Space and global health.

(Work for 2022 as reflected in the multi-year workplan of the Working Group on Space and Global Health ([A/AC.105/1202](#), annex III, para. 5, and appendix I))

17. 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.

(Single issue/item for discussion)

18. Draft provisional agenda for the sixtieth session of the Scientific and Technical Subcommittee.
19. Report to the Committee on the Peaceful Uses of Outer Space.

86. The Committee agreed that, in accordance with the agreement reached at the forty-fourth session of the Scientific and Technical Subcommittee, held in 2007 ([A/AC.105/890](#), annex I, para. 24), the industry symposium to be organized by the Office for Outer Space Affairs at the fifty-ninth session of the Subcommittee should be on the topic of dark and quiet skies.
