

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

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SOLID PROPELLANT SPACE LAUNCH VEHICLE DEVELOPMENT PROGRAM FOR PERU – A
PROPOSAL

Abstract

A family of solid propellant space launch vehicles (SLV) is proposed based on the indigenous technology development evolution. Each LV design model has been optimized, a multidisciplinary design optimization framework has been applied. The proposed SLVs are intended to deliver a small payload of 100 - 200 kg into a low earth orbit of 600 - 800 km altitude. A multi discipline feasible integrated framework has been implemented among the aerodynamic, propulsion, mass, and dynamic models were implemented. The proposed solid propellant SLV design models are optimized to conduct an specific mission and represent an initiative that allows peru to rapid access into space.