United Nations A/AC.105/INF/447



Distr.: General 18 June 2021

Original: English

## Committee on the Peaceful Uses of Outer Space

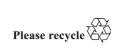
# Information furnished in conformity with General Assembly resolution 1721 B (XVI) by States launching objects into orbit or beyond

Note verbale dated 10 June 2021 from the Permanent Mission of Paraguay to the United Nations (Vienna) addressed to the Secretary-General

The Permanent Mission of Paraguay to the United Nations (Vienna) has the honour to transmit, in accordance with paragraph 1 of General Assembly resolution 1721 B (XVI) of 20 December 1961, the registration of the first Paraguayan satellite, GuaraniSat-1, launched to the International Space Station on 20 February 2021 and launched into orbit on 14 March 2021, within the framework of the Research Cooperation Agreement with the Kyushu Institute of Technology (Kyutech) and the Birds-4 project. GuaraniSat-1 is the result of the national "Paraguay to space" project, with the participation of various sectors: academia, the scientific sector and civil society (see annex). <sup>1</sup>

Paraguay considers the building of national capacities fundamental and, in this context, the cooperation and alliances with international institutions and programmes available to Paraguay as an emerging country for the development of national space capacity made possible this important milestone for our country. Thanks to an alliance between Kyutech and the Japanese Aerospace Exploration Agency for the launch of GuaraniSat-1, young professionals from Paraguay were involved in the construction of GuaraniSat-1.

<sup>&</sup>lt;sup>1</sup> The data on the space object referenced in the annex were entered into the Register of Objects Launched into Outer Space on 15 June 2021.





#### Annex

### Registration data on a space object launched by Paraguay\*

#### GuaraniSat-1

Committee on Space Research

international designator

1998-067SH

Name of the space object

GuaraniSat-1

State of registry

Paraguay

Date and territory or location of the

launch

14 March 2021 at 1120 hours 0 seconds UTC;

International Space Station (ISS)

Basic orbital parameters

Nodal period Inclination 91 minutes 56.1 degrees

Apogee

416 kilometres

Perigee

415 kilometres

General function of the space object

Capacity-building in space engineering for

Paraguayan professionals

Eight other mostly proof-of-concept technical

missions:

1. Short message transmission by CW beacon

2. Store-and-forward of remote sensor data from

ground terminals to ground station

3. Earth photography by a commercial off-the-

shelf camera module

4. Demonstration of active attitude

determination and control

5. Demonstration of perovskite solar cells

6. Demonstration of loop Hentenna design to

use the satellite structure as an antenna

7. Demonstration of on-board image processing

and classification

8. Demonstration of a latch-up detection circuit

Space object owner or operator

Paraguayan Space Agency (AEP), Paraguay

Website

https://birds4.birds-project.com

https://aep.gov.py/index.php/proyectos/guaranisat

Launch vehicle

Antares rocket

Other information

Launched by an Antares rocket on 20 February 2021 and carried by Cygnus NG-15 spacecraft to

**ISS** 

"Date of launch" is the date of deployment from ISS and "territory or location of launch" is the

location of deployment

**2/2** V.21-04530

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