



**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 March 2020 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, has the honour to submit the following information for 2019 concerning 16 space objects (6 satellites and 10 launcher elements) registered by France.

In accordance with Act No. 2008-518 of 3 June 2008 (articles 12 and 28), Decree No. 84-510 of 28 June 1984 as amended (articles 14.1 to 14.6) and the Order of 12 August 2011, the National Centre for Space Studies maintains the national register of space objects.

The annexes to the present note contain the following information for 2019:

- Pursuant to article IV, paragraph 1, of the Convention, a list of satellites registered by France (annex I, table 1), a list of space objects launched and registered by France (annex I, table 2) and a list of satellites launched by France on behalf of foreign operators (annex I, table 3)¹
- 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, and in implementation of the recommendations made by the Committee on the Peaceful Uses of Outer Space, France wishes to furnish the following additional information concerning space objects listed in its national register: 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)

As at 31 December 2019, the national register of space objects contained information on 388 space objects, as follows:

- 137 satellites (of which 69 were operational)
- 251 launcher elements (launcher stages and carrier structures)

¹ The data on space objects referenced in the annexes were entered into the Register of Objects Launched into Outer Space on 31 March 2020.



- Of the aforementioned 137 satellites, it should be noted that 48 satellites are catalogued as Eutelsat satellites and that the satellites of the intergovernmental organization Eutelsat are registered by France in accordance with an agreement that remains in force between France and that organization (19 satellites were launched between 1983 and mid-2001)
- The second-generation Globalstar satellites, of which there are currently 24, are registered by France in accordance with the Order of 29 August 2011 (article 9)
- The French-American oceanography satellite Jason-2 has been decommissioned
- The ROBUSTA 1C university CubeSat is unresponsive and is likely to be the object catalogued as 2019-038K by Space-Track

Annex I

Information on space objects launched by France in 2019*

Table 1
Satellites registered by France in 2019

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
2019-034B	20 June	CSG	Ariane 5 ECA	1 436.18	0.01	35 798	35 778	Telecommunications	VA248	Eutelsat 7C
2019-038K	5 July	Vostochny	Soyuz	95.25	97.52	548	514	Scientific satellite		ROBUSTA 1C ^a
2019-054A	19 August	Mahia	Electron	95.46	45.02	549	533	Unseenlabs maritime surveillance		BRO-1
2019-067A	9 October	Baikonur	Proton	1 436.09	0.04	35 794	35 779	Telecommunications		Eutelsat 5WB
2019-092D	18 December	CSG	Soyuz	94.97	97.45	526	509	CNES & Hemeria cubesat for the Argos environmental monitoring system	VS23	ANGELS
2019-092E	18 December	CSG	Soyuz	94.95	97.45	526	507	Scientific satellite	VS23	EyeSat-Nano

Abbreviations: CSG, Guiana Space Centre (Kourou, France)

^a The object identified as 038 by Space-Track is probably this satellite.

Table 2
Space objects registered by France in 2019

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
2019-007C	5 February	Kourou (France)	AR5 ECA	634.40	3.00	35 911	246.7	ESC-A cryogenic upper stage	VA247	ESC-A
2019-007D	5 February	Kourou (France)	AR5 ECA	633.67	3.00	35 872.5	247.7	SYLDA carrier structure	VA247	SYLDA

* 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
2019-020E	4 April	Kourou (France)	Soyuz ST-B	276.45	0.08	7 681.27	7 677.53	Fregat upper stage	VS22	Fregat
2019-034C	20 June	Kourou (France)	AR5 ECA	625.47	5.98	35 467.8	229.8	ESC-A cryogenic upper stage	VA248	ESC-A
2019-034D	20 June	Kourou (France)	AR5 ECA	633.24	5.99	35 847.8	250.1	SYLDA carrier structure	VA248	SYLDA
2019-049C	6 August	Kourou (France)	AR5 ECA	627.77	4.50	35 584.8	231.4	ESC-A cryogenic upper stage	VA249	ESC-A
2019-049D	6 August	Kourou (France)	AR5 ECA	633.71	4.50	35 872.7	249.5	SYLDA carrier structure	VA249	SYLDA
2019-080C	26 November	Kourou (France)	AR5 ECA	626.36	5.01	35 507.9	235.8	ESC-A cryogenic upper stage	VA250	ESC-A
2019-080D	26 November	Kourou (France)	AR5 ECA	633.55	5.00	35 863.3	250.7	SYLDA carrier structure	VA250	SYLDA
2019-092C	18 December	Kourou (France)	Soyuz ST-A	95.48	98.00	542.19	542	Carrier structure for multiple launches	VS23	ASAP-S ^a

Note: The VS21 and VV14 launchers did not leave an object in orbit; flight VV15 failed.

^a The ASAP-S multi-satellite carrier structure is incorrectly classified as a payload by Space-Track.

Table 3
Satellites launched by France on behalf of foreign operators in 2019^a

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
2019-007A	5 February	Kourou (France)	AR5 ECA	1 436.11	0.07	35 800	35 773	Telecommunications satellite	VA247	SaudiGeoSat1/ HellasSat4	Saudi Arabia/Greece
2019-007B	5 February	Kourou (France)	AR5 ECA	1 436.11	0.05	35 809	35 764	Telecommunications satellite	VA247	GSAT 31	India
2019-010A	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 177	Telecommunications satellite	VS21	OneWeb-0012	United Kingdom
2019-010B	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 177	Telecommunications satellite	VS21	OneWeb-0010	United Kingdom
2019-010C	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 176	Telecommunications satellite	VS21	OneWeb-0008	United Kingdom

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
2019-010D	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 176	Telecommunications satellite	VS21	OneWeb-0007	United Kingdom
2019-010E	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 176	Telecommunications satellite	VS21	OneWeb-0006	United Kingdom
2019-010F	27 February	Kourou (France)	Soyuz ST-B	108.94	87.92	1 179	1 176	Telecommunications satellite	VS21	OneWeb-0011	United Kingdom
2019-015A	22 March	Kourou (France)	VEGA	97.06	97.88	619	617	Earth observation	VV14	PRISMA	Italy
2019-020A	4 April	Kourou (France)	Soyuz ST-B	287.93	0.04	8 070	8 062	Telecommunications satellite	VS22	O3B FM20	O3B
2019-020B	4 April	Kourou (France)	Soyuz ST-B	287.93	0.04	8 071	8 060	Telecommunications satellite	VS22	O3B FM19	O3B
2019-020C	4 April	Kourou (France)	Soyuz ST-B	287.93	0.05	8 070	8 062	Telecommunications satellite	VS22	O3B FM17	O3B
2019-020D	4 April	Kourou (France)	Soyuz ST-B	287.93	0.04	8 070	8 062	Telecommunications satellite	VS22	O3B FM18	O3B
2019-034A	20 June	Kourou (France)	AR5 ECA	90.75	96.71	318	305	Telecommunications satellite	VA248	AT&T T-16	United States of America
2019-049A	6 August	Kourou (France)	AR5 ECA	1 436.04	0.04	35 788	35 783	Telecommunications satellite	VA249	EDRS-C	European Space Agency (ESA)
2019-049B	6 August	Kourou (France)	AR5 ECA	1 436.11	0.02	35 789	35 785	Telecommunications satellite	VA249	Intelsat 39	International Telecommunications Satellite Organization
2019-080A	26 November	Kourou (France)	AR5 ECA	1 436.14	0.04	35 798	35 777	Telecommunications satellite	VA250	Tiba-1	Egypt
2019-080B	26 November	Kourou (France)	AR5 ECA	1 436.08	0.04	35 795	35 778	Telecommunications satellite	VA250	Inmarsat GX5	Inmarsat/United Kingdom
2019-092A	18 December	Kourou (France)	Soyuz ST-A	97.22	97.81	627	625	Earth observation	VS23	CSG-1	Italy
2019-092B	18 December	Kourou (France)	Soyuz ST-A	98.85	98.23	711	696	Scientific satellite	VS23	CHEOPS	ESA
2019-092F	18 December	Kourou (France)	Soyuz ST-A	95.04	97.46	531	510	Technology demonstration	VS23	OPS-SAT	ESA

^a 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 2019*

<i>International designator</i>	<i>Date of the launch</i>	<i>General function of the space object</i>	<i>Date of atmospheric re-entry</i>
1997-002C	30 January 1997	Ariane 44L R/B	24 February 2019
2015-022D	26 April 2015	SYLDA Ariane 5	10 March 2019
2012-043D	2 August 2012	Ariane 5 stage	7 May 2019
2014-078D	6 December 2014	SYLDA Ariane 5	15 June 2019

Note: These 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 2019*

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	Sun-synchronous orbit
2.	2006-016B	CALIPSO satellite for three-dimensional characterization of clouds and aerosols	700 km sun-synchronous orbit
3.	2009-073A	HELIOS 2B space observation satellite	Sun-synchronous orbit
4.	2010-054A	Globalstar M079 communication satellite	1,400 km orbit inclined at 52°
5.	2010-054B	Globalstar M074 communication satellite	1,400 km orbit inclined at 52°
6.	2010-054C	Globalstar M076 communication satellite	1,400 km orbit inclined at 52°
7.	2010-054D	Globalstar M077 communication satellite	1,400 km orbit inclined at 52°
8.	2010-054E	Globalstar M075 communication satellite	1,400 km orbit inclined at 52°
9.	2010-054F	Globalstar M073 communication satellite	1,400 km orbit inclined at 52°
10.	2011-033A	Globalstar M083 communication satellite	1,400 km orbit inclined at 52°
11.	2011-033B	Globalstar M088 communication satellite	1,400 km orbit inclined at 52°
12.	2011-033C	Globalstar M091 communication satellite	1,400 km orbit inclined at 52°
13.	2011-033D	Globalstar M085 communication satellite	1,400 km orbit inclined at 52°
14.	2011-033E	Globalstar M081 communication satellite	1,400 km orbit inclined at 52°
15.	2011-033F	Globalstar M089 communication satellite	1,400 km orbit inclined at 52°
16.	2011-076A	ELISA W11 listening system microsatellite	Sun-synchronous orbit
17.	2011-076B	ELISA E24 listening system microsatellite	Sun-synchronous orbit
18.	2011-076C	ELISA W23 listening system microsatellite	Sun-synchronous orbit
19.	2011-076D	ELISA E12 listening system microsatellite	Sun-synchronous orbit
20.	2011-076F	PLEIADES-1A Earth observation satellite	700 km sun-synchronous 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>
21.	2011-080A	Globalstar M084 communication satellite	1,400 km orbit inclined at 52°
22.	2011-080B	Globalstar M080 communication satellite	1,400 km orbit inclined at 52°
23.	2011-080C	Globalstar M082 communication satellite	1,400 km orbit inclined at 52°
24.	2011-080D	Globalstar M092 communication satellite	1,400 km orbit inclined at 52°
25.	2011-080E	Globalstar M090 communication satellite	1,400 km orbit inclined at 52°
26.	2011-080F	Globalstar M086 communication satellite	1,400 km orbit inclined at 52°
27.	2012-047A	SPOT 6 Earth observation satellite	700 km sun-synchronous orbit
28.	2012-068A	PLEIADES-1B Earth observation satellite	700 km sun-synchronous orbit
29.	2013-005A	Globalstar M097 communication satellite	1,400 km orbit inclined at 52°
30.	2013-005B	Globalstar M093 communication satellite	1,400 km orbit inclined at 52°
31.	2013-005C	Globalstar M094 communication satellite	1,400 km orbit inclined at 52°
32.	2013-005D	Globalstar M096 communication satellite	1,400 km orbit inclined at 52°
33.	2013-005E	Globalstar M078 communication satellite	1,400 km orbit inclined at 52°
34.	2013-005F	Globalstar M095 communication satellite	1,400 km orbit inclined at 52°
35.	2017-036AD	Robusta 1B	505 km orbit inclined at 97°
36.	2018-106A	CSO-1	Sun-synchronous orbit
37.	2019-054A	BRO-1	540 km orbit inclined at 45°
38.	2019-038K	ROBUSTA 1C (“Object K”)	530 km sun-synchronous orbit
39.	2019-092D	ANGELS	500 km sun-synchronous orbit
40.	2019-092E	EyeSat	500 km sun-synchronous orbit

Note: Bold font shows additions made in 2019.

Table 2
Satellites registered by France and operating in geostationary orbit

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbital position</i>
1.	2000-028A	Eutelsat 48 E telecommunications satellite (formerly Eutelsat 70 E, Eutelsat 12 West C, Eutelsat 80A, Eutelsat 88A, Eutelsat-70C and Eutelsat 36A)	48° E
2.	2001-011A	Eutelsat 133 WA telecommunications satellite (formerly Eutelsat 33C, Eutelsat 28A and Eurobird 1)	-132.85° E
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

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbital position</i>
5.	2004-008A	Eutelsat 7A telecommunications satellite (formerly W3A)	7° E
6.	2005-041B	Syracuse 3A telecommunications satellite	47° E
7.	2006-007B	HOTBIRD 13E telecommunications satellite (formerly Eutelsat 9A, Eurobird 9A and Hot Bird 7A)	13° E
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 Hotbird 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
28.	2019-034B	Eutelsat 7C telecommunications satellite	7° E
29.	2019-067A	Eutelsat 5WB telecommunications satellite	5° W

Note: Bold font shows amendments made in 2019.

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

No.	Registration number	Satellite	Orbit
1.	1965-096A	A1 experimental satellite (Astérix)	Low Earth orbit (LEO)
2.	1965-101A	FR1 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
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 telecommunications satellite (ECS 1, ESA)	GEO
11.	1984-081A	Eutelsat I F2 telecommunications satellite (ECS 2, 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 telecommunications satellite (ECS 4)	GEO
16.	1988-018B	TELECOM 1C telecommunications satellite	GEO
17.	1988-063B	Eutelsat I F5 telecommunications satellite (ECS 5, ESA)	GEO
18.	1988-098A	TDF1 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
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

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
29.	1993-031B	ARSENE amateur radio satellite (perigee ~17 000 km)	Geostationary transfer orbit (GTO)
30.	1993-061A	SPOT 3 Earth observation satellite (> 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 (~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.	1996-067A	Eutelsat 48A telecommunications satellite (formerly W48, Eurobird 9 and Hot Bird 2)	GEO
38.	1997-049A	W75 telecommunications satellite (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	Telecommunications satellite Eutelsat 25A (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	Telecommunications satellite Eutelsat 21A (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
46.	2000-052A	Eurobird 4A telecommunications satellite (formerly W1) (deactivated in February 2012 following deorbiting manoeuvres)	GEO
47.	2001-055A	French-American Jason 1 oceanography satellite (orbit inclined at 66°; mission ended on 3 July 2013)	LEO
48.	2002-021A	SPOT 5 Earth observation satellite (820 km sun-synchronous orbit)	LEO
49.	2002-021B	IDEFIX amateur radio satellite (attached to third stage of Ariane 4-V151; orbit ~800 km)	LEO
50.	2002-038A	Eutelsat 70D telecommunications satellite (formerly Hot Bird 13A), decommissioned on 7 August 2016	GEO
51.	2002-051A	Eutelsat 70A telecommunications satellite (formerly W5), redeployed and renamed Eutelsat 25C in 2013, then Eutelsat 33B)	GEO
52.	2004-025C	DEMETER scientific microsatellite (scientific use terminated in December 2010; deactivated in February 2011); 650 km)	LEO
53.	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

<i>No.</i>	<i>Registration number</i>	<i>Satellite</i>	<i>Orbit</i>
54.	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
55.	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
56.	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
57.	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
58.	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
59.	2009-008C	Spirale A experimental satellite (deactivated early 2011)	GTO
60.	2009-008D	Spirale A experimental satellite (deactivated early 2011)	GTO
61.	2010-028A	PICARD microsatellite for solar research (end of lifetime on 4 April 2014)	LEO
62.	2010-056A	Eutelsat W3B telecommunications satellite (failed launch into geostationary orbit. In GTO)	GTO
63.	2016-025B	MICROSCOPE scientific satellite	LEO
64.	2000-019A	Eutelsat 16C telecommunications satellite (formerly SESAT 1)	GEO
65.	2002-040A	Eutelsat 59 A telecommunications satellite (formerly Eutelsat 36WA, Eutelsat 12 WA and Atlantic Bird 1)	GEO
66.	2003-043A	Eutelsat 31 A telecommunications satellite (formerly 33A, Eurobird 3 and e-Bird)	GEO
67.	2018-004X	PICSAT (launched in January 2018 and lost in March 2018)	LEO
68.	2008-032A	French-American Jason 2 oceanography satellite	LEO

Note: Bold font shows additions made in 2019.