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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 20 March 2019 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 and Other International Organizations in Vienna presents its compliments to the Office for Outer Space Affairs and, in accordance with the provisions of the Convention on Registration of Objects Launched into Outer Space, which was opened for signature on 14 January 1975, and of General Assembly resolution [62/101](#) of 17 December 2007, has the honour to submit the following information on space objects registered by France in 2018.\*

In 2018, France registered 13 space objects (two satellites and 11 launcher elements) in its national register, which is maintained by the National Centre for Space Studies on behalf of the State, in accordance with articles 12 and 28 of Law No. 2008-518 of 3 June 2008 on space operations, articles 14-1 to 14-6 of Decree No. 84-510 of 28 June 1984 on the National Centre, and the provisions of the order of 12 August 2011 establishing the list of information needed to identify a space object.

The following information is provided in the annexes to the present note:

- Pursuant to article IV, paragraph 1, of the Convention, a list of satellites launched into orbit and registered by France (annex I, table 1), a list of space objects launched into orbit and registered by France (annex I, table 2) and a list of satellites launched from French territory on behalf of foreign operators (annex I, table 3)
- Pursuant to article IV, paragraph 3, of the Convention, a list of space objects registered by France that have re-entered the atmosphere (annex II)
- Pursuant to article IV, paragraph 2, of the Convention, additional information in the national register of satellites operating in low Earth orbit (annex III, table 1), satellites operating in geostationary orbit (annex III, table 2) and satellites that remain in orbit but are no longer operational (annex III, table 3)

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\* The data on space objects referenced in the annexes were entered into the Register of Objects Launched into Outer Space on 30 April 2019.



As at 31 December 2018, the national register contained data on 376 space objects, of which 131 were satellites (including 64 operational satellites) and 245 were launcher elements (launcher stages and carrier structures).

With respect to the aforementioned 131 satellites, the following should be noted:

- Forty-six are listed as Eutelsat satellites, in accordance with an agreement that remains in force between France and the intergovernmental organization Eutelsat under which the satellites of Eutelsat are registered by France (19 satellites were launched between 1983 and mid-2001).
- The second-generation Globalstar satellites, of which there are currently 24, are now registered by France in accordance with article 9 of the order of 29 August 2011.
- The MicroSCOPE satellite (launched on 25 April 2016), Eutelsat 16C satellite (launched on 17 April 2000), Eutelsat 59A satellite (launched on 28 August 2002) and Eutelsat 31A satellite (launched on 27 September 2003) have been decommissioned. MicroSCOPE will re-enter the atmosphere naturally, while the other three satellites have been moved into graveyard orbits.
- Communication has been lost with the PicSat satellite (launched on 12 January 2018), which will re-enter the atmosphere naturally.

## Annex I

## Information on space objects launched by France in 2018\*

Table 1  
Registration data on satellites launched by France in 2018

International designator	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
2018-106A	19 December	CSG	Soyuz	Sun-synchronous orbit		800	800	Defence satellite	VS20	CSO-1	France
2018-004X	12 January	SRI	PSLV-XL	94.54	97.51	503	489	Scientific satellite	C40	PicSat	France

Abbreviations: CSG, Guiana Space Centre (Kourou, France); SRI, Satish Dhawan Space Centre (Sriharikota, India).

Table 2  
Registration data on space objects launched by France in 2018

International designator	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
2018-012C	25 January 2018	CSG	Ariane 5 ECA	771.75	21.01	42 787	198	ESC-A cryogenic upper stage	VA241	ESC-A	France
2018-012D	25 January 2018	CSG	Ariane 5 ECA	780.08	20.64	43 151	236	SYLDA carrier structure	VA241	SYLDA	France
2018-024E	9 March 2018	CSG	Soyuz ST-B	276.47	0.08	14 059	14 056.8	Fregat stage	VS18	Fregat	France
2018-033D	5 April 2018	CSG	Ariane 5 ECA	622.74	3.00	35 306.2	250.1	ESC-A cryogenic upper stage	VA242	ESC-A	France
2018-033C	5 April 2018	CSG	Ariane 5 ECA	633.21	3.00	35 845.8	250.6	SYLDA carrier structure	VA242	SYLDA	France
2018-060E	25 July 2018	CSG	Ariane 5 ES	831.31	56.34	50 651.6	7 922.43	EPS stage	VA244	EPS	France
2018-074C	25 September 2018	CSG	Ariane 5 ECA	633.98	6.01	35 886.5	249.3	ESC-A cryogenic upper stage	VA243	ESC-A	France
2018-074D	25 September 2018	CSG	Ariane 5 ECA	632.99	6.00	35 833.9	251.3	SYLDA carrier structure	VA243	SYLDA	France

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

International designator	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
2018-080B	20 October 2018	CSG	Ariane 5 ECA	573.80	5.85	72 666.6	-6 687	ESC-A cryogenic upper stage	VA245	ESC-A	France
2018-100C	4 December 2018	CSG	Ariane 5 ECA	633.98	3.50	35 528.7	243.2	ESC-A cryogenic upper stage	VA246	ESC-A	France
2018-100D	4 December 2018	CSG	Ariane 5 ECA	573.80	3.49	35 857.9	251.3	SYLDA carrier structure	VA246	SYLDA	France

Abbreviation: CSG, Guiana Space Centre.

Table 3  
Satellites operated by foreign satellite operators that were launched by France in 2018<sup>a</sup>

International designator	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
2018-012A	25 January 2018	CSG	Ariane 5 ECA	1 436.15	0.04	35 797	35 778	Telecommunications satellite	VA241	AL YAH 3	United Arab Emirates
2018-012B	25 January 2018	CSG	Ariane 5 ECA	1 436.1	0.02	35 792	35 782	Telecommunications satellite	VA241	SES 14	SES
2018-024A	9 March 2018	CSG	Soyuz ST-B	287.93	0.04	8 070	8 062	Telecommunications satellite	VS18	O3B FM15	SES
2018-024B	9 March 2018	CSG	Soyuz ST-B	287.93	0.04	8 070	8 061	Telecommunications satellite	VS18	O3B FM16	SES
2018-024C	9 March 2018	CSG	Soyuz ST-B	287.93	0.03	8 070	8 061	Telecommunications satellite	VS18	O3B FM14	SES
2018-024D	9 March 2018	CSG	Soyuz ST-B	287.94	0.03	8 073	8 059	Telecommunications satellite	VS18	O3B FM13	SES
2018-033A	5 April 2018	CSG	Ariane 5 ECA	1 436.11	0.04	35 792	35 781	Telecommunications satellite	VA242	Superbird 8	Japan
2018-033B	5 April 2018	CSG	Ariane 5 ECA	1 436.12	0.06	35 793	35 781	Telecommunications satellite	VA242	HYLAS 4	United Kingdom
2018-060D	25 July 2018	CSG	Ariane 5 ES	844.69	56.48	23 240	23 204	Navigation satellite	VA244	Galileo 24 (2C0)	European Union
2018-060C	25 July 2018	CSG	Ariane 5 ES	844.69	56.48	23 240	23 204	Navigation satellite	VA244	Galileo 23 (2C9)	European Union
2018-060B	25 July 2018	CSG	Ariane 5 ES	844.69	56.48	23 241	23 203	Navigation satellite	VA244	Galileo 26 (2C2)	European Union

International designator	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
2018-060A	25 July 2018	CSG	Ariane 5 ES	844.69	56.48	23 241	23 203	Navigation satellite	VA244	Galileo 25 (2C1)	European Union
2018-066A	22 August 2018	CSG	VEGA	90.75	96.71	318	305	Observation satellite	VV12	Aeolus	European Space Agency
2018-074A	25 September 2018	CSG	Ariane 5 ECA	1 436.15	0.01	35 794	35 781	Telecommunications satellite	VA243	Azerspace 2/ Intelsat 38	Azerbaijan
2018-074B	25 September 2018	CSG	Ariane 5 ECA	1 436.14	0.01	35 790	35 784	Telecommunications satellite	VA243	Horizons 3E	Intelsat
2018-080A	20 October 2018	CSG	Ariane 5 ECA	Escape orbit around Mercury				Exploration satellite	VA245	BepiColombo	European Space Agency
2018-087A	7 November 2018	CSG	Soyuz ST-B	101.3	98.72	822	819	Meteorological satellite	VS19	METOP-C	EUMETSAT
2018-095A	21 November 2018	CSG	VEGA	97.49	97.95	640	638	Observation satellite	VV13	Mohammed VI-B	Morocco
2018-100A	4 December 2018	CSG	Ariane 5 ECA	1 436.15	0.02	35 795	35 780	Meteorological satellite	VA246	GEOKompsat-2A	Republic of Korea
2018-100B	4 December 2018	CSG	Ariane 5 ECA	1 436.1	0.12	35 805	35 768	Telecommunications satellite	VA246	GSAT 11	India

*Abbreviations:* CSG, Guiana Space Centre; EUMETSAT, European Organization for the Exploitation of Meteorological Satellites.

<sup>a</sup> These space objects are not registered by France.

**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 in 2018\***

<i>International registration number</i>	<i>Date of the launch</i>	<i>General function of the space object</i>	<i>Date of atmospheric re-entry</i>
2009-008E	12 February 2009	Ariane 5 SYLDA	3 February 2018
2011-016D	22 April 2011	Ariane 5 SYLDA	27 February 2018
2007-016D	4 May 2007	Ariane 5 SYLDA	3 April 2018
2010-070D	29 December 2010	Ariane 5 SYLDA	28 October 2018

*Note:* Data do not include re-entering debris generated by objects that remain in orbit or that had previously re-entered the atmosphere.

\* 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 2018\*

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

No.	Registration number	Satellite	Type of orbit
1.	2004-049A	Helios 2A space observation satellite	Polar orbit
2.	2006-016B	CALIPSO satellite for three-dimensional characterization of clouds and aerosols	700 km polar orbit
3.	2008-032A	French-American Jason 2 oceanography satellite	1 330 km orbit inclined at 66°
4.	2009-073A	Helios 2B space observation satellite	Polar orbit
5.	2010-054A	Globalstar M079 communication satellite	1 400 km orbit inclined at 52°
6.	2010-054B	Globalstar M074 communication satellite	1 400 km orbit inclined at 52°
7.	2010-054C	Globalstar M076 communication satellite	1 400 km orbit inclined at 52°
8.	2010-054D	Globalstar M077 communication satellite	1 400 km orbit inclined at 52°
9.	2010-054E	Globalstar M075 communication satellite	1 400 km orbit inclined at 52°
10.	2010-054F	Globalstar M073 communication satellite	1 400 km orbit inclined at 52°
11.	2011-033A	Globalstar M083 communication satellite	1 400 km orbit inclined at 52°
12.	2011-033B	Globalstar M088 communication satellite	1 400 km orbit inclined at 52°
13.	2011-033C	Globalstar M091 communication satellite	1 400 km orbit inclined at 52°
14.	2011-033D	Globalstar M085 communication satellite	1 400 km orbit inclined at 52°
15.	2011-033E	Globalstar M081 communication satellite	1 400 km orbit inclined at 52°
16.	2011-033F	Globalstar M089 communication satellite	1 400 km orbit inclined at 52°
17.	2011-076A	ELISA W11 listening system microsatellite	Polar orbit
18.	2011-076B	ELISA E24 listening system microsatellite	Polar orbit
19.	2011-076C	ELISA W23 listening system microsatellite	Polar orbit
20.	2011-076D	ELISA E12 listening system microsatellite	Polar orbit

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

No.	Registration number	Satellite	Type of orbit
21.	2011-076F	Pleiades-1A	Earth observation satellite 700 km polar orbit
22.	2011-080A	Globalstar M084	communication satellite 1 400 km orbit inclined at 52°
23.	2011-080B	Globalstar M080	communication satellite 1 400 km orbit inclined at 52°
24.	2011-080C	Globalstar M082	communication satellite 1 400 km orbit inclined at 52°
25.	2011-080D	Globalstar M092	communication satellite 1 400 km orbit inclined at 52°
26.	2011-080E	Globalstar M090	communication satellite 1 400 km orbit inclined at 52°
27.	2011-080F	Globalstar M086	communication satellite 1 400 km orbit inclined at 52°
28.	2012-047A	SPOT 6	Earth observation satellite 700 km polar orbit
29.	2012-068A	Pleiades-1B	Earth observation satellite 700 km polar orbit
30.	2013-005A	Globalstar M097	communication satellite 1 400 km orbit inclined at 52°
31.	2013-005B	Globalstar M093	communication satellite 1 400 km orbit inclined at 52°
32.	2013-005C	Globalstar M094	communication satellite 1 400 km orbit inclined at 52°
33.	2013-005D	Globalstar M096	communication satellite 1 400 km orbit inclined at 52°
34.	2013-005E	Globalstar M078	communication satellite 1 400 km orbit inclined at 52°
35.	2013-005F	Globalstar M095	communication satellite 1 400 km orbit inclined at 52°
36.	2017-036AD	Robusta 1B	505 km orbit inclined at 97°
<b>37.</b>	<b>2018-106A</b>	<b>CSO-1</b>	<b>Polar orbit</b>

Note: Bold font shows additions made in 2018.

Table 2  
Satellites registered by France and operating in geostationary orbit

No.	Registration number	Satellite	Orbital position
<b>1.</b>	<b>2000-028A</b>	<b>Eutelsat 70 E telecommunications satellite (formerly Eutelsat 12 West C, Eutelsat 80A, Eutelsat 88A, Eutelsat-70C and Eutelsat 36A)</b>	<b>70.3° E</b>
<b>2.</b>	<b>2001-011A</b>	<b>Eutelsat 133 WA telecommunications satellite (formerly Eutelsat 33C, Eutelsat 28A and Eurobird 1)</b>	<b>-132.85° E</b>
3.	2001-042A	Eutelsat 12WB telecommunications satellite (8 West A (formerly Atlantic Bird 2))	12.7° W
4.	2002-035A	Eutelsat 5 West A telecommunications satellite (formerly Atlantic Bird 3)	5° W
5.	2004-008A	Eutelsat 7A telecommunications satellite (formerly W3A)	7° E
6.	2005-041B	Syracuse 3A telecommunications satellite	47° E
7.	2006-007B	Hot Bird 13E telecommunications satellite (formerly Eutelsat 9A, Eurobird 9A and Hot Bird 7A)	13° E

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbital position</i>
8.	2006-032A	Eutelsat Hot Bird 13B telecommunications satellite (formerly Hot Bird 8)	13° E
9.	2006-033B	Syracuse 3B telecommunications satellite	5° W
10.	2008-065A	Eutelsat Hot Bird 13C telecommunications satellite (formerly Hot Bird 9)	13° E
11.	2008-065B	Eutelsat 48D telecommunications satellite (formerly 28B, Eutelsat 48B and W2M)	48.1° E
12.	2009-008B	Eutelsat 33E telecommunications satellite (formerly Eutelsat Hot Bird 13D, Eutelsat 3C, Atlantic Bird 4A and Hot Bird 10)	33.1° E
13.	2009-016A	Eutelsat 10A telecommunications satellite (formerly W2A)	10° E
14.	2009-065A	Eutelsat 36B telecommunications satellite (formerly W7)	35.9° E
15.	2010-069A	Eutelsat KA-SAT 9A telecommunications satellite (formerly KA-SAT)	9° E
16.	2011-051A	Eutelsat 7 West A telecommunications satellite (formerly Atlantic Bird 7)	7.3° W
17.	2011-057A	Eutelsat 16A telecommunications satellite (formerly W3C)	16° E
18.	2012-062B	Eutelsat 21B telecommunications satellite (formerly W6A)	21.5° E
19.	2012-069A	Eutelsat 70B telecommunications satellite (formerly W5A)	70.5° E
20.	2013-022A	Eutelsat 7B telecommunications satellite (3D (formerly W3D))	7° E
21.	2013-044A	Eutelsat 25B telecommunications satellite (formerly EB 2A)	25.5° E
22.	2014-006B	Athena-Fidus telecommunications satellite	25° E
23.	2014-030A	Eutelsat 3B telecommunications satellite	3.1° E
24.	2015-039B	Eutelsat 8 West B telecommunications satellite	8° W
25.	2016-005A	Eutelsat 9B telecommunications satellite	9° E
26.	2016-014A	Eutelsat 65WA telecommunications satellite	65° W
27.	2017-029B	Eutelsat 172B telecommunications satellite	172° E

Note: Bold font shows amendments made in 2018.

Table 3  
**Satellites registered by France that remain in orbit but are no longer operational**

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
1.	1965-096A	A1 experimental satellite (Astérix)	Low Earth orbit (LEO)
2.	1965-101A	FR-1 technological satellite	LEO
3.	1966-013A	Diapason D1 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

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
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 1C telecommunications satellite	GEO
17.	1988-063B	Eutelsat I F5 (ECS 5) telecommunications satellite (ESA)	GEO
18.	1988-098A	TDF1 live television satellite	GEO
19.	1990-005A	SPOT 2 Earth observation satellite (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
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 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)	GEO

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
		manoeuvres)	
37.	1996-067A	Eutelsat 48A telecommunications satellite (formerly W48, Eurobird 9 and Hot Bird 2)	GEO
38.	1997-049A	Telecommunications satellite W75 (formerly Eurobird 4 and Hot Bird 3) (deactivated in July 2011 following deorbiting manoeuvres)	GEO
39.	1998-013A	Eutelsat 16B telecommunications satellite (formerly Eurobird 16 and Hot Bird 4)	GEO
40.	1998-017A	SPOT 4 Earth observation satellite, 820 km sun-synchronous orbit (ceased operating on 29 June 2013)	LEO
41.	1998-056A	Eutelsat W2 telecommunications satellite (deactivated in March 2010 following deorbiting manoeuvres)	GEO
42.	1998-057A	Eutelsat 25A telecommunications satellite (formerly Eurobird 2 and Hot Bird 5) redeployed and renamed Eutelsat 4B in 2013 (deactivated in September 2013 following deorbiting manoeuvres)	GEO
43.	1999-018A	Eutelsat 21A telecommunications satellite (formerly W6 and W3) redeployed and renamed Eutelsat 48C in 2013 (decommissioned on 9 November 2014)	GEO
44.	1999-064A	HELIOS 1B space observation satellite (ceased operating on 21 October 2004 > perigee ~630 km)	LEO
45.	1999-064B	Clémentine experimental satellite (perigee ~600 km)	LEO
<b>46.</b>	<b>2000-019A</b>	<b>Eutelsat 16C telecommunications satellite (formerly SESAT 1)</b>	<b>GEO</b>
47.	2000-052A	Eurobird 4A telecommunications satellite (formerly W1) (deactivated in February 2012 following deorbiting manoeuvres)	GEO
48.	2001-055A	French-American Jason-1 oceanography satellite, orbit inclined at 66° (mission ended on 3 July 2013)	LEO
49.	2002-021A	SPOT 5 Earth observation satellite (820 km sun-synchronous orbit)	LEO
50.	2002-021B	IDEFIX amateur radio satellite (attached to third stage of Ariane 4-V151 launcher; orbit ~800 km)	LEO
51.	2002-038A	Eutelsat 70D telecommunications satellite (formerly Hot Bird 13A); decommissioned on 7 August 2016	GEO
<b>52.</b>	<b>2002-040A</b>	<b>Eutelsat 59A telecommunications satellite (formerly Eutelsat 36WA, Eutelsat 12 WA and Atlantic Bird 1)</b>	<b>GEO</b>
53.	2002-051A	Eutelsat 70A telecommunications satellite (formerly W5); redeployed and renamed Eutelsat 25C in 2013, then Eutelsat 33B	GEO
<b>54.</b>	<b>2003-043A</b>	<b>Eutelsat 31A telecommunications satellite (formerly 33A, Eurobird 3 and e-Bird)</b>	<b>GEO</b>
55.	2004-025C	DEMETER scientific microsatellite (scientific use terminated in December 2010; deactivated in February 2011; orbit 650 km)	LEO
56.	2004-049C	Essaim 1 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010; re-entry within 25 years)	LEO
57.	2004-049D	Essaim 2 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010; re-entry within 25 years)	LEO
58.	2004-049E	Essaim 3 satellite for characterization of Earth's electromagnetic environment (ceased operating in	LEO

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
		October 2010; re-entry within 25 years)	
59.	2004-049F	Essaim 4 satellite for characterization of Earth's electromagnetic environment (ceased operating in October 2010; re-entry within 25 years)	LEO
60.	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
61.	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
62.	2009-008C	Spirale A experimental satellite (deactivated early 2011)	GTO
63.	2009-008D	Spirale B experimental satellite (deactivated early 2011)	GTO
64.	2010-028A	Picard microsatellite for solar research (end of lifetime on 4 April 2014)	LEO
65.	2010-056A	Eutelsat W3B telecommunications satellite (failed launch into geostationary orbit; remains in GTO)	GTO
<b>66.</b>	<b>2016-025B</b>	<b>MicroSCOPE scientific satellite</b>	<b>LEO</b>
<b>67.</b>	<b>2018-004X</b>	<b>PicSat (launched in January 2018; communication lost in March 2018)</b>	<b>LEO</b>

*Note:* Bold font shows additions made in 2018.