



LEEM NATIONAL CANSAT COMPETITION AND ITS INTERNATIONAL UPGRADE

What is LEEM?

Spanish National Association to promote aerospace investigation.

It is created with the aim of:

- Encouraging Spanish students participation on international microgravity research campaigns.
- Facilitating the access to the different microgravity platforms to test student experiments.
- Putting in contact interested people to share personal experience and facilitate the launch of new projects through interuniversity cooperation.
- Promoting students relation with companies to give support to new ideas.

Education Programme

LEEM is concerned in motivating young students on science topics:

- Increase Interest on Science
- Explain basic physical concepts, commonly misunderstood
- Give a first approach to a real scientific project
- Make learning an enjoyable experience



CanSat Concept in Secondary Education

The CanSat is proposed to start kids in experimentation:

- Versatile
- Easy to implement
- Coordination with different subjects
- Needs to meet specific technical requirements
- Exciting competition and launching sessions



CanSat Workshops on High schools

The concept is explained to the teachers three months prior to the competition.

The different subjects are oriented to introduce children on a real scientific project

- Project definition. Elaboration of Hypothesis
- Scientific goals according to their knowledge level
- Experiment set up and testing
- Preparation of documentation
- Integration on the rocket provided by LEEM

Launch day!

A launch site is prepared on a open field near the high school

Children watch their experiments being launched onboard a real black powder rocket up to 200m



University Competiton

LEEM is organizing the first Spanish National CanSat competition, oriented to University Students, next October 2007

- Different Universities involved on the project
- Students develop their CanSat to compete on three different categories:
 - Navigation
 - Sounding Rocket Subsystem
 - General Science



University Competition Organization

LEEM is developing 10 solid propellant rockets to launch competing CanSats.

Rocket performances are sent to participants during design phase.

- Atmospheric measurement CanSat is launched to obtain day conditions
- 7 rockets are launched, one by one
- Students recover their experiment, the rockets are prepared for the next launch phase
- Judges consider flight performances, design and originality



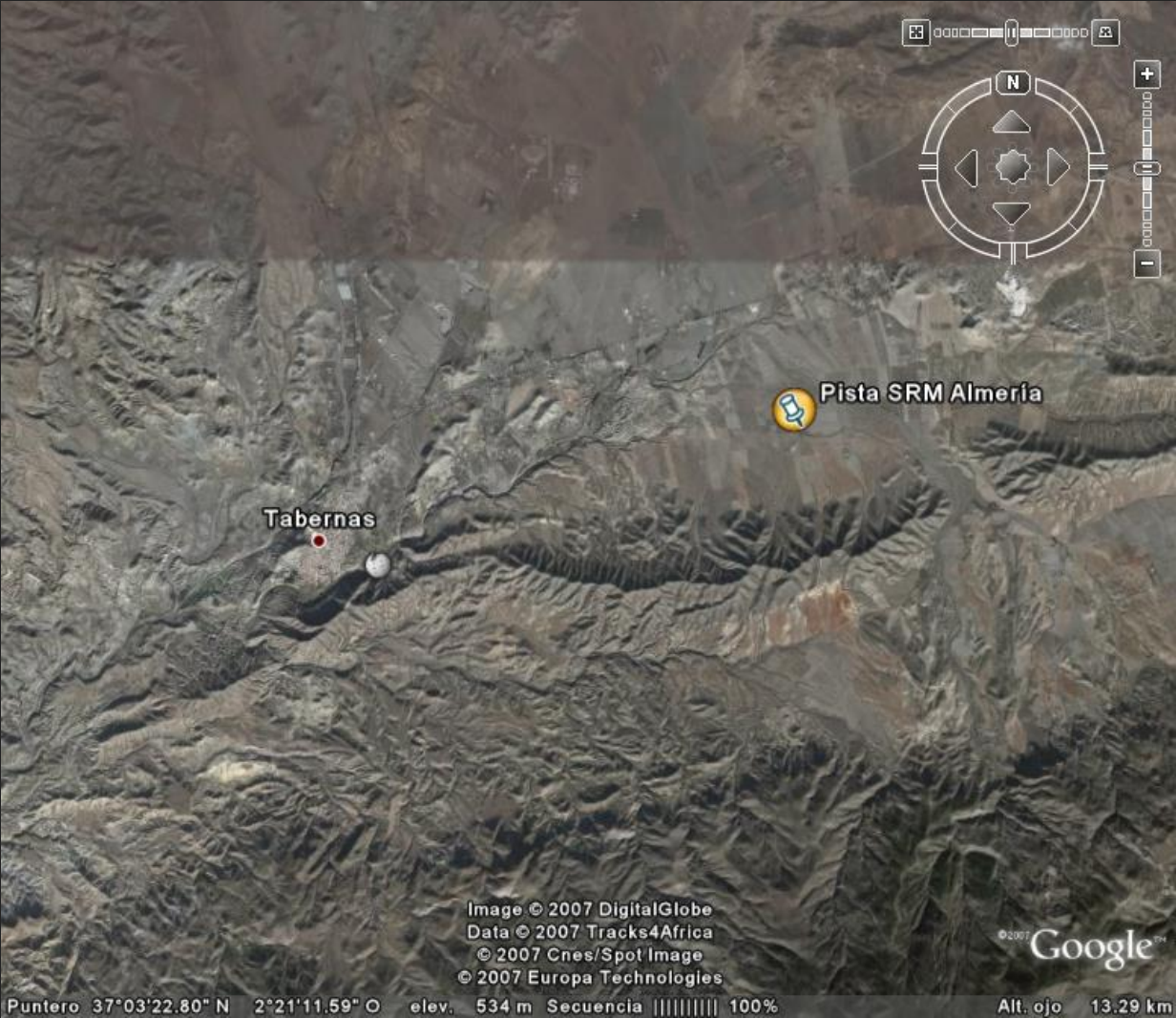
Sounding Rocket Category

Each year, a different subsystem for a Sounding Rocket is proposed.

- Different Universities give their approach to the problem
- The team that best fits the requirements is chosen to develop that subsystem on a real Sounding Rocket
- Through Inter-University cooperation, a high performance Sounding Rocket is developed
- This Rocket will be used to launch CanSats up to 6 km, on a competition opened internationally



International Competition



With the Collaboration of:



SpainRocketry



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Thank you very much for your attention!!

Any Question?

www.leem.es