Canadian Statement
Agenda Item 7 – Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
Delivered by: Laura-Alexe Marcoux, Canadian Space Agency

Committee on the Peaceful Uses of Outer Space
Scientific and Technical Subcommittee
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Chair, distinguished delegates,

With the second-largest landmass in the world, Canada relies heavily on Earth Observation as an essential source of information. Canada is fully committed and actively working to ensure that space science and technology provide fundamental benefits to all Canadians, as well as the global community. From providing weather forecasts and information about the environment, to being a resource used to build value-added products, space technologies are vital. Canada's satellite fleet is providing valuable data about our planet, on a daily basis, that is used by decision makers and researchers globally. For this reason, earth observation has been, and continues to be, a priority for Canada.

Canada's new Earth observation (EO) strategy (*Resourceful, Resilient, Ready: Canada's Strategy for Satellite Earth Observation)*, released last month, will harness the principles necessary to develop new capabilities to help in every-day decisions across government, industry and academia. By ensuring that current and future satellite EO data is free, open, and accessible we will be able to maximize science, innovation and economic development. Canada is also committing to focusing its attention on the use of satellite EO in support of solutions for climate change mitigation, adaptation, and other key issues facing Canadians and the world. Canada is also promoting satellite EO education across diverse groups as well as aiming to partner with indigenous and northern communities to develop locally driven solutions to global challenges. By inspiring and developing the next generation's skills, Canada is planning on staying ahead of technological developments. We welcome you to attend our technical presentation on "Indigenous Mapping Workshop and Satellite Earth Observation" on February 15th 2022.

Chair, distinguished delegates,

Canada recognizes the importance of Earth observation in the fight against climate change. At COP26, Canada announced its commitment to the growth of a greener economy through a $20 million investment in GHGSat, a Canadian company, to expand its fleet of high-tech satellites that track greenhouse gas emissions from the Earth's orbit. This space-based system uses

spectrometer imaging to obtain high-resolution images of methane emissions to aid in this effort. GHGSat can detect methane emissions from sources 100 times smaller than those detected by other satellites and quantify methane emissions from point sources as small as individual oil and gas wells. The data generated will be integrated with other publicly available datasets to develop new derived products that will be openly accessible to researchers and decision makers, which will support the Paris Agreement on climate change.

Chair, distinguished delegates,

Canada has also extended its support for another 3 years to Sweden's Odin satellite, that just celebrated 20 years of operations, through its Optical Spectrograph and InfraRed Image System (OSIRIS). This ozone, aerosol and nitrogen dioxide monitoring mission is helping scientists better understand the impact of human activities and natural phenomena on the environment.

Remote-sensing technologies are fundamental to better understanding our Earth and finding innovative solutions to everyday problems. To this end, as the world's whale populations is in crisis, Canada is investing in the protection of the endangered North Atlantic right whale under the smartWhales initiative. The development of new space technologies to inform our vessel traffic management measures and reduce the risk of vessel collisions with this endangered species will benefit both the North Atlantic right whale population and economic sustainability.

The Canadian Space Agency has also initiated twenty-one new Earth System satellite data analysis projects to improve our understanding of the physical and chemical processes of the Earth. With areas of research covering the atmosphere, lakes and oceans, cryosphere, biosphere, along with advancing Arctic science, Canada is using space technology to create knowledge that will help us better understand Earth's climate while having the potential to develop cost-effective solutions to address challenges.

Finally Chair,

Earth Observation remains a foundational component of Canada's space ecosystem. Canada hopes that, by the global sharing of scientific data, we will all work together to address global challenges and provide socio-economic benefits to all humankind.

Thank you for your kind attention.