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Committee on the Peaceful

Uses of Outer Space

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Draft report

Addendum

Chapter I

I. Introduction

E. General statements

1. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Australia, Austria, Azerbaijan, Belarus, Belgium, Brazil, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Dominican Republic, Egypt, Finland, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Israel, Italy, Japan, Kenya, Luxembourg, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Paraguay, Peru, Philippines, Poland, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Singapore, Slovakia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Thailand, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States and Venezuela (Bolivarian Republic of). The representative of Costa Rica made a statement on behalf of the Group of 77 and China. The representative of the European Union, in its capacity as observer, made a statement on behalf of the European Union and its member States. Further statements were made by the observers for APSCO, EUTELSAT-IGO, For All Moonkind, the International Astronautical Federation, ISNET, ISU, the Moon Village Association, the National Space Society, SGAC, SWF and UNISEC-Global.

2. At the 770th meeting, on 25 August, the Chair delivered a statement in which he stressed the importance of the promotion and further enhancement of the role of the Committee as a forum for fostering dialogue and cooperation. He emphasized that the COVID-19 pandemic had influenced all major human activities and affected space-related local and global matters, and that, despite the extraordinary situation, the development of space activities had continued and space had offered effective tools for relief and management. In that regard, the Committee and its Subcommittees had managed to make progress in their collective work.

3. The Chair warmly welcomed the Dominican Republic, Rwanda and Singapore as the newest members of the Committee, which brought the membership of the Committee to 95 member States. The Chair also welcomed the Moon Village



Association as the newest international non-governmental organization with observer status with the Committee.

4. At the same meeting, the Director of the Office for Outer Space Affairs made a statement in which she reviewed the work carried out by the Office. She stressed that the situation regarding the COVID-19 pandemic in 2020 and 2021 had led the Office to maximize its capacity in using virtual platforms and alternative outreach mechanisms. The demand for services that the Office provided to Member States continued to expand, from legal advisory services to guidance on space object registration and hands-on capacity-building, through several cross-cutting programmatic activities carried out in close partnership with Member States and other actors. She underlined current and upcoming activities of the Office in partnership with a variety of stakeholders, in particular for the benefit of developing countries.

5. The Committee recalled that 12 April 2021 had marked the sixtieth anniversary of the first-ever human space flight, by the Soviet cosmonaut Yuri Gagarin, which had opened the way for space exploration for the benefit of all humanity. In that connection, the Committee also recalled that the General Assembly, in its resolution [65/271](#), had declared 12 April as the International Day of Human Space Flight to celebrate the beginning of the space era for humankind, thereby reaffirming the important contribution of space science and technology to achieving sustainable development goals and increasing the well-being of States and peoples, as well as ensuring the realization of their aspiration to maintain outer space for peaceful purposes.

6. The Committee noted with regret the passing of Raimundo González Aninat of Chile, who had served as Chair of the Committee, First Vice-Chair of the Committee, Second Vice-Chair/Rapporteur of the Committee and Chair of the Legal Subcommittee and had for many years been an active contributor to the work of the Committee as a whole.

7. The Committee heard the following presentations:

(a) “‘Sky pollution’: how artificial light and satellite networks are impacting our night skies and research”, by the representative of Austria;

(b) “The Chilean space programme, opportunities for cooperation and development”, by the representative of Chile;

(c) “Interference in global navigation satellite systems and joint solutions”, by the representative of China;

(d) “Progress and international cooperation: China manned space programme”, by the representative of China;

(e) “IADC activities overview and latest updates of IADC documents”, by the representative of Germany;

(f) “Recent Indian space missions”, by the representative of India;

(g) “UNISEC-Global initiative on government policies in support of space education”, by the observer for UNISEC-Global;

(h) “Artemis Programme, heliophysics science and instruments on Gateway”, by the representative of the United States and the observer for the European Space Agency;

(i) “Perspectives from the United States on coexistence (and sustainability) of large satellite constellations and (terrestrial) astronomy”, by the representatives of the United States.

8. The Committee agreed that, together with its subcommittees and with the support of the Office for Outer Space Affairs, it remained the unique international forum tasked with promoting international cooperation in the exploration and peaceful use of outer space, and that it offered an appropriate environment to discuss

matters that had a great impact on the development of States for the betterment of humankind.

9. The Committee noted that space activities had intensified significantly in recent years, with more and more actors entering the space arena and more objects being placed in outer space.

10. Some delegations expressed the view that the international community should make further efforts and explore all possible ways and means of making full use of the benefits of the Committee and its subcommittees in order to achieve the common objectives of all nations on space-related issues.

11. Some delegations expressed the view that a continuous dialogue in a multilateral forum such as the Committee provided the best possibilities for fruitful and effective international cooperation, coordination and information-sharing, which were necessary for ensuring the peaceful use and exploration of outer space.

12. Some delegations expressed the view that developing countries were increasingly engaged in space activities and actively participating in the discussions of the Committee, and while some countries had reached important milestones in space activities, others were only starting to develop their own space programmes and policies. In line with the objective of enhancing international cooperation in outer space activities, it was vital to promote the broader participation of developing countries through active assistance from advanced spacefaring nations and the Office for Outer Space Affairs. Therefore, capacity-building and technical assistance were key factors for expanding the abilities of those working in the field, enabling them to gain expertise and knowledge from more advanced spacefaring nations.

13. Some delegations expressed the view that international cooperation in the peaceful use and exploration of outer space continued to be in the interest of all countries, irrespective of their degree of development, without discrimination of any kind and with due regard for the principle of equality.

14. Some delegations expressed the view that ongoing international collaboration and coordination to develop common practices and standards would be particularly essential and would also contribute to transparency and the building of trust between the various actors in space, thereby reducing the risk of accidents and potential conflicts.

15. The Committee welcomed the publication by the Office for Outer Space Affairs of its *Annual Report 2020*, which contained a comprehensive account of the Office's activities, cooperation and partnership programmes, achievements in 2020 and plans for the future.

16. The Committee noted with appreciation the two exhibitions, held in the Rotunda of the Vienna International Centre in conjunction with its sixty-fourth session, organized by the Russian Federation to mark the sixtieth anniversary of Yuri Gagarin's space flight, and by the United States on the Artemis Accords.

17. The Committee expressed its appreciation for the organization of the following events during the session:

(a) "Thematic discussion of astronauts and cosmonauts on the historical aspects and prospects for the development of manned programmes organized by the State Space Corporation 'Roscosmos'", organized by the Russian Federation;

(b) "The Global Expert Group on Sustainable Lunar Activities (GEGSLA): status/perspectives", organized by the Moon Village Association;

(c) "Promoting space sustainability: awareness-raising and capacity-building related to the implementation of the Guidelines for the Long-Term Sustainability of Outer Space Activities", co-organized by the United Kingdom and the Office for Outer Space Affairs;

- (d) “Announcement of opportunity for the second round of the fellowship programme on the Large Diameter Centrifuge Hypergravity Experiment Series (HyperGES)”, co-organized by the European Space Agency and the Office for Outer Space Affairs;
- (e) “Space4Climate Action”, organized by Austria;
- (f) “Space sustainability: stakeholder engagement study”, co-organized by the United Arab Emirates and the Office for Outer Space Affairs;
- (g) “Space ecosystem building in emerging space countries”, organized by Slovakia.

Chapter II

Recommendations and decisions

D. Space and sustainable development

18. The Committee considered the agenda item entitled “Space and sustainable development”, in accordance with General Assembly resolution [75/92](#).
19. The representatives of China, Egypt, France, Germany, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Kenya, Mexico, the Russian Federation, South Africa, Sri Lanka, the United Arab Emirates, the United Kingdom and the United States made statements under the item. The observers for ESCAP and CANEUS International also made statements. During the general exchange of views, representatives of other member States also made statements relating to the item.
20. The Committee had before it the following:
 - (a) Report on the United Nations/Austria World Space Forum: “Access to Space4All”, held in Vienna from 18 to 22 November 2019 ([A/AC.105/1219](#));
 - (b) Report on the United Nations/United Arab Emirates World Space Forum: “Space for our future”, held online on 9 and 10 December 2020 ([A/AC.105/1235](#)).
21. The Committee heard the following presentations under the item:
 - (a) “SAOCOM Mission and international cooperation”, by the representative of Argentina;
 - (b) “Space-based information for emergency management in China”, by the representative of China;
 - (c) “Egyptian Space Agency: sustainable development perspective”, by the representative of Egypt;
 - (d) “Copernicus in support of conflict prevention in the Sahel: environment-related transhumance patterns and the risk for farmer-herder conflicts”, by the representatives of Germany;
 - (e) “Update on India’s Earth observation systems”, by the representative of India;
 - (f) “The European Union Space Programme: overview”, by the observer for the European Union;
 - (g) “A global initiative to integrate indigenous knowledge with frontier and space technology-based solutions for building a diverse and resilient food system”, by the observer for CANEUS International;
 - (h) “It is time for commercial/civil space solar power”, by the observer for the National Space Society;

(i) “Challenge accepted: unlocking the power of virtual events and digital tools for capacity-building amongst the global space generation”, by the observer for SGAC.

22. The Committee reiterated its acknowledgement of the significant role of space science and technology and their applications in the implementation of the 2030 Agenda for Sustainable Development, in particular for the Sustainable Development Goals, in the realization of the Sendai Framework for Disaster Risk Reduction 2015–2030 and in the fulfilment by States parties of their commitments to the Paris Agreement on climate change.

23. The Committee noted the value of space technology and applications, as well as of space-derived data and information, to sustainable development, including by helping in improving the formulation and implementation of policies and programmes of action relating to environmental protection, land and water management, urban and rural development, marine and coastal ecosystems, health care, climate change, disaster risk reduction and emergency response, energy, infrastructure, navigation, seismic monitoring, natural resources management, snow and glaciers, biodiversity, agriculture and food security.

24. The Committee noted with satisfaction the holding of the series of World Space Forums, organized by the Office for Outer Space Affairs in cooperation with the Governments of Austria and the United Arab Emirates.

25. The Committee took note of the information provided by States on their efforts to integrate cross-sectoral activities at the national, regional and international levels and to incorporate space-derived geospatial data and information into all sustainable development processes and mechanisms.

26. The Committee took note of the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.

27. The Committee noted the continued role played by the International Space Station in scientific research for sustainable development.

28. The Committee noted with satisfaction the large number of outreach activities carried out by States at the regional level to build capacity through education and training in using space science and technology applications for sustainable development.

29. The Committee noted with appreciation the role played in space-related education by the regional centres for space science and technology education affiliated to the United Nations.

30. Some delegations expressed the view that the issue of space and sustainable development was multifaceted and included such aspects as the long-term sustainability of outer space activities and sustainability in space programs and economy.

31. Some delegations expressed the view that it was necessary to improve access to high-resolution Earth observation satellite data and facilitate capacity-building and institutional strengthening in all countries for the increased use of such data for sustainable development.

32. The view was expressed that the Office for Outer Space Affairs should consider hosting more international symposiums, workshops and networking events in developing countries in order to foment more discussion on the potential of space technologies in creating solutions contributing to the growth of the economy and to addressing socioeconomic challenges.

33. The Committee noted the interest expressed by the Government of Kenya to host the World Space Forums to be held from 2022 to 2024.

H. Use of space technology in the United Nations system

34. The Committee considered the agenda item entitled “Use of space technology in the United Nations system”, in accordance with General Assembly resolution [75/92](#).

35. The representatives of Austria, Germany, India, Indonesia, Mexico and the Russian Federation made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

36. The Committee had before it the following:

(a) Report of the Secretary-General on coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2020–2021 – megatrends and realization of the Sustainable Development Goals ([A/AC.105/1230](#));

(b) Conference room paper containing the report on the evaluation mission to Roscosmos Corporate Academy ([A/AC.105/2021/CRP.16](#)).

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

(a) “ITU WRC-23: protection of radar frequencies”, by the representative of Germany;

(b) “Regional Eurasian space educational centre, affiliated to the United Nations”, by the representatives of the Russian Federation.

38. The Committee noted that the thirty-ninth session of Inter-Agency Meeting on Outer Space Activities (UN-Space) had been held on 28 October 2019 at United Nations Headquarters in New York. The Committee also noted that the fifteenth open session of UN-Space had been held on 20 November 2019 as an integral part of the United Nations/Austria World Space Forum: “Access to Space4All”.

39. The Committee noted that the next report on the coordination of space-related activities within the United Nations system could focus on the use of space technologies to support climate action, mapping existing activities in the United Nations system and identifying possible future synergies, and that the Office for Outer Space Affairs would bring this to the attention of UN-Space for the development of such a report.

40. The Committee noted with satisfaction that an evaluation mission facilitated by the Office for Outer Space Affairs to the Roscosmos Corporate Academy in Moscow took place from 10 to 13 August 2021, in accordance with the proposal by the Government of the Russian Federation to establish a regional centre for space science and technology education ([A/AC.105/1240](#), para. 61). The Committee also noted that the evaluation mission had resulted in the recommendation to accept the offer of the Government of the Russian Federation to establish a regional centre hosted at the Roscosmos Corporate Academy. The Committee welcomed the progress on the establishment of the regional centre.

41. The view was expressed that it was important to ensure that no harmful interference would be caused by sharing with international mobile telecommunication systems X-band frequencies that were allocated to Earth observation satellites using radar sensing/monitoring. The delegation expressing that view encouraged States members of the Committee to conduct their own sharing and compatibility studies with a view to providing a basis for making informed decision at the next World Radiocommunication Conference.

42. The Committee noted that the fourth Ministerial Conference on Space Applications for Sustainable Development in Asia and the Pacific was scheduled to be held in October 2022, in Bali, Indonesia.

J. Space exploration and innovation

43. The Committee considered the agenda item entitled “Space exploration and innovation”, in accordance with General Assembly resolution [75/92](#).

44. The representatives of Argentina, Canada, China, India, Indonesia, Israel, Italy, Japan, Luxembourg, Mexico, the Russian Federation and the United States made statements under the item. During the general exchange of views, other statements relating to the agenda item were also made by other member States.

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

(a) “International lunar research station guide for partnership”, by the representative of China;

(b) “Progress and future of China’s space science missions”, by the representative of China;

(c) “Kibo-ABC activities on the International Space Station ‘Kibo’ for STEM education and contribution to the Sustainable Development Goals in the Asia-Pacific region”, by the representative of Japan;

(d) “Highlights of the Indian space science exploration programme”, by the representative of India;

(e) “United Arab Emirates space exploration efforts”, by the representative of the United Arab Emirates;

(f) “Moon Village Association’s contribution to peaceful and sustainable lunar activities”, by the observer for Moon Village Association;

(g) “History ignites exploration and innovation”, by the observer for All Moonkind;

(h) “The Scientific Committee on Solar-Terrestrial Physics (SCOSTEP) and its Predictability of the Solar-Terrestrial Coupling (PRESTO) programme”, by the observer for the Scientific Committee on Solar-Terrestrial Physics.

46. The Committee recalled the origin of this agenda item and the work of the Action Team on Exploration and Innovation, which had produced the first-ever United Nations report emphasizing the importance of human space exploration beyond low Earth orbit (see [A/AC.105/1168](#)).

47. The Committee welcomed the surge in space exploration and innovation developments and successes that had taken place since its sixty-second session in 2019 and which had furthered space exploration and innovation objectives.

48. The Committee noted that delegations had, at the present session, shared updates on space exploration and innovation, including details on national activities and programmes, as well as examples of bilateral and international cooperation.

49. The Committee noted that, in the course of the discussions, information had been provided on, inter alia, research and development; human space flight programmes; activities and cooperation opportunities related to the International Space Station and the China space station; various missions to the Moon, Mars, Venus and asteroids; satellite-, lander-, rover- and helicopter-based experiments to explore the solar system; samples returned to the Earth; the planned international lunar research station; the planned Lunar Orbital Platform-Gateway; the forthcoming launch of a telescope that will detect the light from the first galaxies that formed in the early universe after the Big Bang; a mission to characterize the atmosphere of selected known exoplanets; a mission to study solar activities and their effects on space weather; the use of a satellite as a multi-wavelength observatory; a deep-space antenna which provides communication and navigation services for interplanetary probes; a pressurized crewed rover to be used as a means of transportation; a highly autonomous robotic system that will use cutting-edge software to perform tasks without human intervention; multipurpose medical and research platforms to address

risks associated with human space flight; a space exploration innovation hub; an integrated Mars analogue field mission in the Negev desert; a rover operations control centre and its Mars terrain simulator; CubeSats that demonstrate small spacecraft technology; developments in global navigation satellite systems; achievements of observatories on Earth, including the first image of a supermassive black hole; the development of national space strategies, plans and commissions; commitments made between Governments on a common framework to guide space exploration cooperation; public consultations on a framework for space exploration activities; the open sharing of satellite imagery and data; efforts to build synergies between space agencies and the broader scientific community, including through sharing facilities and laboratories; activities to disseminate information on space exploration and innovation via multimedia communications and education at the primary, secondary and scientific academy levels, as well as to the general public; and increasing resources being committed to space exploration.

50. The Committee noted that space exploration endeavours provided opportunities to benefit humanity by contributing to the development of science and technology and advancing sustainable socioeconomic development on Earth.

51. The Committee also noted that space exploration activities frequently resulted in life-changing innovations and spin-off benefits.

52. The Committee further noted that, since it had held its last session, in 2019, space innovations had contributed to fighting the global COVID-19 pandemic, including by using communications services to provide telemedicine to patients in remote areas.

53. The Committee noted the increasing role and value of industry and the private sector in space exploration and innovation activities.

54. The Committee also noted that space exploration and innovation often inspired and encouraged young people to pursue studies and careers in science, technology, engineering and mathematics (“STEM subjects”), as well as in legal, policy and communications fields.

55. The Committee further noted the increasing awareness of the important role of women in space exploration and innovation activities.

56. The Committee noted the desirability of integrating developing countries into space exploration efforts to ensure that space exploration activities became open and inclusive on a global scale.
