

**Secretariat**

Distr.: General
26 November 2015
English
Original: French

**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 3 November 2015 from the Permanent Mission
of France to the United Nations (Vienna) addressed to the
Secretary-General**

The Permanent Mission of France 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) and the provisions of General Assembly resolution 62/101, has the honour to submit information on space objects launched by France between 1 January and 31 December 2014 (annex I), information on space objects registered by France that re-entered the Earth's atmosphere between 1 January and 31 December 2014 (annex II) and additional information on space objects registered by France as at 31 December 2014 (annex III).

In 2014, France registered 16 space objects (3 satellites and 13 launcher elements) in the French National Register of Objects Launched into Outer Space, which is maintained by the National Centre for Space Studies (CNES) on behalf of the State, in accordance with articles 12 and 28 of Law No. 2008-518 of 3 June 2008 pertaining to space operations, articles 14-1 to 14-6 of Decree No. 84-510 of 28 June 1984 pertaining to CNES and the provisions of the order of 12 August 2011 establishing the list of information needed to identify a space object.

The Permanent Mission of France also has the honour to inform the Secretary-General that as at 31 December 2014, the French National Register contained 329 space objects, of which 125 were satellites (67 of them in operation) and 204 were launcher elements.



Annex I

Information on space objects launched by France*

Table 1

Registration data on satellites launched by France between 1 January and 31 December 2014

Registration number	Date of the launch	Launch site	Name of the launcher	Basic orbital characteristics				General function of the space object	Launch number	Remarks	
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Satellites	State/ organization
2014-006B	6 February 2014	Kourou, French Guiana	Ariane 5 ECA					Telecommunications satellite	A217	Athena-Fidus	France
2014-030A	26 May 2014	Pacific Ocean	Sea Launch	1 436	0	35 786	35 786	Telecommunications satellite	–	Eutelsat 3B	France
2014-034A	30 June 2014	Sriharikota, India	PSLV	99	98	698	697	Earth observation satellite (Airbus Defence and Space Ltd.)	–	SPOT 7	France

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

Table 2
Registration data on other space objects launched by France between 1 January and 31 December 2014

Registration number	Date of the launch	Launch site	Name of the launcher	Basic orbital characteristics				General function of the space object	Launch number	Remarks	
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Launched space object	State/organization
2014-006C	6 February 2014	Kourou, French Guiana	Ariane 5 ECA	626	6	35 484	262	ESC-A cryogenic upper stage	A217	ESC-A	France
2014-006D	6 February 2014	Kourou, French Guiana	Ariane 5 ECA	558	6	31 927	237	SYLDA carrier structure	A217	SYLDA	France
2014-011C	22 March 2014	Kourou, French Guiana	Ariane 5 ECA	622	3	35 308	229	ESC-A cryogenic upper stage	A216	ESC-A	France
2014-011D	22 March 2014	Kourou, French Guiana	Ariane 5 ECA	551	3	31 563	208	SYLDA carrier structure	A216	SYLDA	France
2014-038E	10 July 2014	Kourou, French Guiana	Soyuz ST-B	276	0	7 692	7 658	Fregat stage	S08	Fregat	France
2014-050C	22 August 2014	Kourou, French Guiana	Soyuz ST-B	702	50	25 878	13 712	Fregat stage	S09	Fregat	France
2014-054C	11 September 2014	Kourou, French Guiana	Ariane 5 ECA	632	6	35 760	264	ESC-A cryogenic upper stage	A218	ESC-A	France
2014-054D	11 September 2014	Kourou, French Guiana	Ariane 5 ECA	620	6	35 144	281	SYLDA carrier structure	A218	SYLDA	France
2014-062C	16 October 2014	Kourou, French Guiana	Ariane 5 ECA	630	6	35 643	268	ESC-A cryogenic upper stage	A220	ESC-A	France
2014-062D	16 October 2014	Kourou, French Guiana	Ariane 5 ECA	622	6	35 268	266	SYLDA carrier structure	A220	SYLDA	France
2014-078C	6 December 2014	Kourou, French Guiana	Ariane 5 ECA	630	6	35 666	246	ESC-A cryogenic upper stage	A221	ESC-A	France
2014-078D	6 December 2014	Kourou, French Guiana	Ariane 5 ECA	627	6	35 539	250	SYLDA carrier structure	A221	SYLDA	France
2014-083E	18 December 2014	Kourou, French Guiana	Soyuz ST-B	277	0	7 696	7 670	Fregat stage	S10	Fregat	France

Table 3
Space objects operated by foreign satellite operators that were launched by France between 1 January and 31 December 2014^a

Registration number	Date of the launch	Launch site	Name of the launcher	Basic orbital characteristics				General function of the space object	Launch number	Remarks	
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Launched space object	State/organization
2014-006A	6 February 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 800	35 773	Telecommunications satellite	A217	ABS 2	ABS
2014-011A	22 March 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 800	35 774	Telecommunications satellite	A216	Amazonas 4A	Spain
2014-011B	22 March 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 795	35 777	Telecommunications satellite	A216	Astra 5B	Luxembourg
2014-016A	3 April 2014	Kourou, French Guiana	Soyuz ST-A	99	98	697	695	Earth observation satellite	S07	Sentinel 1A	European Space Agency (ESA)
2014-024A	30 April 2014	Kourou, French Guiana	Vettore Europeo di Generazione Avanzata	100	99	752	751	Earth observation satellite	VV03	KazEOSat-1	Kazakhstan
2014-038A	10 July 2014	Kourou, French Guiana	Soyuz ST-B	286	0	8 095	7 922	Telecommunications satellite	S08	O3B FM3	United Kingdom of Great Britain and Northern Ireland
2014-038B	10 July 2014	Kourou, French Guiana	Soyuz ST-B	288	0	8 070	8 062	Telecommunications satellite	S08	O3B FM7	United Kingdom
2014-038C	10 July 2014	Kourou, French Guiana	Soyuz ST-B	288	0	8 070	8 062	Telecommunications satellite	S08	O3B FM6	United Kingdom
2014-038D	10 July 2014	Kourou, French Guiana	Soyuz ST-B	288	0	8 072	8 060	Telecommunications satellite	S08	O3B FM8	United Kingdom
2014-044A	29 July 2014	Kourou, French Guiana	Ariane 5 ECA	93	52	413	403	Automated Transfer Vehicle "Georges Lemaître"	A219	ATV 5	ESA

^a These space objects are not registered by France.

Registration number	Date of the launch	Launch site	Name of the launcher	Basic orbital characteristics				General function of the space object	Launch number	Remarks	
				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)			Launched space object	State/organization
2014-050A	22 August 2014	Kourou, French Guiana	Soyuz ST-B	776	50	25 964	17 234	Navigation satellite	S09	Galileo 5	ESA
2014-050B	22 August 2014	Kourou, French Guiana	Soyuz ST-B	703	50	25 917	13 711	Navigation satellite	S09	Galileo 6	ESA
2014-054A	11 September 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 799	35 775	Telecommunications satellite	A218	Optus 10	Australia
2014-054B	11 September 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 797	35 777	Telecommunications satellite	A218	Measat 3B	Malaysia
2014-062A	16 October 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 798	35 775	Telecommunications satellite	A220	Intelsat 30	International Telecommunications Satellite Organization
2014-062B	16 October 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 794	35 780	Telecommunications satellite	A220	ARSAT 1	Argentina
2014-078A	6 December 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 792	35 779	Telecommunications satellite	A221	GSAT 16	India
2014-078B	6 December 2014	Kourou, French Guiana	Ariane 5 ECA	1 436	0	35 790	35 784	Telecommunications satellite	A221	DirecTV 14	United States of America
2014-083A	18 December 2014	Kourou, French Guiana	Soyuz ST-B	281	0	7 843	7 838	Telecommunications satellite	S10	O3B FM10	United Kingdom
2014-083B	18 December 2014	Kourou, French Guiana	Soyuz ST-B	281	0	7 838	7 830	Telecommunications satellite	S10	O3B FM11	United Kingdom
2014-083C	18 December 2014	Kourou, French Guiana	Soyuz ST-B	281	0	7 836	7 814	Telecommunications satellite	S10	O3B FM12	United Kingdom
2014-083D	18 December 2014	Kourou, French Guiana	Soyuz ST-B	281	0	7 839	7 825	Telecommunications satellite	S10	O3B FM9	United Kingdom

Annex II

Information provided by France in conformity with article IV, paragraph 3, of the Convention on Registration of Objects Launched into Outer Space on space objects registered by France that re-entered the Earth's atmosphere between 1 January and 31 December 2014*

<i>Registration number</i>	<i>Date of the launch</i>	<i>General function of the space object</i>	<i>Date of atmospheric re-entry</i>
1999-042B	12 August 1999	Ariane 4 stage	10 March 2014
1999-071B	22 December 1999	Ariane 4 stage	11 April 2014
2010-065C	26 November 2010	Ariane 5 stage	16 August 2014
2008-018D	18 April 2008	Ariane 5 SYLDA	26 September 2014
1991-075B	29 October 1991	Ariane 4 stage	20 October 2014

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

Annex III

Additional information provided by France in conformity with article IV, paragraph 2, of the Convention on Registration of Objects Launched into Outer Space on space objects registered by France as at 31 December 2014*

Table 1
Satellites registered by France and operating in low-Earth orbit^a

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Type of orbit</i>
1.	2002-021A	SPOT 5 Earth observation satellite	820 km Sun-synchronous orbit
2.	2004-049A	HELIOS 2A space observation satellite	Polar orbit
3.	2006-016B	Cloud-Aerosol Lidar and Infrared Pathfinder Satellite Observation (CALIPSO) satellite for three-dimensional characterization of clouds and aerosols	700 km polar orbit
4.	2008-032A	French-American JASON 2 oceanography satellite	1 330 km orbit inclined at 66°
5.	2009-073A	HELIOS 2B space observation satellite	Polar orbit
6.	2010-054A	Globalstar M079 communications satellite	1 400 km orbit inclined at 52°
7.	2010-054B	Globalstar M074 communications satellite	1 400 km orbit inclined at 52°
8.	2010-054C	Globalstar M076 communications satellite	1 400 km orbit inclined at 52°
9.	2010-054D	Globalstar M077 communications satellite	1 400 km orbit inclined at 52°
10.	2010-054E	Globalstar M075 communications satellite	1 400 km orbit inclined at 52°
11.	2010-054F	Globalstar M073 communications satellite	1 400 km orbit inclined at 52°
12.	2011-033A	Globalstar M083 communications satellite	1 400 km orbit inclined at 52°
13.	2011-033B	Globalstar M088 communications satellite	1 400 km orbit inclined at 52°
14.	2011-033C	Globalstar M091 communications satellite	1 400 km orbit inclined at 52°
15.	2011-033D	Globalstar M085 communications satellite	1 400 km orbit inclined at 52°
16.	2011-033E	Globalstar M081 communications satellite	1 400 km orbit inclined at 52°
17.	2011-033F	Globalstar M089 communications satellite	1 400 km orbit inclined at 52°
18.	2011-076A	ELISA W11 listening system microsatellite	Polar orbit
19.	2011-076B	ELISA E24 listening system microsatellite	Polar orbit

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

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Type of orbit</i>
20.	2011-076C	ELISA W23 listening system microsatellite	Polar orbit
21.	2011-076D	ELISA E12 listening system microsatellite	Polar orbit
22.	2011-076F	PLEIADES-1A Earth observation satellite	700 km polar orbit
23.	2011-080A	Globalstar M084 communications satellite	1 400 km orbit inclined at 52°
24.	2011-080B	Globalstar M080 communications satellite	1 400 km orbit inclined at 52°
25.	2011-080C	Globalstar M082 communications satellite	1 400 km orbit inclined at 52°
26.	2011-080D	Globalstar M092 communications satellite	1 400 km orbit inclined at 52°
27.	2011-080E	Globalstar M090 communications satellite	1 400 km orbit inclined at 52°
28.	2011-080F	Globalstar M086 communications satellite	1 400 km orbit inclined at 52°
29.	2012-047A	SPOT 6 Earth observation satellite	700 km polar orbit
30.	2012-068A	PLEIADES-1B Earth observation satellite	700 km polar orbit
31.	2013-005A	Globalstar M097 communications satellite	1 400 km orbit inclined at 52°
32.	2013-005B	Globalstar M093 communications satellite	1 400 km orbit inclined at 52°
33.	2013-005C	Globalstar M094 communications satellite	1 400 km orbit inclined at 52°
34.	2013-005D	Globalstar M096 communications satellite	1 400 km orbit inclined at 52°
35.	2013-005E	Globalstar M078 communications satellite	1 400 km orbit inclined at 52°
36.	2013-005F	Globalstar M095 communications satellite	1 400 km orbit inclined at 52°
37.	2014-034A	SPOT 7 Earth observation satellite	700 km polar orbit

^a Bold font denotes new additions to the table for 2014.

Table 2
French satellites in geostationary orbit and still operational^a

No.	Registration number	Satellite	Orbital position
1.	1996-067A	Eutelsat 48A telecommunications satellite (formerly W48, Eurobird 9, Hot Bird 2)	48° E
2.	1998-013A	Eutelsat 16B telecommunications satellite (formerly Eurobird 16, Hot Bird 4)	16° E
3.	2000-019A	Eutelsat 16C telecommunications satellite (formerly SESAT 1)	14.5° E
4.	2000-028A	Eutelsat 36A telecommunications satellite (formerly W4)	36.1° E
5.	2001-011A	Eutelsat 28A telecommunications satellite (formerly Eurobird 1)	28.5° E
6.	2001-042A	Eutelsat 8 West A telecommunications satellite (formerly Atlantic Bird 2)	8.09° W
7.	2002-035A	Eutelsat 5 West A telecommunications satellite (formerly Atlantic Bird 3)	5° W
8.	2002-038A	Eutelsat Hot Bird 13A telecommunications satellite (formerly Hot Bird 6) redeployed and renamed Eutelsat 8 West C in 2013	7.5° E
9.	2002-040A	Eutelsat 12 West A telecommunications satellite (formerly Atlantic Bird 1)	12.5° W
10.	2002-051A	Eutelsat 70A telecommunications satellite (formerly W5) redeployed and renamed Eutelsat 25C then Eutelsat 33B in 2013	33.1° E
11.	2003-043A	Eutelsat 31A telecommunications satellite (formerly 33A, Eurobird 3, e-Bird)	30.8° E
12.	2004-008A	Eutelsat 7A telecommunications satellite (formerly W3A)	7° E
13.	2005-041B	Syracuse 3A telecommunications satellite	47° E
14.	2006-007B	Eutelsat 9A telecommunications satellite (formerly Eurobird 9A, Hot Bird 7A)	9° E
15.	2006-032A	Eutelsat Hot Bird 13B telecommunications satellite (formerly Hot Bird 8)	13° E
16.	2006-033B	Syracuse 3B telecommunications satellite	5° W
17.	2008-065A	Eutelsat Hot Bird 13C telecommunications satellite (formerly Hot Bird 9)	13° E
18.	2008-065B	Eutelsat 48D telecommunications satellite (formerly 28B, Eutelsat 48B, W2M)	48.1° E
19.	2009-008B	Eutelsat 3C telecommunications satellite (formerly Atlantic Bird 4A, Hot Bird 10) redeployed and renamed Eutelsat Hotbird 13D in 2013	13° E
20.	2009-016A	Eutelsat 10A telecommunications satellite (formerly W2A)	10° E
21.	2009-065A	Eutelsat 36B telecommunications satellite (formerly W7)	35.9° E
22.	2010-069A	Eutelsat KA-SAT 9A telecommunications satellite (formerly KA-SAT)	9° E
23.	2011-051A	Eutelsat 7 West A telecommunications satellite (formerly Atlantic Bird 7)	7.3° W
24.	2011-057A	Eutelsat 16A telecommunications satellite (formerly W3C)	16° E
25.	2012-062B	Eutelsat 21B telecommunications satellite (formerly W6A)	21.5° E
26.	2012-069A	Eutelsat 70B telecommunications satellite (formerly W5A)	70.5° E
27.	2013-022A	Eutelsat 7B telecommunications satellite (formerly 3D, W3D)	7° E

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbital position</i>
28.	2013-044A	Eutelsat 25B telecommunications satellite (formerly EB 2A)	25.5° E
29.	2014-006B	Athena-Fidus telecommunications satellite	25° E
30.	2014-030A	Eutelsat 3B telecommunications satellite	3.1° E

^a Bold font denotes new additions/amendments to the table for 2014.

Table 3
French satellites still in orbit but no longer operational^a

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
1.	1965-096A	AI experimental satellite (Astérix)	Low-Earth orbit (LEO)
2.	1965-101A	FRI technological satellite	LEO
3.	1966-013A	Diapason DI experimental satellite	LEO
4.	1967-011A	Diadème 1 experimental satellite	LEO
5.	1967-014A	Diadème 2 experimental satellite	LEO
6.	1971-071A	EOLE 1 (CAS-A) experimental data-collection satellite	LEO
7.	1974-101A	Symphonie 1 experimental telecommunications satellite	Geostationary Earth orbit (GEO)
8.	1975-010A	Starlette scientific satellite	LEO
9.	1975-077A	Symphonie 2 experimental telecommunications satellite	GEO
10.	1983-058A	Eutelsat I-F1 (ECS 1) telecommunications satellite (European Space Agency (ESA))	GEO
11.	1984-081A	Eutelsat I-F2 (ECS 2) telecommunications satellite (ESA)	GEO
12.	1984-081B	TELECOM 1A telecommunications satellite	GEO
13.	1985-035B	TELECOM 1B telecommunications satellite	GEO
14.	1986-019A	SPOT 1 Earth observation satellite (deorbiting manoeuvres effected in November 2003 to lower the satellite's perigee to below 600 km with a view to achieving re-entry within 25 years)	LEO
15.	1987-078B	Eutelsat I F4 (ECS 4) telecommunications satellite	GEO
16.	1988-018B	TELECOM IC telecommunications satellite	GEO
17.	1988-063B	Eutelsat I-F5 (ECS 5) telecommunications satellite (ESA)	GEO
18.	1988-098A	TDF 1 live television satellite	GEO
19.	1990-005A	SPOT 2 Earth observation satellite (final deorbiting manoeuvres effected on 29 July 2009 to lower the satellite's perigee to below 600 km with a view to achieving re-entry within 25 years)	LEO
20.	1990-063A	TDF2 live television satellite	GEO
21.	1990-079B	Eutelsat II F1 telecommunications satellite	GEO
22.	1991-003B	Eutelsat II F2 telecommunications satellite	GEO
23.	1991-050E	Satellite for Amateur Radio Astronomy (SARA)	LEO
24.	1991-083A	Eutelsat II F3 telecommunications satellite	GEO

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
25.	1991-084A	TELECOM 2A telecommunications satellite	GEO
26.	1992-021A	TELECOM 2B telecommunications satellite	GEO
27.	1992-041B	Eutelsat II F4 telecommunications satellite	GEO
28.	1992-052C	S80/T technological satellite	LEO
29.	1993-031B	ARSENE amateur radio satellite (perigee ~17 000 km)	Geostationary transfer orbit (GTO)
30.	1993-061A	SPOT 3 Earth observation satellite (orbit >800 km)	LEO
31.	1993-061B	STELLA scientific satellite (800 km)	LEO
32.	1995-016B	Hot Bird 1 telecommunications satellite (Eutelsat II F6)	GEO
33.	1995-033A	HELIOS 1A space observation satellite (deactivated in February 2012 following deorbiting manoeuvres)	LEO
34.	1995-033B	CERISE research satellite (orbit ~600 km)	LEO
35.	1995-067A	TELECOM 2C telecommunications satellite	GEO
36.	1996-044B	TELECOM 2D telecommunications satellite (deactivated in November 2012 following deorbiting manoeuvres)	GEO
37.	1997-049A	W75 telecommunications satellite (formerly Eurobird 4, Hot Bird 3) (deactivated in July 2011 following deorbiting manoeuvres)	GEO
38.	1998-017A	SPOT 4 Earth observation satellite, 820 km Sun-synchronous orbit (ceased operating on 29 June 2013)	LEO
39.	1998-056A	Eutelsat W2 telecommunications satellite (deactivated in March 2010 following deorbiting manoeuvres)	GEO
40.	1998-057A	Eutelsat 25A telecommunications satellite (formerly Eurobird 2, Hot Bird 5), redeployed and renamed Eutelsat 4B in 2013 (deactivated in September 2013 following deorbiting manoeuvres)	GEO
41.	1999-018A	Eutelsat 21A telecommunications satellite (formerly W6, W3), redeployed and renamed Eutelsat 48C in 2013 (retired from service on 9 November 2014)	GEO
42.	1999-064A	HELIOS IB space observation satellite (withdrawn from service on 21 October 2004 with a perigee of ~630 km)	LEO
43.	1999-064B	Clémentine experimental satellite (perigee ~600 km)	LEO
44.	2000-052A	Eurobird 4A telecommunications satellite (formerly W1) (deactivated in February 2012 following deorbiting manoeuvres)	GEO

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
45.	2001-055A	French-American Jason-1 oceanography satellite, 1 300 km orbit inclined at 66° (mission ended on 3 July 2013)	LEO
46.	2002-021B	IDEFIX amateur radio satellite (attached to 3rd stage of Ariane 4-V151 launcher, orbit ~800 km)	LEO
47.	2004-025C	DEMETER scientific microsatellite (scientific use terminated in December 2010; deactivated in February 2011, orbit 650 km)	LEO
48.	2004-049C	ESSAIM 1 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010, re-entry in less than 25 years)	LEO
49.	2004-049D	ESSAIM 2 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010, re-entry in less than 25 years)	LEO
50.	2004-049E	ESSAIM 3 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010, re-entry in less than 25 years)	LEO
51.	2004-049F	ESSAIM 4 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010, re-entry in less than 25 years)	LEO
52.	2004-049G	Polarization and Anisotropy of Reflectances for Atmospheric Sciences coupled with Observations from a Lidar (PARASOL) microsatellite for characterization of the radiative and microphysical properties of clouds and aerosols, 700 km polar orbit (ceased operating on 18 December 2013)	LEO
53.	2006-063A	Convection, Rotation and Planetary Transits (COROT) satellite for the study of stars and exoplanet detection (end of lifetime on 17 June 2014)	LEO
54.	2009-008C	Spirale A experimental satellite (deactivated early 2011)	GTO
55.	2009-008D	Spirale B experimental satellite (deactivated early 2011)	GTO
56.	2010-028A	PICARD microsatellite for solar research (end of lifetime on 4 April 2014)	LEO
57.	2010-056A	Eutelsat W3B telecommunications satellite (failed launch into geostationary orbit; remains in GTO)	GTO
58.	2012-006H	Radiation On Bipolar for University Satellite Test Application (ROBUSTA) CubeSat (satellite lost shortly after launch)	LEO

^a Bold font denotes new additions to the table for 2014.