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IXV, A LONG WAY FROM THE “CONCEPT MISSION DESIGN” TO VEGA 4TH CONSECUTIVE
SUCCESS

Abstract

The launch of the re-entry demonstrator IXV by VEGA launcher was successfully performed on the 11/02/2015, about one year after the start of ELV activities on the design of the mission. IXV mission profile and requirements presented a series of particularities, being the first suborbital mission to be flown on VEGA. In particular, IXV stringent re-entry conditions and ground segment constraints have led to introduce higher flexibility at system and subsystem level to meet the Payload requirements. Among them can be mentioned the development of new strategies of flight, delta-qualification of the upper stage, flight program software modifications, and extension of optimizer capabilities. The paper will describe all the challenges linked to this demanding mission and how they have been met, based also on evidences from post-flight analyses.