29 January 2024

English only

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
Sixty-first session
Vienna, 29 January–9 February 2024
Item 11 of the provisional agenda*
Long-term sustainability of outer space activities

Update on implementation of the Guidelines for the Long-term Sustainability of Outer Space Activities

Conference room paper by Canada

The present conference room paper was prepared by the Secretariat on the basis of information received from Canada. The information was reproduced in the form it was received.

* A/AC.105/C.1/L.412.

Canada: Update on Implementation of the Guidelines for the Long-Term Sustainability of Outer Space Activities

Canada is pleased to present an updated submission regarding the voluntary implementation of the 21 Guidelines for the Long-Term Sustainability of Outer Space Activities pursuant to the request by the Secretariat to provide information and views on the topics in paragraphs 4 and 6 of the Working Group's terms of reference, methods of work and workplan in 2023, as in 2022 (A/AC.105/1258, annex II, appendix, para. 18).

B. Safety of space operations

Guideline Reference	B.2 Improve accuracy of orbital data on space objects and enhance the practice and utility of sharing orbital information on space objects. B.3 Promote the collection, sharing and dissemination of space debris monitoring information	Canada
1. Thoughts or approach to implementation	Canada operates two space-based space situational awareness (SSA) assets, which collect observational data that is shared with international partners. In addition, SSA experts conduct outreach with industry and academia to enable timely notifications in case of potential risks to their space operations and promote the development and use of techniques and methods to improve the accuracy of orbital data. Increased monitoring capability remains very important due to increasingly complex and congested orbital environment, in particular in LEO.	
2. Current progress and/or proposed future activities	CSA's Satellite Operations Centre has been in continuous operation since 1995 and monitors and mitigates space debris issues on a 24/7 basis. Satellite Operations Centre has been in continuous operation since 1995 and monitors and mitigates space debris issues on a 24/7 basis. Available Canadian sensors contribute to improving the accuracy of orbital data on space objects. The CSA also manages its Collision Risk Assessment and Mitigation System (CRAMS) to also evaluate the status of orbital data. This system provides value added analyses for approximately 100 satellites from the Canadian government, industry and academia as well as international partners. Nationally, as committed to in the 2019 Space Strategy, Canada is reviewing its regulatory framework for space activities to ensure that Government can provide timely responses for industry, maintain strategic oversight for national security and enable commercial growth. SSA and Space Traffic Management (STM) are being considered as one aspect of this broader review.	
3. Experiences, challenges and lessons learnt	Accurate, timely, and actionable SSA information, combined with clear, global, space traffic "rules of the road", is of growing interest and importance. International discussion on global STM continues to grow given the increased activity in space, and the increased risk of debris-generating collisions. There are two challenges that we see emerging and that would benefit from further elaboration at the multilateral level within this subcommittee: a. A growing number of data sources are available for space surveillance and tracking but inconsistency between these data sources can lead to more confusion and greater risk to space operations; and, b. Regarding STM, while the relevant legal aspects are being addressed by the Legal Subcommittee (LSC) there is no similar thematic area within the STSC to discuss the technical and scientific elements of STM, which would	

	complement their consideration at the LSC and inform deliberations at COPUOS.
4. Comments on specific needs for capacity building necessary to support implementation	As noted in "*For All Humanity – the Future of Outer Space Governance*", the United Nations Secretary General has called on member States to address STM to mitigate the risks posed by a rapidly changing space environment. Recognizing that complementary discussions are being held as part of the preparatory work for the 2024 Summit of the Future, it is clear that having a means to discuss the scientific and technical aspects of STM within COPUOS would benefit the implementation of Guidelines B.2 and B.3.