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**Committee on the Peaceful
Uses of Outer Space****Information furnished in conformity with the Convention
on Registration of Objects Launched into Outer Space****Note verbale dated 1 June 2021 from the Permanent Mission
of Canada to the United Nations (Vienna) addressed to the
Secretary-General**

The Permanent Mission of Canada to the United Nations (Vienna), in accordance with article IV of the Convention on Registration of Objects Launched into Outer Space (General Assembly resolution [3235 \(XXIX\)](#), annex), has the honour to transmit the required technical information concerning Canadian space objects LEO 1, ESAIL, GHGSat-C1, DESCENT and GHGSat-C2 (see annex).¹

¹ The data on the space objects referenced in the annex were entered into the Register of Objects Launched into Outer Space on 17 June 2021.



Annex

Registration data on space objects launched by Canada*

LEO 1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2018-004C
Name of space object	LEO 1
State of registry	Canada
Other launching States	India
National designator/registration number	43113U, 18004C
Date and territory or location of launch	12 January 2018 at 0359 hours and 0 seconds UTC; Sriharikota Range (SHAR), Sriharikota, India
Basic orbital parameters	
Nodal period	105.1 minutes
Inclination	99.5 degrees
Apogee radius	1,003.8 kilometres
Perigee radius	996.4 kilometres
General function of space object	Communications

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	Telesat
Website	www.telesat.com
Launch vehicle	PSLV

ESAIL

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2020-061B
Name of space object	ESAIL (exactView-10, EV10)
State of registry	Canada
Other launching States	France European Space Agency (ESA)
Date and territory or location of launch	3 September 2020 at 0151 hours and 10 seconds UTC; Guiana Space Centre, French Guiana

* The information was submitted using the form prepared pursuant to General Assembly resolution 62/101 and has been reformatted by the Secretariat.

Basic orbital parameters	
Nodal period	94.6 minutes
Inclination	97.4659 degrees
Apogee radius	6,895.10 kilometres
Perigee radius	6,895.10 kilometres
General function of space object	Global ship traffic data collection using very high frequencies (VHF) for the automatic identification system (AIS), application specific messages (ASM), the VHF data exchange system (VDES) and autonomous maritime radio devices (AMRD)

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	exactEarth
Website	www.exactearth.com
Launch vehicle	Arianespace VEGA VV16 launch vehicle
Other information	Manufactured by LuxSpace in Luxembourg under a contract to ESA for exactEarth in Canada

GHGSat-C1

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2020-061G
Name of space object	GHGSat-C1
State of registry	Canada
Other launching States	France ESA
Date and territory or location of launch	3 September 2020 at 0151 hours and 10 seconds UTC; Guiana Space Centre, French Guiana
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.5 degrees
Apogee	523 kilometres
Perigee	504 kilometres
General function of space object	Measurement of greenhouse gas emissions at targeted sites

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	GHGSat Inc.
Website	www.ghgsat.com
Launch vehicle	Arianespace VEGA VV16 launch vehicle

DESCENT

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	1998-067RX
Name of space object	DESCENT
State of registry	Canada
Other launching States	United States of America
Date and territory or location of launch	3 October 2020 at 0116 hours and 14 seconds UTC; Mid-Atlantic Regional Spaceport Launch Pad 0, Wallops Island, Virginia, United States
Basic orbital parameters	
Nodal period	92.84 minutes
Inclination	51.64 degrees
Apogee	416 kilometres
Perigee	411 kilometres
General function of space object	The DESCENT mission will demonstrate the ability to de-orbit spacecraft using an electrodynamic tether. The mission consists of two 1U CubeSats attached with a 100 metre-long tether. Once in space, the two cubes will separate and expedite the time of de-orbit

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	George Zhu, York University, Toronto, Ontario, Canada
Launch vehicle	Cygnus 14

GHGSat-C2

Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Name of space object	GHGSat-C2
State of registry	Canada
Other launching States	United States
Date and territory or location of launch	24 January 2021 at 1500 hours and 0 seconds UTC; Space Launch Complex 40, Cape Canaveral Air Force Station, Florida, United States
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.501 degrees
Apogee	531.477 kilometres

Perigee	523.150 kilometres
General function of space object	Measurement of greenhouse gas emissions at targeted sites

Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	GHGSat Inc.
Website	www.ghgsat.com
Launch vehicle	SpaceX Falcon 9 Transporter-1
