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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 15 August 2019 from the Permanent Mission of  
the Russian Federation to the United Nations (Vienna) addressed  
to the Secretary-General**

The Permanent Mission of the Russian Federation 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), has the honour to transmit registration data on space launches by the Russian Federation in July 2019 and also on the space objects that ceased to exist during that period (see annex).



## Registration data on space launches by the Russian Federation in July 2019\*

1. In July 2019, the following space objects under the jurisdiction and control of the Russian Federation were launched:

Registration number of space object	Name of space object, launch vehicle and place of launch	Launch date	Basic orbital parameters				General function of space object
			Apogee (km)	Perigee (km)	Inclination (degrees)	Period (minutes)	
3514-2019-005	Meteor M2-2 <sup>a</sup>	5 July 2019	830.3	789.3	98.6	100.9	Earth remote sensing
3515-2019-005	AmurSat (AmGU-1) <sup>a</sup>	5 July 2019	536.0	512.6	97.5	94.9	Scientific and educational applications
3516-2019-005	Sokrat <sup>a</sup>	5 July 2019	539.7	514.5	97.5	95.0	Scientific and educational applications
3517-2019-005	VDNH-80 <sup>a</sup>	5 July 2019	533.0	513.6	97.5	94.9	Scientific and educational applications
3518-2019-006	Cosmos-2535 <sup>b</sup>	10 July 2019	638.0	618.0	97.5	97.0	Intended for assignments on behalf of the Ministry of Defence of the Russian Federation
3519-2019-006	Cosmos-2536 <sup>b</sup>	10 July 2019	642.0	622.0	97.5	97.0	Intended for assignments on behalf of the Ministry of Defence of the Russian Federation
3520-2019-006	Cosmos-2537 <sup>b</sup>	10 July 2019	638.1	617.0	97.5	97.0	Intended for assignments on behalf of the Ministry of Defence of the Russian Federation
3521-2019-006	Cosmos-2538 <sup>b</sup>	10 July 2019	638.8	618.8	97.5	97.0	Intended for assignments on behalf of the Ministry of Defence of the Russian Federation
3522-2019-007	Spektr-RG, launched by a Proton-M carrier rocket with a DM booster from the Baikonur launch site	13 July 2019	1 305 262.5	513.4	51.4	-	Scientific applications
3523-2019-008	Soyuz MS-13, launched by a Soyuz-FG carrier rocket from the Baikonur launch site	20 July 2019	228.5	198.8	51.6	88.5	Delivery to the International Space Station of the crew of Expeditions 60 and 61, consisting of Aleksandr Aleksandrovich Skvortsov (Russian Federation), commander of the crewed transport vehicle, and flight engineers Luca Salvo Parmitano (Italy) and Andrew Richard Morgan (United States of America)

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

Registration number of space object	Name of space object, launch vehicle and place of launch	Launch date	Basic orbital parameters				General function of space object
			Apogee (km)	Perigee (km)	Inclination (degrees)	Period (minutes)	
3524-2019-009	Meridian, launched by a Soyuz-2-1a carrier rocket with a Fregat booster from the Plesetsk launch site	30 July 2019	39 699.6	995.4	62.8	724.4	Intended for assignments on behalf of the Ministry of Defence of the Russian Federation
3525-2019-010	Progress MS-12, launched by a Soyuz-2-1a carrier rocket from the Baikonur launch site	31 July 2019	241.1	192.9	51.7	88.6	Delivery to the International Space Station of fuel, water, oxygen, air, food, scientific equipment and other consumable materials required for the crew, scientific experiments and operation of the Station

<sup>a</sup> Launched by a single Soyuz-2-1b carrier rocket with a Fregat booster from the Vostochny launch site.

<sup>b</sup> Launched by a single Soyuz-2-1v carrier rocket with a Volga booster from the Plesetsk launch site.

2. In July 2019, the Russian Federation launched the following space objects on behalf of foreign clients:

On 5 July 2019, the following objects, together with the Earth remote sensing satellite Meteor-M No. 2-2 of the Russian Federation, were launched by a Soyuz-2-1b carrier rocket with a Fregat booster from the Vostochny launch site: the Earth remote sensing satellites ICEYE X-4 and ICEYE X-5 (Finland); the DoT-1 satellite for technological applications (United Kingdom of Great Britain and Northern Ireland); the NSLSat-1 satellite for technological applications (Israel); the Momentus X1 satellite for technological applications (United States); the MOVE-IIb satellite for technological applications (Germany); the D-Star One (LightSat) satellite for technological applications (Germany); the SONATE satellite for technological applications (Germany); the EXOCONNECT satellite for technological applications (Germany); five BEESAT satellites for technological applications (Germany); the CarboNIX payload (Germany); the JAISAT-1 satellite for technological applications (Thailand); the MTCUBE satellite for technological applications (France); the Lucky-7 satellite for technological applications (Czechia); eight LEMUR satellites for the collection of data generated by a system for the automatic identification of marine vessels (United States); the SEAM-2.0 satellite for scientific applications (Sweden); the Ecuador-UTE satellite for scientific applications (Ecuador); and the TTU101 satellite for scientific applications (Estonia).<sup>1</sup>

<sup>1</sup> The AMICal Sat scientific satellite (France), which was scheduled to be launched, together with the Earth remote sensing satellite Meteor-M No. 2-2, by a Soyuz-2-1b carrier rocket with a Fregat booster from the Vostochny launch site, was not launched, as it was found to be not ready.

3. The following space objects ceased to exist in July 2019 and were no longer in Earth orbit as at 2400 hours Moscow time on 31 July 2019:

2019-019A (Progress MS-11): deorbited into the Pacific Ocean at a predetermined location on 29 July 2019; fragments of the space object that had not burned up were sunk;

1998-067NA (Tanyusha YuZGU No. 1): burned up on 30 July 2019.