

SMALL SATELLITE MISSIONS SYMPOSIUM (B4)
Space Systems and Architectures Featuring Cross-Platform Compatibility (7)

Author: Mr. Carlos Kasemodel
Instituto de Aeronáutica e Espaço (IAE), Brazil, kasemodel@iae.cta.br

Mr. Eduardo Dore Roda
Instituto de Aeronáutica e Espaço (IAE), Brazil, dore@iae.cta.br

VSB-30: THE FIRST SPACE CERTIFIED BRAZILIAN ROCKET FOR SCIENTIFIC AND
TECHNOLOGICAL EXPERIMENTS.

Abstract

At the end of last year an important step has been achieved concerning the development of high performance sounding rockets in Brazil: the sub-orbital rocket VSB-30 has been declared by the Brazilian aerospace certification bureau as the first certified Brazilian product. The development of the VSB-30 begun in 2001 attending a request of the German Aerospace Center (DLR) with the purpose to be used for the ESA microgravity program, replacing the Skylark 7 rocket. The VSB-30 is a two stage solid propellant rocket which is able to carry 400 kg payload up to 270 km altitude, enabling around 6 min of very good microgravity environment. The VSB-30 has been already launched successfully for nine times from Alcantara launch place in Brazil as also from Esrange in Kiruna, Sweden. The paper describes in detail the vehicle, the performance and onboard equipments and devices, the qualification process and shows results of the accomplished missions.