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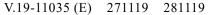
# Committee on the Peaceful Uses of Outer Space

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 www.exolaunch.com/Carbonix.html

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

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<sup>\*</sup> 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 www.orbitalsystems.de/

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

D-R077

number

State of registry Germany

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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 www.orbitalsystems.de/

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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