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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 28 October 2020 from the Permanent Mission of Spain to the United Nations (Vienna) addressed to the Secretary-General

The Permanent Mission of Spain 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 General Assembly resolution 1721 B (XIV), has the honour to transmit information concerning the following space objects launched by Spain into outer space: UMPSat-2, SpainSat, NanoSat-1B, Paz, HumSat-D, OPTOS, Xatcobeo, Hispasat 30W-6, 3Cat-1, Aistechsat-2, Aistechsat-3, Lume-1, FossaSat 1, 3Cat-5/A, 3Cat-5/B and 3Cat-2 (see annex).<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> The data on space objects referenced in the annex were entered into the Register of Objects Launched into Outer Space on 3 November 2020.





## Annex 4

## **Registration data on space objects launched by Spain**\*

Committee on Space Research international designator	National designator/ registration number as used by State of registry		State of registry	Date and time of the launch	Territory or location of launch	Basic orbital parameters					
		Name				Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date when space object is no longer functional
2020-061	ROLEU.ESP.12	UMPSat-2	Spain	3 September 2020	Kourou, French Guiana	5 694.78	97.458	527.856	508.161	Educational and scientific mission; technology demonstration	-
2006-007A	ROLEU.ESP.13	SpainSat	Spain	11 March 2006	Kourou, French Guiana	1 440	0	35 786	35 786	Provision of space capacity for governmental telecommunications services	
2009-041E	ROLEU.ESP.14	NanoSat-1B	Spain	29 July 2009	Baikonur, Kazakhstan	97.3	98.1	683.3	594.2	Scientific research; technology demonstration	-
2018-020A	ROLEU.ESP.15	Paz	Spain	22 February 2018	Vandenberg Air Force Base, United States of America	94.51	97.5± 0.02	515.9	493.9	Provision of Earth observation images for maritime surveillance applications, mapping, defence and security, risks and emergencies, land use planning, civil engineering and environmental monitoring through the capture of images 24 hours a day regardless of atmospheric conditions, day or night	-
2013-066T	ROLEU.ESP.16	HumSat-D	Spain	21 November 2013	Yasny, Russian Federation	96.93	97.788	636	588	Educational. Demonstration of the HUMSAT concept. System for the collection of data from terrestrial sensors. Radiation measurements for the National Institute of Aerospace Technology (INTA) of Spain	-
2012-006F	ROLEU.ESP.17	Xatcobeo	Spain	13 February 2012	Kourou, French Guiana	95.5	69.452	800	287	Educational project in collaboration with the Education Office of the European Space Agency (ESA)	31 August 2014
2018-023A	ROLEU.ESP.18	Hispasat 30W-6	Spain	6 March 2018	Cape Canaveral, United States	1 436	0	35 786	35 786	Provision of space capacity for telecommunications services	-

\* The information was submitted using the form prepared pursuant to General Assembly resolution <u>62/101</u> and has been reformatted by the Secretariat.

Committee on Space Research international designator	National designator/ registration number as used by State of registry	State		5	Territory or location of launch	Basic orbital parameters					
			State of registry			Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date when space object is no longer functional
2018-096K	ROLEU.ESP.19	3Cat-1	Spain	29 November 2018	Satish Dhawan Space Centre, Sriharikota, India	94.3	97.5	505.5	479.6	Education, technology demonstration and Earth observation through a VGA camera	-
2018-099L	ROLEU.ESP.20	Aistechsat-2	Spain	3 December 2018	Vandenberg Air Force Base, United States of America	96.4	97.7	593	575	Technology demonstration. Nanosatellite that complies with the 2U standard and carries as payloads an ADS-B receiver for tracking aircraft and a bidirectional communication system for monitoring assets in remote areas, both payloads being designed for use exclusively in the civilian sector	-
2019-018AB	ROLEU.ESP.21	Aistechsat-3	Spain	1 April 2019	Satish Dhawan Space Centre, Sriharikota, India	94.6	97.5	509	487	Technology demonstration. Nanosatellite that complies with the 2U standard and carries as payloads an ADS-B receiver for tracking aircraft and a bidirectional communication system for monitoring assets in remote areas, both payloads being designed for use exclusively in the civilian sector. Capacity to operate in a constellation with Aistechsat-2	-
2018-111AJ	ROLEU.ESP.22	Lume-1	Spain	27 December 2018	Vostochny, Russian Federation	94.48	97.3	507	480	Educational. Bidirectional system for the transmission of data for the FIRE-RS programme and services for the radio amateur community	-
2019-084F	ROLEU.ESP.23	FossaSat 1	Spain	6 December 2019	Rocket Lab Launch Complex, New Zealand	92.01	97	400	346	Spread spectrum telecommunications for the Internet of Things and communications for the radio amateur community	-
2020-061W	ROLEU.ESP.24	3Cat-5/A	Spain	3 September 2020	Kourou, French Guiana	95.4	97.5	544.5	540.9	Earth observation; technology demonstration	-
2020-061X	ROLEU.ESP.25	3Cat-5/B	Spain	3 September 2020	Kourou, French Guiana	95.3	97.5	544.3	540.7	Earth observation; technology demonstration	-

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Committee on Space Research international designator	National designator/ registration number as used by State of registry				Territory or location of launch	Basic orbital parameters					D
		Name	State of registry			Nodal period (minutes)	Inclination (degrees)	Apogee (km)	Perigee (km)	General function of the space object	Date when space object is no longer functional
2016-051B	ROLEU.ESP.26	3Cat-2	Spain	15 August 2016	Jiuquan Satellite Launch Centre, China	94.3	97.4	500.3	484.4	Education, technology demonstration and Earth observation through GNSS signal reflectometry	-
2013-066E	ROLEU.ESP.27	OPTOS	Spain	21 November 2013	Yasny, Russian Federation	98	97.8	800	600	Scientific research; technology demonstration	-