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Author: Dr. Adolfo Chaves Jiménez
Instituto Tecnológico de Costa Rica (TEC), Costa Rica

Prof. Eldon Cadwell
Universidad de Costa Rica, Costa Rica
Mrs. María del Rocío Cerdas Quesada
Costa Rica

Dr. Johan Carvajal-Godinez
Costa Rica Institute of Technology (ITCR), Costa Rica

THE COSTA RICA SPACE AGENCY: A NEW PARADIGM FOR A SELF-SUSTAINABLE PUBLIC
SPACE AGENCY

Abstract

Costa Rica, a country of a bit more of five million people, has enjoyed a development in the last decades that has transformed the country from a mainly agricultural economy to a complex economy where the main exportation products are medical devices and electronics. Since a decade ago, aerospace engineering has been proposed as a tool for development in the country. For this reason, a study was conducted in the country in 2012 showing that the aerospace market value in Costa Rica was of \$ 170 MM which approximately 17 % of it invested in RD, and more than 4000 jobs related within the field. In 2016, the Costa Rica Aerospace Cluster was created, and in 2018, the first Costa Rican Satellite, a CubeSat, was launched, showing the capabilities of the country to develop aerospace products.

Nevertheless, the country lacks a public organization to articulate all efforts on the best interest of the nation. On the other hand, being a developing country, it is difficult to justify the investment in organizations that are perceived at public level as unnecessary.

In this context, on February 18th 2021, the law project to create the Costa Rican Space Agency (AEC) was approved by Costa Rican Congress. AEC is designed focused on using space engineering as a tool of development, on being the first of its kind to be a “industry 4.0 agency”, and becoming self-sustainable taking advantage of the sectors where Costa Rica has a competitive advantage, such as biodiversity, geographical location and a highly trained workforce.

This sustainable effort is strongly linked to providing services such as creating antenna farms for other organizations to monitor their own satellites in exchange for other services, not only direct payments. Also, the creation of a Museum of Air and Space could provide a constant source of revenue that would allow the sustainability of the agency.

In this paper, the Costa Rican Space Agency is presented, focusing on how this organization is designed to be a catalizer for the use of space engineering to solve national problems, take advantage of international cooperation, and promote the specialization of the aerospace industry in the country while being a self-sustainable organization.