



**Secretariat**

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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 24 January 2017 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 launch information and technical data concerning Canadian space objects (see annex).



## Annex

### Registration data on space objects launched by Canada<sup>\*</sup>

#### Dextre

Committee on Space Research international designator	International designator not assigned to this flight element
Name of space object	Dextre
State of registry	Canada
Other launching States	United States of America
Date of launch	11 March 2008
Territory or location of launch:	Kennedy Space Center, Florida, United States of America
Launch vehicle	United States Space Shuttle Endeavour, National Aeronautics and Space Administration's STS-123 mission
Basic orbital parameters	
Nodal period	92.7 minutes (same as the International Space Station (ISS))
Inclination	51.6 degrees (same as the ISS)
Apogee	417.1 kilometres (same as the ISS)
Perigee	407.1 kilometres (same as the ISS)
General function of space object	Maintenance of the International Space Station
Operating entity	Canadian Space Agency

#### NEOSSat

Committee on Space Research international designator	2013-009D
Name of space object	NEOSSat
State of registry	Canada
Other launching States	India
Date of launch:	25 February 2013
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C20
Basic orbital parameters	
Nodal period	100.3 minutes
Inclination	98.5 degrees
Apogee	786.0 kilometres
Perigee	762.5 kilometres
General function of space object	Search for hazardous Earth-crossing asteroids
Operating entity	Canadian Space Agency

<sup>\*</sup> The registration data are reproduced in the form in which they were received.

## Cassiope

Committee on Space Research international designator	2013-055A
Name of space object	Cassiope
State of registry	Canada
Other launching States	United States of America
Date of launch	29 September 2013
Territory or location of launch	Air Force Western Test Range, Vandenberg Air Force Base, California, United States of America
Launch vehicle	Falcon 9 rocket
Basic orbital parameters	
Nodal period	101.3 minutes
Inclination	81 degrees
Apogee	1,326.8 kilometres
Perigee	328.3 kilometres
General function of space object	Technology demonstration and scientific research on space weather
Operating entity	Cascade Data Services Inc. and University of Calgary

## BRITE-CA1 (Brite-Toronto)

Committee on Space Research international designator	2014-033L
Name of space object	BRITE-CA1 (Brite-Toronto)
State of registry	Canada
Other launching States	Russian Federation
Date of launch	19 June 2014
Territory or location of launch	Yasny Launch Base, Dombarovsky, Russian Federation
Launch vehicle	Dnepr launch vehicle
Basic orbital parameters	
Nodal period	98.2 minutes
Inclination	97.9 degrees
Apogee	679.9 kilometres
Perigee	679.9 kilometres
General function of space object	Astronomical observation
Operating entity	Space Flight Laboratory at the University of Toronto

**CanX-4**

Committee on Space Research international designator	2014-034C
Name of space object	CanX-4
State of registry	Canada
Other launching States	India
Date of launch	30 June 2014
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C23
Basic orbital parameters	
Nodal period	97.7 minutes
Inclination	98.2 degrees
Apogee	663.4 kilometres
Perigee	644.0 kilometres
General function of space object	Satellite formation flying demonstration, together with CanX-5
Operating entity	Space Flight Laboratory at the University of Toronto

**CanX-5**

Committee on Space Research international designator	2014-034D
Name of space object	CanX-5
State of registry	Canada
Other launching States	India
Date of launch	30 June 2014
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C23
Basic orbital parameters	
Nodal period	97.7 minutes
Inclination	98.2 degrees
Apogee	663.4 kilometres
Perigee	644.0 kilometres
General function of space object	Satellite formation flying demonstration, together with CanX-4
Operating entity	Space Flight Laboratory at the University of Toronto

**exactView-9**

Committee on Space Research international designator	2015-052G
Name of space object	exactView-9
State of registry	Canada
Other launching States	India
Date of launch	28 September 2015
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C30
Basic orbital parameters	
Nodal period	97.5 minutes
Inclination	6.0 degrees
Apogee	648.6 kilometres
Perigee	648.6 kilometres
General function of space object	Automatic Identification System detection and monitoring
Operating entity	exactEarth Ltd.

**GHGSat-D**

Committee on Space Research international designator	2016-040D
Name of space object	GHGSat-D
State of registry	Canada
Other launching States	India
Date of launch	22 June 2016
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C34
Basic orbital parameters	
Nodal period	94.7 minutes
Inclination	97.5 degrees
Apogee	516.3 kilometres
Perigee	505.3 kilometres
General function of space object	Measurement of greenhouse gas emissions at targeted sites
Operating entity	Space Flight Laboratory at the University of Toronto (owner: GHGSAT Inc.)

**M3MSat**

Committee on Space Research international designator	2016-040G
Name of space object	M3MSat
State of registry	Canada
Other launching States	India
Date of launch	22 June 2016
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C34
Basic orbital parameters	
Nodal period	94.7 minutes
Inclination	97.5 degrees
Apogee	513.4 kilometres
Perigee	493.2 kilometres
General function of space object	Automatic Identification System detection and monitoring and technology demonstration
Operating entity	Canadian Space Agency (owned by the Department of National Defence)

**CanX-7**

Committee on Space Research international designator	2016-059F
Name of space object	CanX-7
State of registry	Canada
Other launching States	India
Date of launch	26 September 2016
Territory or location of launch	Satish Dhawan Space Centre, Sriharikota, India
Launch vehicle	Polar Satellite Launch Vehicle C35
Basic orbital parameters	
Nodal period	98.4 minutes
Inclination	98.2 degrees
Apogee	708.6 kilometres
Perigee	668.4 kilometres
General function of space object	Technology demonstration
Operating entity	Space Flight Laboratory at the University of Toronto

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