Paper ID: 27645
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22nd IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
16th Workshop on Small Satellite Programmes at the Service of Developing Countries (1)

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AEROSPACE TECHNOLOGY IN PERU

Abstract

Aerospace technology for a country represents somehow its power, independence, and its development capacity. Peru has started the development of nano-satellites through initiatives of its universities. This work aims to highlight the Peru's incursion in aerospace field.

Different Peruvian universities have developed cubesats. The Pontificia Universidad Catolica del Peru (PUCP), in November 2013 launched the first Peruvian nano-satellite PUCP-SAT. On the other hand, the Universidad Alas Peruanas (UAP) has launched last January 2014 the nano-satellite UAPSAT. Also, in February 2014, the Universidad Nacional de Ingenieria (UNI) launched the Chaski I.

All these nano-satellite have cubic shape and measure 10 10 10 cm with a mass of 1 kilogram. These nano-satellites are developed primarily for scientific and educational technology demonstration objectives. Likewise, other Peruvian institutions intending to participate in a project that plans to launch a constellation of 50 nano-satellites to study the thermosphere (QB50 project).

Peru, through its space agency CONIDA (Comision Nacional de Investigacion y Desarrollo Aeroespacial), is making inroads in aerospace technology. On April 24, Peru signed an agreement to purchase a remote sensing satellite to the AIRBUS DEFENCE SPACE Company. This purchase is not only the satellite; it is a satellite system that includes the ground segment, space segment, access to French satellite constellation, and technology transfer program. Exactly, as part of the technology transfer program, Peru is in the process of selection of 30 Peruvian professionals to travel to France. Likewise, Peru is providing scholarships for graduate studies in aerospace technology and offering research stages for specialists in satellite imaging applications.

No doubt, it is a big step for Peru in its foray into the space age. It is acquiring technology with a satellite that will have a sub-metric spatial resolution. With this technology, Peru became the first Latin American country to have a satellite with capacity to detect objects smaller than one meter.

On the other hand, Peru, through individual initiatives, has also participated in simulated missions about Mars exploration. Peruvian students and professionals have participated in experiments in the Mars Desert Research Station of The Mars Society. These Peruvian students and professionals joined crews 126, 138, 140, and 141.