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 28 August 2012 from the Permanent Mission of Italy to the United Nations (Vienna) addressed to the Secretary-General

The Permanent Mission of Italy to the United Nations (Vienna) presents its compliments to the Secretary-General of the United Nations and, 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 on Italian space objects LARES and ALMaSat-1 (see annex).
Annex

Registration data on space objects launched by Italy*

Laser Relativity Satellite (LARES)

International designator: 2012-006A
Name of space object: Laser Relativity Satellite (LARES)
Name of launching State: Italy
Satellite owner: Italian Space Agency
Date and location of launch: 13 February 2012 at 1000 hrs UTC
Guiana Space Centre,
Kourou, French Guiana
Launch vehicle: Vega

Basic orbital parameters:
- Nodal period: 114.75 minutes
- Inclination: 69.49 degrees
- Apogee: 1,450.00 kilometres
- Perigee: 1,450.00 kilometres
- Nominal geographical longitude (if applicable): Not applicable

General function: The Laser Relativity Satellite (LARES) is a national mission of the Italian Space Agency. The mission’s main scientific goal is to test Albert Einstein’s theory of general relativity by the highly accurate measurement of the relativistic Lense-Thirring effect using the International Laser Ranging Service (ILRS) network (see www.lares-mission.com)

LARES is a passive satellite in the shape of a sphere measuring 0.38 m in diameter and with a weight of 360 kg, made of solid tungsten. The satellite accommodates 96 mirrors, known as Corner Cube Reflectors, which are capable of reflecting ILRS laser beams

The LARES support system, which includes the LARES satellite separation subsystem, will remain attached to the Vega’s Attitude Vernier Upper Module

* The registration data are reproduced in the form in which they were received.
**ALMaSat-1**

- **International designator:** 2012-006B
- **Name of space object:** ALMaSat-1
- **Name of launching State:** Italy
- **Satellite owner:** Italian Space Agency and University of Bologna, Italy
- **Date and location of launch:** 13 February 2012 at 1000 hrs UTC
  Guiana Space Centre, Kourou, French Guiana
- **Launch vehicle:** Vega
- **Basic orbital parameters:**
  - Nodal period: 102.5 minutes
  - Inclination: 69.49 degrees
  - Apogee: 1,450 kilometres
  - Perigee: 310 kilometres
  - Nominal geographical longitude (if applicable): Not applicable
- **General function:** ALMaSat-1 is an educational microsatellite built by the University of Bologna.

  The dimensions of the satellite are 0.30 × 0.30 × 0.30 m and the weight is 12.5 kg.

  The goal of the mission is technological demonstration of a modular design capability to be used for various technological tests and Earth observation missions. The main objective of the first mission is to test the key performances of this low-cost multi-purpose bus and, in particular, of an innovative cold-gas propulsion module. The performance of the propulsion module will be demonstrated by lowering the altitude of ALMaSat-1 in order to control its re-entry.

  For further information, see www.almasat.unibo.it