

### TEACHING OF SCIENCE THROUGH THE SEEDBED OF ASTRONOMY

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This astronomy seedbed seeks for different methodologies for the development of lifelong learning; this seedbed works through three lines of field that are: rocketry (work different models to reach an advanced machinery), paper models of probes and space vehicles (looking for the representation of the mechanism and its operation), comets (the study of movement in our solar system). In light of the above this seedbed will achieve a breakthrough in science thanks to this learning based on field projects, with different methodologies of study. For this reason we took into account the design and modeling of structures for the explanation of astronomical trends.

Taking into account a school curriculum with research activities in astronomy, astrophysics and aerospace science-oriented from the basic knowledge of astronomy, such as the modeling of the motion of the planets, the model of an immediately propulsion rocket and the representation of the functioning of a black hole. The advances were: in rocketry on February 18 2012, in the municipality of “Villa de Leyva”, in honor of the 100th anniversary of the founder of the Dominicans of St Catherine of Siena, was launched a pilot of solid fuel rocket with a payload that reached a height of a thousand meters.

The modeling on paper in 2015, in the seedbed of astronomy were different models of rockets, spacecraft and satellites. In order to be able to explain in a simple and didactic way the advances in astronomy of these technological mechanism. Since 2015 the observation camp has taken place using telescopes Smith Cassegrain type. This equipment allow investigators to get photos using color filters, which demonstrate the process of this great event.

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### ACDA THIRTY YEARS OF POPULARIZATION OF ASTRONOMY IN COLOMBIA

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The Colombian Association of Astronomical Studies (ACDA) is a Non Profit Organization with thirty years of permanent efforts for the popularization of astronomy and related sciences in Colombia. ACDA put together amateur and professional astronomers, as well as interested people. We surely had left a footprint on uncountable number of attending people to our activities, members and former members, and have supported the process of building a new society, with more awareness on the importance of science. We devote our efforts to our members and general people, to keep them motivated, support them and follow each member own interests in order to expand and spread their knowledge. In order to achieve our goals we have develop several strategies as: acquire of didactic material and optical instruments, video projections and discussion, astronomical observations, visits to observatories and planetariums, attending conferences and events, and mainly a weekly Saturday morning talk at the Bogotá Planetarium.

ACDA has had different study teams on several fields including: Planetary Systems, Astrobiology, Space Exploration, Cosmology, History of Astronomy and Radioastronomy. ACDA has a national brandname on Astronomy due to seriousness and quality of its projects. A good list of members have become profesional astronomers. From our experience we can say: astronomy is a fertile field to teach science, in general there is an absence of astronomy culture in the public, our best communication experience are astronomical observations, explained astronomy movies and colloquiums, our best public are kids and aged people and finally, social networks gave dynamics to our astronomy spreading initiative.

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