



# General Assembly

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## 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.

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<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	91 minutes
Inclination	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	<a href="https://birds4.birds-project.com">https://birds4.birds-project.com</a> <a href="https://aep.gov.py/index.php/proyectos/guaranisat">https://aep.gov.py/index.php/proyectos/guaranisat</a>
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

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