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THE LOW-COST, LIGHT SATELLITE LAUNCH OPPORTUNITIES (L3) INITIATIVE

Abstract

Small satellites continue to increase their share of the new space market with countless valuable applications. However, access to space solutions are often not adequate to the small satellite's needs.

With this in mind the European Space Agency has identified the need for a comprehensive and novel approach for providing low-cost launch service solutions based on Ariane 6 and Vega/Vega C to efficiently combine heterogeneous payloads in the same mission and offer a standardised service to Customers: this is the purpose of the Low-cost, Light satellite Launch opportunities (L3) initiative aimed to serve also the wide variety of small satellites, from CubeSats to microsats and minisats, from tech-demos to megaconstellations.

The L3 Initiative's scope encompasses a set of activities required to define, develop and qualify the products, processes and organisations necessary to provide timely, low-cost, standardised launch service solutions, based on Ariane 6 and Vega/Vega C launches, which are suited to the needs of satellites below 500 kg of mass.

The Initiative includes "Proof-of-concepts" flights on Vega/Vega C and Ariane 6, the first of which is a rideshare mission planned for mid 2019 using Vega Launch System and the Vega/Vega C dedicated dispenser SSMS.

This paper updates on the L3 progress and reports on the results of the first Vega Small Sat dedicated launch of mid 2019.