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MORAZÁN MRZ-SAT CUBESAT PROJECT FOR INTEGRATION OF THE CENTRAL AMERICAN
 NATIONS THROUGH COLLABORATION IN SPACE

Abstract

Morazán is a project for the integration of the Central American Nations through collaboration in Space. It consists in developing a CubeSat by Honduran professionals, with the collaboration of Costa Rican experts — developers of the first Central American Satellite —, and Guatemalan professionals. As a region with high exposure to natural disasters and with territories ranked among the highest risk in the world, the satellite's scientific mission will be the development of an early warning system for floods and landslides. This system will operate in remote zones with little to no access to communications; additionally, the use of the same system for post-emergency communications will be tested. Morazán was the last president of the late Central American Republic. A man ahead of his time, progressive, forward-thinking, and, most importantly, he was a true believer in the integration of the territories that constitute the Central American countries as the only way to promote progress in the region. This region faces multiple challenges in the areas of security, natural disasters and poverty, as it hosts the most violent cities in the world, the second poorest country in the western hemisphere, and its countries rank in the top 10 places most prone to natural disasters in the world according to UN University. In the 21st century, with the democratization of technology access, Morazán's ideals gain new relevance, as international cooperation is key to face the aforementioned challenges. The Central America Association for Aeronautics and Space (ACAE) has the goal of promoting Central American collaboration for access to space technology. Back in April 2018, ACAE successfully launched the first Central American satellite, named Batsu-CS1, as part of Project Irazú. Batsu, developed by Costa Rican professionals, was a proof-of-concept satellite devoted to developing the human capacities to perform a space mission from beginning

to end. The next logical step is to develop the next mission with two main objectives: first, to carry out a space mission based on more strict requirements and developed by a scientific team that has in mind the societal challenges of the region. Second, to promote collaboration among nations through knowledge transfer. In particular, from the Costa Rican developers of the region's first satellite and Guatemalan recipients of the second Kibo-Cube grant to Honduras; a non-space fairing nation with a myriad of opportunities to benefit from the access to space technology, and coincidentally the birthplace of president Morazán.