

**Canadian Statement**  
**Agenda Item 6 – Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth’s environment.**  
**Delivered by: Colleen Mapendere, Global Affairs Canada**

Committee on the Peaceful Uses of Outer Space  
Scientific and Technical Subcommittee  
Fifty-eight Session, Vienna, April 19-30, 2021

Madame Chair,

Remote sensing is an essential technology for monitoring a country of Canada’s size for climate change, environmental protection, disaster monitoring and prevention, management of natural resources, national security and many other government mandates. However, we cannot overlook the numerous socioeconomic benefits it brings to all Canadians. For this reason, earth observation has been, and continues to be, a priority for Canada, as reflected in our continued development and deployment of radar satellite programs such as RADARSAT, RADARSAT-2, and the RADARSAT Constellation Mission (RCM).

Launched in 2019, RCM represents an evolution of the RADARSAT Program and ensures C-Band SAR data continuity. Canada seeks to maximize the socio-economic benefits of space-based Earth observation data by making data available to the broadest extent possible, balanced with national regulations to ensure national security. Canada remains committed to provide free and open data access, to the extent possible, and has released a first set of RADARSAT-1 data records.

Madame Chair, distinguished delegates,

Following a thorough environmental scan and extensive consultations with stakeholders from the government, industry and academia, conducted in 2018 and 2019, the Canadian Space Agency has modernized and renewed its Earth observation applications development funding. The smartEarth initiative fosters a smart use of satellite data to develop solutions to key challenges on Earth and in our everyday lives. Since its inception in January 2020, smartEarth has invested more than \$13 Million (Canadian) to support downstream sector capabilities development and growth as well as answering national priorities.

Earth Observation activities are undergoing enormous paradigm shifts concerning broad-scale operational utilization and application. Recognizing the importance of enhancing overall understanding of the benefits of remote sensing, Canada is investing in capacity building through web-based education solutions. The Canadian SAR Mini-MOOC (Massive Open Online Course) is designed as a contribution to the EO College learning platform of education materials and online teaching modules. The cooperation with European EO College partners complements existing radar remote sensing eLearning tools and strengthens transatlantic Earth Observation education activities with a view to engaging the broader public online. The course introduces learners to

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Canadian radar remote sensing applications, ongoing research and development, and operational use by government departments and agencies. The Canadian SAR Mini-MOOC is entitled “Winter, Water, Warming”. Production is presently in the final stage, with a planned release in the Fall of this year.

Madame Chair, distinguished delegates,

As part of Canada’s commitment to combat illegal, unregulated and unreported (IUU) fishing, Canada is engaged on two initiatives collaborating with NGOs, private industry and partner countries to leverage space-based data to illuminate IUU fishing and support responses to its impact. The Dark Vessel Detection project utilizes multiple sources of space-based data including Canada’s Radarsat Constellation Mission to build a real-time picture of vessel activity to support fisheries authorities. Canada has partnered with Ecuador and Pacific Island countries to deliver the web-based system, which will allow these authorities to respond to issues of concern to their waters. Secondly, Canada supports the work of Global Fishing Watch, an international NGO driving research and innovation from space-based sensor data to bring increased transparency to fishing and human activity at sea. Canada is pleased to invite you to a technical presentation, alongside Global Fishing Watch in the afternoon of April 26 to share more information with these exciting approaches to using space-based sensor data to support oceans protection.

Furthermore, a number of the world’s whale populations are in crisis and in need of better protection if they are to thrive and survive. The Government of Canada has demonstrated its commitment to the protection and recovery of right whales through several investments in recent years to help protect and recover endangered whale species in Canada. In June 2020, Canada, under the smartEarth initiative, released a Request for Proposal (RFP) to explore and develop ways in which space-based solutions can be used, in conjunction with other information sources, to contribute to the protection and environmental management of North Atlantic Right Whale in Canadian waters. This initiative will explore, over the next 3 years, how satellite data can (1) improve the accuracy of detection and monitoring of whales and (2) increase the effectiveness of prediction and modelling methods for locating and tracking the movements and activities of whales and their habitat characteristics.

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Finally, Madame Chair,

Earth Observation remains a foundational piece in Canada’s space ecosystem and its missions will continue supporting the broader work of the UN through the 2030 Agenda and its Sustainable Development Goals. Canada is proud to support this work and leverage its space assets to increase the socio-economic benefits to humankind.

Thank you for your kind attention.