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English only

**Committee on the Peaceful
Uses of Outer Space
Scientific and Technical Subcommittee
Sixtieth session**

Vienna, 6–17 February 2023

Item 12 of the provisional agenda*

Long-term sustainability of outer space activities

**Consideration of areas for possible new guidelines
concerning the long-term sustainability of outer space
activities**

Conference room paper by Canada

1. The Committee on the Peaceful Uses of Outer Space adopted the preamble and 21 Guidelines for the Long-term Sustainability of Outer Space Activities at its sixty-second session in June 2019 ([A/74/20](#), para. 163 and annex II). Canada is a strong supporter of these Guidelines and encourages all parties to take measures towards implementation. Canada is pleased that during the fifty-ninth session of the Scientific and Technical Subcommittee the working group agreed on and adopted a terms of reference, methods of work and workplan for the next iteration of this important work.

2. Pursuant to the invitation from the Secretariat following the fifty-ninth session of the Subcommittee, which invited States members of the Committee to provide views on the topics in paragraphs 4 and 6 of the Working Group's terms of reference, methods of work and workplan ([A/AC.105/1258](#), annex II, appendix) Canada wishes to share a proposal for potential areas for new guidelines based upon initial experiences with implementation of the existing guidelines. Canada wishes to stress that equal weight should be placed on all three elements of the working group's workplan. Canada believes that it is through the sharing of implementation successes and challenges that the international community will make the greatest progress on the long-term sustainability of outer space activities and towards capacity-building.

3. As such, Canada wishes to submit the following potential new areas for consideration:

(a) Post-mission and end of life disposal is contemplated in the current Guideline D.2 "investigate and consider new measures to manage the space debris population in the long term". In addition, the international community benefits from the complimentary Inter-Agency Space Debris Coordination Committee (IADC) and the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space. However, given that addressing space debris is crucial to the long-term

* [A/AC.105/C.1/L405](#).



sustainability of space operations, including deep-space exploration, Canada considers that further discussion to enhance practical implementation of post-mission disposal under the current Guideline D.2 is warranted. In particular, for non-maneuvrable space objects that could pose a risk to human life, i.e. those that are within the vicinity of the International Space Station (ISS) and future commercial platforms in low-Earth orbit (LEO);

(b) The increasing volume of objects in space – and debris – places additional pressure on Space Situational Awareness (SSA) capabilities. Space Situational Awareness capabilities provide the backbone of space safety and sustainability by enabling operators to reduce the potential risk of collision between objects. In addition, Space Situational Awareness capabilities play an important role in promoting transparency, trust and confidence-building. As the congestion and risk to spacecraft increases due to uncontrolled objects and the rapidly evolving operating model in outer space, this working group could consider a guideline to minimize the proliferation of very small space objects that are difficult to track;

(c) On-orbit congestion from the continued increase in activity in outer space increases the risk of debris-generating collisions. As such, one area that this working group could consider for a new guideline is active debris removal. This could include the development of recommended procedures for effective communication and notification of active debris removal activities; means to conduct these activities in a transparent manner, and techniques for these operations that promote spaceflight safety. In this regard, Canada believes that the techniques developed by the Consortium for Execution of Rendezvous and Servicing Operations (CONFERS) and included by the International Standards Organization (ISO) in ISO 24330, Space systems — Rendezvous and Proximity Operations (RPO) and On Orbit Servicing (OOS) would provide a starting point for discussion. This would contribute to ensuring that the active removal of space objects is conducted in a manner that contributes to the long-term sustainability of outer space activities;

(d) Finally, deep space exploration activities and particularly the need to consider the safety and sustainability of exploration activities related to the Moon, Mars, and other celestial bodies for peaceful purposes are one area that is not clarified in the current guidelines. In this regard, the Committee on the Peaceful Uses of Outer Space could consider a statement that the Guidelines for the Long-term Sustainability of Outer Space Activities extend to activities in deep space. To build on this, this working group could take under consideration areas relevant to deep space exploration, such as the de-confliction of exploration activities, including the definition of safety zones and measures to avoid harmful interference. This could include, inter alia, discussion on the procedures for notification and coordination to avoid harmful interference, or preserving outer space heritage (i.e., historically significant landing sites, artefacts, and spacecraft).

4. Canada wishes to encourage all interested parties to join in constructive dialogue on this important element of the working group's ongoing discussion. These issues cannot be addressed in isolation. The challenges we face regarding space safety and sustainability, particularly as the international community considers emerging operational models, expanding presence of non-State actors, and the benefit of peaceful deep space exploration for all humankind, must be addressed holistically.