

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Small Launchers: Concepts and Operations (7)

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THE TOROGOZ SOUNDING ROCKET PROGRAM IN EL SALVADOR: A PROGRESS REPORT

Abstract

The Torogoz Sounding Rocket Program is a joint effort that involves students from the Universidad Don Bosco, industry professionals integrated as the El Salvador Aerospace Institute, Salvadorian government agencies and private individuals into developing a solid propellant sounding rocket capable of lofting a 15 kg scientific payload to 121 km. The program begun in 2011 and has slowly but continuously been accumulating tools, equipment, infrastructure, financial and human resources and knowledge into researching, designing, building and launching small rockets with the aim developing critical technologies for gaining access to space. The first part of this paper details the latest updates in the design of the 121 km rocket which aims to be reusable. The second part of the paper describes the infrastructure that has been established in order to meet the program objectives including the construction and testing of a subsonic wind tunnel, a supersonic wind tunnel, a composite materials laboratory, a propellant production facility and a concurrent design facility. The third part of this paper reports on the testing of small rockets that have reached 1.5 km and 4.5 km respectively.