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**Information furnished in conformity with the Convention  
on Registration of Objects Launched into Outer Space****Note verbale dated 21 January 2022 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 data on space launches by the Russian Federation in December 2021 and on previously launched space objects that ceased to exist during that period (see annex).<sup>1</sup>

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<sup>1</sup> The data on the space objects referenced in the annex were entered into the Register of Objects Launched into Outer Space on 27 January 2022.



## Registration data on space objects launched by the Russian Federation in December 2021\*

1. In December 2021, 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	Date of launch	Basic orbital parameters				General function of space object
			Apogee (km)	Perigee (km)	Inclination (degrees)	Period (minutes)	
3577-2021-014	Soyuz MS-20, launched by a Soyuz-2-1a carrier rocket from the Baikonur launch site	8 December 2021	243.6	200.2	51.7	88.7	Delivery to the International Space Station of a crew consisting of Aleksandr Aleksandrovich Misurkin (Russian Federation), commander of the crewed transport vehicle and of Visiting Expedition 20, and space flight participants Yusaku Maezawa (Japan) and Yozo Hirano (Japan)
3578-2021-015	Express-AMU3 <sup>a</sup>	13 December 2021	52 864.0	16 276.5	1.5	1 374.5	Telecommunications
3579-2021-015	Express-AMU7 <sup>a</sup>	13 December 2021	52 864.1	16 296.1	1.5	1 371.9	Telecommunications
3580-2021-016	Full-scale model launched by an Angara-A5 carrier rocket with a Perseus upper stage from the Plesetsk launch site	27 December 2021	202.8	191.1	63.2	88.4	Full-scale model

<sup>a</sup> Launched by a Proton-M carrier rocket with a Breeze-M upper stage from the Baikonur launch site.

2. In December 2021, the Russian Federation launched the following space objects on behalf of a foreign client:

On 27 December 2021, 36 OneWeb satellites (mission 37) (United Kingdom of Great Britain and Northern Ireland) were launched by a Soyuz-2-1b carrier rocket with a Fregat upper stage from the Baikonur launch site.

3. The following space objects ceased to exist in December 2021 and were no longer in Earth orbit as at 2400 hours Moscow time on 31 December 2021:

2021-119A (Soyuz MS-20): descent module landed at a predetermined location with members of an International Space Station expedition on 20 December 2021;

2017-037A (Cosmos-2519): burned up on 23 December 2021;

2021-111A (Progress M-UM): deorbited into the Pacific Ocean at a predetermined location on 23 December 2021; fragments of the space object that had not burned up were sunk.

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