



**Secretariat**

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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 14 November 2019 from the Permanent  
Mission of Germany to the United Nations (Vienna) addressed to  
the Secretary-General**

The Permanent Mission of Germany 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 information concerning space objects launched by Germany (see annex).



## Annex

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

#### CarboNIX

##### Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-038U
Name of space object	CarboNIX
National designator/registration number	D-R075
State of registry	Germany
Other launching States	Czechia, Ecuador, Estonia, Finland, France, Israel, Russian Federation, Sweden, Thailand, United Kingdom of Great Britain and Northern Ireland and United States of America
Date and territory or location of launch	5 July 2019 at 0541 hours 46 seconds UTC; Vostochny Cosmodrome, Russian Federation
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.5 degrees
Apogee	546 kilometres
Perigee	514 kilometres
General functions of space object	CarboNIX is a satellite ejection mechanism. It uses new technology to reduce the risk of damaging sensitive optical payloads and electronic components. In addition, CarboNIX uses a new spring pusher system that separates the satellite before any shocks are generated

##### Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	EXOLAUNCH GmbH
Website	<a href="http://www.exolaunch.com/Carbonix.html">www.exolaunch.com/Carbonix.html</a>
Launch vehicle	Soyuz 2.1b Fregat-M
Other information	The launched object is a cube-shaped microsatellite (40 cm <sup>3</sup> , 30 kg) with sensors to demonstrate and analyse the functionality of the new separation system

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

## EXOCONNECT

### Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-038
Name of space object	EXOCONNECT
National designator/registration number	D-R076
State of registry	Germany
Other launching States	Czechia, Ecuador, Estonia, Finland, France, Israel, Russian Federation, Sweden, Thailand, United Kingdom and United States
Date and territory or location of launch	5 July 2019 at 0541 hours 46 seconds UTC; Vostochny Cosmodrome, Russian Federation
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.49 degrees
Apogee	544 kilometres
Perigee	515 kilometres
General functions of space object	EXOCONNECT is a technology demonstration satellite to demonstrate novel deployable arrays, an Internet-of-things signal receiver and a second-generation Automatic Dependent Surveillance-Broadcast (ADS-B) receiver built by German Orbital Systems. The operator has stated that the satellite is to provide D-Star radio functionality, which will be made available to the amateur radio community once the flight testing of the technology demonstration systems is finished

### Additional voluntary information for use in the Register of Objects Launched into Outer Space

Space object owner or operator	German Orbital Systems GmbH
Website	<a href="http://www.orbitalsystems.de/">www.orbitalsystems.de/</a>
Launch vehicle	Soyuz 2.1b Fregat-M

## D-Star One LightSat

### Information provided in conformity with the Convention on Registration of Objects Launched into Outer Space

Committee on Space Research international designator	2019-038H
Name of space object	D-Star One LightSat
National designator/registration number	D-R077
State of registry	Germany

Other launching States	Czechia, Ecuador, Estonia, Finland, France, Israel, Russian Federation, Sweden, Thailand, United Kingdom and United States
Date and territory or location of launch	5 July 2019 at 0541 hours 46 seconds UTC; Vostochny Cosmodrome, Russian Federation
Basic orbital parameters	
Nodal period	95 minutes
Inclination	97.49 degrees
Apogee	544 kilometres
Perigee	515 kilometres
General functions of space object	D-Star One LightSat is a technology demonstration satellite. Its potential longer-term function is to be part of a provider system for the amateur radio community

**Additional voluntary information for use in the Register of Objects Launched into Outer Space**

Space object owner or operator	German Orbital Systems GmbH
Website	<a href="http://www.orbitalsystems.de/">www.orbitalsystems.de/</a>
Launch vehicle	Soyuz 2.1b Fregat-M
Other information	D-Star One LightSat is a technology demonstration satellite that is intended to demonstrate a second-generation ADS-B receiver and a D-Star-compatible transceiver (products of the operator). The operator has stated that the satellite is to provide D-Star radio functionality to the radio amateur community as soon as the technology demonstration is finished

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