

The External Payload Carrier – A Suborbital Research Platform

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ABSTRACT

High altitude, suborbital research payloads are typically restricted to small packages (in terms of both volume and mass) due to the delivery platform employed. Sounding rockets that normally provide these services have payload capacities which severely limit the size and scope of the research to be performed. A new research platform is currently in the early development phase for large (both volume and mass) payload microgravity suborbital payloads seeking access to these regimes. The EXternal Payload Carrier (XPC) utilizes an open solid rocket motor position on the Atlas V vehicle and aerodynamically mimics the outer contour of a solid rocket motor. This presentation will detail the current state of the design and capability of XPC for potential future users.