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

### **Note verbale dated 14 June 2024 from the Permanent Mission of Luxembourg to the United Nations (Vienna) addressed to the Secretary-General**

The Permanent Mission of Luxembourg 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 a list of space objects registered by Luxembourg (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 15 July 2024.



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

Submission date: 30 May 2024

Table 1  
New space object registrations

| Committee on Space Research international designator | Name of the space object | Date and time of the launch (CEST) | Location of the launch                     | State of registry | Basic orbital parameters |                       |             |              |                                       | Additional voluntary information             |                        |                |  |
|--|--------------------------|------------------------------------|--|-------------------|--------------------------|-----------------------|-------------|--------------|---------------------------------------|--|------------------------|----------------|--|
|  |                          |                                    |  |                   | Nodal period (minutes)   | Inclination (degrees) | Apogee (km) | Perigee (km) | Geostationary position (degrees East) | General function of the space object         | Owner or operator      | Launch vehicle | Date of entry of record into the National Registry |
| 2023-155J  | MACSAT                   | 9 October 2023 at 0336 hours       | Guiana Space Centre, Kourou, French Guiana | Luxembourg        | 95.91                    | 97.66                 | 565         | 561          | -                                     | Telecommunications, Internet of Things (IoT) | OQ Technology S.à.r.l. | VEGA           | 23 January 2024                                    |

Table 2  
Additional information on previously registered space objects

| Committee on Space Research international designator | Name of the space object | Additional information as recommended in General Assembly resolution 62/101                                      |   |                                | Additional voluntary information for use in the United Nations Register of Objects Launched into Outer Space |  |             |                   |                                       |                   |  |
|--|--------------------------|--|---|--------------------------------|--|--|-------------|-------------------|---------------------------------------|-------------------|--|
|  |                          | Date when no longer functional ("Date of Decommissioning" according to the Luxembourg Registry of Space Objects) | Physical conditions when moved to a disposal orbit <sup>a</sup> | Date of decay/re-entry/deorbit | Changes to basic orbital parameters  |  |             | Basic information |                                       |                   |  |
|  |                          |  |   |                                | Nodal period (minutes)   | Inclination (degrees)  | Apogee (km) | Perigee (km)      | Geostationary position (degrees East) | Other information | Date of entry of record into the National Registry |
| 1998-050A  | ASTRA 2A                 | -  | -   | -                              | 1 435.8-1 436.4  | Uncontrolled inclination since 10 August 2018<br>Orbital inclination is therefore increasing over time and was 1.8 degrees on 10 August 2020 | 35 820      | 35 752            | 57.2 (since 20 June 2022)             | -                 | 6 February 2024                                    |

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

| Committee on<br>Space Research<br>international<br>designator | Name of the<br>space object       | Additional information as recommended<br>in General Assembly resolution 62/101  |                          |   | Additional voluntary information for use in the United Nations Register of Objects Launched into Outer Space |                                     |                 |   |                      |  |                     |
|---|-----------------------------------|---|--------------------------|---|--|-------------------------------------|-----------------|---|----------------------|--|---------------------|
|   |                                   | Date when no<br>longer functional<br>("Date of<br>Decommissioning"<br>according to the<br>Luxembourg<br>Registry of Space<br>Objects) |                          | Physical conditions<br>when moved to a<br>disposal orbit <sup>a</sup> | Date of decay/<br>re-entry/<br>deorbit   | Changes to basic orbital parameters |                 |   |                      | Basic information  |                     |
|   |                                   | Nodal period<br>(minutes)   | Inclination<br>(degrees) |   |  | Apogee<br>(km)                      | Perigee<br>(km) | Geostationary<br>position<br>(degrees East) | Other<br>information | Date of entry of<br>record into the<br>National Registry   |                     |
| 2019-018G   | FM99 (LEMUR 2<br>Johanloran)      | 7 March<br>2023   | -                        | -   | 87.7   | 97.256                              | 178.7           | 156.8                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2019-018H   | FM100 (LEMUR<br>2 Beaudacious)    | 30 June<br>2023   | -                        | -   | 88.119   | 97.223                              | 198.1           | 178.9                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2019-018J   | FM101 (LEMUR<br>2 Elham)          | 3 May<br>2023   | -                        | -   | 87.923   | 97.247                              | 190.7           | 166.9                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2019-018K   | FM102 (LEMUR<br>2 Victor-Andrew)  | 8 March<br>2023   | -                        | -   | 88.462   | 97.25                               | 214.4           | 196.7                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2021-059AY  | FM143 (LEMUR-<br>2 John-Treires)  | 1 December<br>2023  | -                        | -   | 88.36  | 97.571                              | 205.7           | 195.3                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2021-059CJ  | FM150 (LEMUR-<br>2 CarlSantaMari) | 13 August<br>2023   | -                        | -   | 87.915   | 97.572                              | 188.4           | 168.4                                       | -                    | The satellite has<br>been<br>decommissioned  | 26 February<br>2024 |
| 2022-003F<br>(correct<br>designator<br>2022-003G)             | FM151 (LEMUR-<br>2 KRYW)          | 13 August<br>2023   | -                        | -   | 88.033   | 44.938                              | 186.4           | 182.2                                       | -                    | The correct<br>COSPAR<br>international<br>designator is<br>2022-003G The<br>satellite has been<br>decommissioned | 26 February<br>2024 |
| 2021-059BD  | KSF1-A                            | 19 February<br>2022   | -                        | 23 February<br>2024   | -  | -                                   | -               | -   | -                    | -  | 26 February<br>2024 |
| 2021-059AZ  | KSF1-B                            | 11 October<br>2021  | -                        | 14 February<br>2024   | -  | -                                   | -               | -   | -                    | -  | 26 February<br>2024 |
| 2021-059BR  | KSF1-C                            | 16 March<br>2022  | -                        | 21 February<br>2024   | -  | -                                   | -               | -   | -                    | -  | 26 February<br>2024 |
| 2021-059BZ  | KSF1-D                            | 21 February<br>2022   | -                        | 5 December<br>2023  | -  | -                                   | -               | -   | -                    | -  | 26 February<br>2024 |

| Committee on<br>Space Research<br>international<br>designator | Name of the<br>space object     | Additional information as recommended<br>in General Assembly resolution 62/101  |   |  | Additional voluntary information for use in the United Nations Register of Objects Launched into Outer Space |                          |                |                 |   |   |  |                     |
|---|---------------------------------|---|---|--|--|--------------------------|----------------|-----------------|---|---|--|---------------------|
|   |                                 | Date when no<br>longer functional<br>("Date of<br>Decommissioning"<br>according to the<br>Luxembourg<br>Registry of Space<br>Objects) | Physical conditions<br>when moved to a<br>disposal orbit <sup>a</sup> | Date of decay/<br>re-entry/<br>deorbit | Changes to basic orbital parameters  |                          |                |                 | Basic information                           |   |  |                     |
|   |                                 |   |   |  | Nodal period<br>(minutes)  | Inclination<br>(degrees) | Apogee<br>(km) | Perigee<br>(km) | Geostationary<br>position<br>(degrees East) | Other<br>information                        | Date of entry of<br>record into the<br>National Registry |                     |
| 2022-033AN  | KSF2-B                          | 20 May<br>2022  | -   | 14 February<br>2024                    | -  | -                        | -              | -               | -   | -   | -  | 26 February<br>2024 |
| 2022-033AK  | KSF2-D                          | 20 June<br>2023   | -   | 7 December<br>2023                     | -  | -                        | -              | -               | -   | -   | -  | 26 February<br>2024 |
| 2021-006AP  | FM136 (LEMUR-<br>2 Neva)        | 20 January<br>2024  | -   | -                                      | 87.792   | 97.349                   | 179.6          | 165             | -   | The satellite has<br>been<br>decommissioned |  | 24 May<br>2024      |
| 2022-002AQ  | FM141 (LEMUR-<br>2 King-Julien) | 17 January<br>2024  | -   | -                                      | 87.961   | 97.391                   | 186.8          | 174.6           | -   | The satellite has<br>been<br>decommissioned |  | 24 May<br>2024      |

<sup>a</sup> See the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (ST/SPACE/49).