



General Assembly

Distr.: Limited
10 February 2025

Original: English

**Committee on the Peaceful
Uses of Outer Space
Scientific and Technical Subcommittee
Sixty-second session
Vienna, 3–14 February 2025**

Draft report

Addendum

VIII. Long-term sustainability of outer space activities

1. In accordance with General Assembly resolution [79/87](#), the Subcommittee considered agenda item 10, entitled “Long-term sustainability of outer space activities”.
2. The representatives of Australia, Austria, Brazil, Canada, China, Egypt, France, Germany, India, Indonesia, Iran (Islamic Republic of), Italy, Japan, Malaysia, Mexico, Morocco, New Zealand, Nigeria, Norway, Pakistan, the Philippines, Portugal, the Republic of Korea, Romania, the Russian Federation, Saudi Arabia, Singapore, South Africa, Spain, Switzerland, the United Arab Emirates, the United Kingdom and the United States made statements under agenda item 10. Statements were also made by the observers for ITU, OSI, SGAC and SWF. During the general exchange of views, statements relating to the item were also made by representatives of other member States.
3. The Subcommittee had before it the following:
 - (a) Working paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities containing a draft report of the Working Group ([A/AC.105/C.1/L.419](#));
 - (b) Conference room paper submitted by the Russian Federation containing information on the long-term sustainability of outer space activities ([A/AC.105/C.1/2025/CRP.7](#));
 - (c) Conference room paper submitted by Canada, Chile, France, Spain and the United Kingdom on the need for a substantive conclusion to the Working Group on the Long-term Sustainability of Outer Space Activities and next steps ([A/AC.105/C.1/2025/CRP.14](#));
 - (d) Conference room paper submitted by SGAC on the responsible use of outer space ([A/AC.105/C.1/2025/CRP.15](#));
 - (e) Conference room paper submitted by the United Arab Emirates containing a proposal for the establishment of an expert group on space situational awareness ([A/AC.105/C.1/2025/CRP.20](#));



(f) Conference room paper submitted by the United Kingdom containing an update on the country's reporting approach for the voluntary implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities (A/AC.105/C.1/2025/CRP.21);

(g) Conference room paper submitted by the Office for Outer Space Affairs on the United Nations Space Bridge dialogue on global space traffic coordination (A/AC.105/C.1/2025/CRP.24);

(h) Non-paper by the Chair of the Working Group on the Long-term Sustainability of Outer Space Activities dated 6 February 2025 containing a revised draft outline for a final report of the Working Group.

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

(a) "The importance of space sustainability for the continuity of scientific services", by the representative of Brazil;

(b) "Progress and prospects in extraterrestrial resource utilization", by the representative of China;

(c) "Green in-space manufacturing", by the representative of China;

(d) "Findings from the United Kingdom Space Agency and Office for Outer Space Affairs space environment sustainability assessment", by the representative of the United Kingdom;

(e) "Recognizing cultural heritage as part of new guidelines for the long-term sustainability of outer space activities", by the observer for For All Moonkind;

(f) "Integrating culture, commerce and collaboration for sustainable space exploration", by the observer for NSS;

(g) "Space elevators for long-term sustainability", by the observer for NSS;

(h) "3xE: energy, economy, environment – the case for big data farms' relocation in outer space", by the observer for SRI;

(i) "Building a space factory in the L5 Lagrange point of the Earth-Moon system", by the observer for SRI.

5. The Subcommittee reaffirmed the interconnection between the growing number of objects being launched into outer space, the increasing complexity of space operations and the continuing importance of its work addressing the long-term sustainability of outer space activities.

6. In accordance with General Assembly resolution [79/87](#), the Working Group on the Long-term Sustainability of Outer Space Activities was reconvened at the present session, with Umamaheswaran R. (India) as Chair.

7. The Subcommittee was informed of a number of measures that had been or were being undertaken to implement the Guidelines for the Long-term Sustainability of Outer Space Activities of the Committee ([A/74/20](#), annex II). Those measures included the development of national operating procedures, space strategies and policies; the creation, review and updating of relevant domestic legislation and regulation; the ratification of relevant international treaties; the enhanced registration of space objects; developments in licensing processes; the establishment of national on-orbit servicing guidelines; a joint declaration to create safe and sustainable space infrastructure through in-orbit service systems; a space policy directive; the incorporation of space-related objectives into a national recovery and resilience plan; a public consultation process to inform regulatory revisions; a parliamentary report on the environmental impact of space activities; national and regional space surveillance and tracking systems; a publicly available collision risk analysis service open to operators around the world; a national research and development investment programme for space surveillance; the activities of an observatory to observe and characterize space debris; efforts to minimize the post-mission orbital life of space

objects; efforts to define a maximum period after which satellites should be deorbited, proportional to the lifetime of the satellite; preparations for debris removal missions; a mission that would monitor the disintegration of a satellite upon re-entry into the atmosphere to advance the design of future satellites that would completely disintegrate during re-entry; a dedicated space economy fund designed to foster market innovation through both public and private investments; and wider investment in space sustainability research and technology development, including atmospheric ablation.

8. The Subcommittee was also informed of various initiatives linked to the Guidelines for the Long-term Sustainability of Outer Space Activities, including their implementation. Those initiatives included international cooperation opportunities related to the International Space Station, the China Space Station and the International Lunar Research Station project; capacity-building undertaken through collaboration with APSCO; the capacity-building work of the Asia-Pacific Regional Space Agency Forum; the work of the Subcommittee on Space Technology and Applications of the Association of Southeast Asian Nations; training and capacity-building opportunities offered through the regional centres for space science and technology education, affiliated to the United Nations; efforts by the Inter-Agency Space Debris Coordination Committee; work by the Space Safety Centre at the European Space Operations Centre; the Zero Debris Charter; a statement for a responsible space sector; the second edition of the Abu Dhabi Space Debate, entitled “From Earth to orbit: a space for action and accountability”, with a key theme of space sustainability; the upcoming eighteenth International Conference on Space Operations, on the theme “Towards space sustainability”; training modules of the Swiss Federal Institute of Technology in Lausanne and the Swiss Federal Institute of Technology in Zurich dedicated to the sustainability of space activities; the centre of excellence for space and sustainability to be established at ESPI; the United Nations Space Bridge dialogue on global space traffic coordination; the United Nations Space Sustainability Days; space situational awareness training events; the Long-term Sustainability of Outer Space Activities Information Repository; and other relevant capacity-building projects and activities of the Office for Outer Space Affairs.

9. Some delegations expressed the view that the Guidelines for the Long-term Sustainability of Outer Space Activities demonstrated that the Committee could produce substantive, technically rigorous and meaningful consensus-based outcomes that had a lasting effect.

10. Some delegations expressed the view that ongoing reporting on the implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities was vital for sharing practices and uncovering common challenges, which could guide future work of the Committee.

11. Some delegations expressed the view that the adoption of the voluntary Guidelines for the Long-term Sustainability of Outer Space Activities had been the outcome of a multidimensional compromise and a delicate balance, and that the delicate balance should be preserved in the implementation of the workplan of the Working Group, taking into consideration the priorities and concerns of all member States, in particular those of developing countries.

12. The view was expressed that countries should be allowed to take steps to implement the voluntary Guidelines for the Long-term Sustainability of Outer Space Activities in a phased and step-by-step manner within the framework of their domestic laws and in accordance with their national contexts.

13. The view was expressed that the most urgent and universal challenges to the long-term sustainability of outer space activities should be selected for the development of new guidelines in response to current situations, providing practical measures for the benefit of all countries.

14. The view was expressed that it was of utmost importance to develop internationally binding legal norms to protect the space environment.

15. The Subcommittee agreed on the importance of focused and dedicated work on the timely topics of space situational awareness and space traffic coordination.
16. The view was expressed that, from a technical perspective, developing the necessary capabilities for space sustainability – including space object monitoring, collision avoidance, post-mission disposal and satellite shielding – remained costly and challenging for emerging spacefaring nations and that technical assistance and capacity-building from advanced spacefaring nations was essential.
17. The view was expressed that a concrete, pragmatic and gradual approach should be taken to avoiding any catastrophic collisions in the orbital environment. The delegation expressing that view was also of the view that coordination between space surveillance and tracking systems was a concrete first step, and that further future action could involve a move towards a mechanism for the global coordination of space traffic, under the aegis of the United Nations, that facilitated the exchange of information and interoperability.
18. The view was expressed that the establishment of a United Nations platform on space objects and events should continue to be considered.
19. The view was expressed that the 21 Guidelines for the Long-term Sustainability of Outer Space Activities represented important building blocks in an international approach to space traffic, and that the Scientific and Technical Subcommittee should play a role in defining how the international community addressed space traffic at the global level.
20. The Subcommittee took note of the proposal on space situational awareness contained in conference room paper A/AC.105/C.1/2025/CRP.20 and was informed that the United Arab Emirates would conduct intersessional exchanges on the proposal.
21. Some delegations expressed the view that it was important to find an appropriate way forward to address space traffic and that further discussions on the form, structure, scope and procedures of such a mechanism could benefit from consideration by the Committee at its sixty-eighth session.
22. Some delegations expressed the view that there were open questions regarding how best to move ahead with substantive and professional discussions on topics related to space situational awareness and space traffic coordination with a view to avoiding duplication of efforts.
23. Some delegations expressed the view that the global community should adopt measures to safeguard the space environment, including innovative financial compensation frameworks for damages incurred to the space objects of developing nations and that one such potential mechanism to explore was a levy or insurance system that supported affected States.
24. The view was expressed that there should be support for the competitiveness and innovation capacities of companies that provided solutions to challenges to the long-term sustainability of space activities.
25. The view was expressed that the concept of the long-term sustainability of outer space activities should encompass endeavours linked to other celestial bodies, in particular the Moon.
26. At its [...] meeting, on [...] February, the Subcommittee endorsed the report of the Working Group on the Long-term Sustainability of Outer Space Activities, which is contained in annex II to the present report.