United Nations ST/SG/SER.E/489

Secretariat

Distr.: General
11 October 2006

Original: English

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 16 March 2006 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) presents its compliments to the Secretary-General of the United Nations and, 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 MSAT-1, Nimiq-1, Anik F-1, Canadarm-2, MBS, Nimiq-2, MOST, CanX-1, SciSat and Anik F-2 (see annex).

V.06-57629 (E) 271006 271006

Annex

Registration data for Canadian space objects*

1. MSAT-1

Names of Launching States:	Canada France
Designator:	MSAT-1
Date and territory or location of launch:	20 April 1996 Kourou, French Guiana
Launch vehicle:	Ariane 4
Orbital parameters	
Nodal period:	Geostationary Earth orbit
Inclination:	Controlled to zero ± 0.05 degrees
Apogee:	Kept between 15 kilometres and 30 kilometres above the synchronous radius
Perigee:	Kept between 15 kilometres and 30 kilometres below the synchronous radius
Longitude:	106.5 degrees West
Frequencies and transmitter power:	
Uplink:	1631.5-1660.5 MHz
Downlink:	1530-1559 MHz
Uplink:	13.0-13.15 GHz and 13.2-13.25 GHz
Downlink:	10.75-10.95 GHz
Purpose:	Mobile communications—voice and data
Operating entity:	Mobile Satellite Ventures (Canada) Inc.

2. Nimiq-1

Names of Launching States:	Canada Kazakhstan
Designator:	Nimiq-1
Date and territory or location of launch:	20 May 1999 Baikonur, Kazakhstan
Launch vehicle:	Proton D-1-E
Orbital parameters	
Nodal period:	Geostationary Earth orbit
Inclination:	Zero ± 0.05 degrees
Apogee:	20 kilometres above synchronous radius
Perigee:	20 kilometres below synchronous radius
Longitude:	91.1 degrees West

* The registration data are reproduced in the form in which they were received.

Frequencies and transmitter power:	12.2-12.7 GHz 120 W Traveling Wave Tube Amplifiers (TWTAs)
Purpose:	Direct broadcast
Operating entity:	Telesat Canada

3. Anik F-1

Names of Launching States:	Canada France
Designator:	Anik F-1
Date and territory or location of launch:	20 November 2000 Kourou, French Guiana
Launch vehicle:	Ariane 44L
Orbital parameters	
Nodal period:	Geostationary Earth orbit
Inclination:	Zero ± 0.05 degrees
Apogee:	20 kilometres above synchronous radius
Perigee:	20 kilometres below synchronous radius
Longitude:	107.3 degrees West
Frequencies and transmitter power:	3.7-4.2 GHz 40 W Traveling Wave Tube Amplifiers (TWTAs) 11.55-12.2 GHz 115 W TWTAs
Purpose:	Telecommunications
Operating entity:	Telesat Canada

4. Canadarm-2

Names of Launching States:	Canada United States of America
Designator:	Canadarm-2
Date and territory or location of launch:	19 April 2001 Kennedy Space Center, Florida, United States
Launch vehicle:	United States Space Shuttle Endeavor, STS-100 Mission of the National Aeronautics and Space Administration
Orbital parameters	
Nodal period:	92 minutes (same as International Space Station)
Inclination:	51.60 degrees (same as International Space Station)

Apogee:	395.9 kilometres (same as International Space Station)
Perigee:	391 kilometres (same as International Space Station)
Purpose:	Assembly and maintenance of the International Space Station
Operating entity:	Canadian Space Agency

5. Mobile Remote Servicer Base System (MBS)

Names of Launching States:	Canada United States of America
Designator:	Mobile Remote Servicer Base System (MBS)
Date and territory or location of launch:	5 June 2002 Kennedy Space Center, Florida, United States
Launch vehicle:	United States Space Shuttle Endeavor, STS-111 Mission of the National Aeronautics and Space Administration
Orbital parameters	
Nodal period:	92 minutes (same as International Space Station)
Inclination:	51.60 degrees (same as International Space Station)
Apogee:	395.9 kilometres (same as International Space Station)
Perigee:	391 kilometres (same as International Space Station)
Purpose:	Support assembly and maintenance of the International Space Station
Operating entity:	Canadian Space Agency

6. Nimiq-2

Names of Launching States:	Canada Kazakhstan
Designator:	Nimiq-2
Date and territory or location of launch:	30 December 2002 Baikonur, Kazakhstan
Launch vehicle:	Proton D-1-E
Orbital parameters	
Nodal period:	Geostationary Earth orbit
Inclination:	Zero ± 0.05 degrees
Apogee:	20 kilometres above synchronous radius
Perigee:	20 kilometres below synchronous radius
Longitude:	82.0 degrees West

Frequencies and transmitter power:	12.2-12.7 GHz 120 W Traveling Wave Tube Amplifiers (TWTAs)
Purpose:	Direct broadcast
Operating entity:	Telesat Canada

7. Microvariability and Oscillations of Stars (MOST)

Names of Launching States:	Canada Russian Federation
Designator:	Microvariability and Oscillations of Stars (MOST)
Date and territory or location of launch:	30 June 2003 Plesetsk, Russian Federation
Launch vehicle:	Rockot
Orbital parameters	
Nodal period:	101 minutes
Inclination:	98.7 degrees
Apogee:	846 kilometres
Perigee:	829 kilometres
Longitude:	1800 hours (local time of the ascending node)
Frequencies and transmitter power:	
Uplink frequency:	2054.927 MHz 2055.415 MHz
Uplink power:	100 W RF from ground station
Downlink frequency:	2231.595 MHz 2232.125 MHz
Downlink power:	0.5 W RF
Purpose:	Astronomical mission to photometrically measure variability in nearby stars
Operating entity:	Canadian Space Agency

8. CanX-1

Names of Launching States:	Canada Russian Federation
Designator:	CanX-1
Date and territory or location of launch:	30 June 2003 Plesetsk, Russian Federation
Launch vehicle:	Rockot
Orbital parameters	
Nodal period:	100 minutes
Inclination:	98.0 degrees (sun-synchronous)
Apogee:	827 kilometres, circular
Perigee:	827 kilometres, circular

Longitude:	1800 hours (local time of the ascending node)
Frequencies and transmitter power:	
Uplink frequency:	center 437.757 MHz, bandwidth 30 kHz
Downlink frequency:	center 437.880 MHz, bandwidth 30 kHz
Downlink power:	less than 1 W
Purpose:	Education, technology research
Operating entity:	University of Toronto Institute for Aerospace Studies Space Flight Laboratory

9. SciSat

Names of Launching States:	Canada United States of America
Designator:	SciSat
Date and territory or location of launch:	12 August 2003 Vandenberg Air Force Base, United States
Launch vehicle:	Pegasus XL Rocket
Orbital parameters	
Nodal period:	not available
Inclination:	74.0 degrees
Apogee:	650 kilometres
Perigee:	650 kilometres
Purpose:	Stratospheric chemistry and ozone science
Operating entity:	Canadian Space Agency

10. Anik F-2

Names of Launching States:	Canada France
Designator:	Anik F-2
Date and territory or location of launch:	17 July 2004 Kourou, French Guiana
Launch vehicle:	Ariane 5G
Orbital parameters	
Nodal period:	Geostationary Earth orbit
Inclination:	Zero ± 0.05 degrees
Apogee:	20 kilometres above synchronous radius
Perigee:	20 kilometres below synchronous radius
Longitude:	111.1 degrees West

Frequencies and transmitter power:	3.7-4.2 GHz 30 W Traveling Wave Tube Amplifiers (TWTAs) 11.7-12.2 GHz 127 W TWTAs 18.3-18.8 GHz 19.7-20.2 GHz
Purpose:	Telecommunications
Operating entity:	Telesat Canada