

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

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KEY TECHNOLOGY DEVELOPMENTS FOR THE FIREFLY ALPHA SMALL LAUNCH VEHICLE –
TEST PROGRAMME RESULTS & OUTCOMES**Abstract**

Firefly Space Systems are developing a small launch vehicle aimed at meeting the needs of the growing small satellite market. Realising a low cost, all pressure fed small launch vehicle presents some key challenges, (technical and programmatic), and in 2015 and 2016 the Firefly team have been focussed on addressing and solving some of these key technical challenges. The paper will describe the key technology development and risk reduction activities undertaken to date, including engine development and testing and the development and testing of very high pressure cryogenic tanks. In addition, the paper will summarise the progress made towards the realisation of the mass production capabilities and characteristics of the Firefly Alpha vehicle and programme.