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### **Aurora Flight Sciences Wins NASA Contract for Incorporation of Aspirated Compressor Technology into High Altitude Engines**

**Cambridge, MA**, June 21, 2010 – NASA has awarded Aurora Flight Sciences a contract to incorporate aspirated compressor technology into high altitude gas turbine engines. Aspiration is a technique to increase the performance of a turbine engine by sucking air into slots in the compressor blades. This increases the sustainable rate of pressure rise in the compressor, reducing the required number of compression stages in the engine. The technology allows for the design of lighter, more efficient engines to provide aircraft with greater range, endurance, and fuel economy.

Aurora will investigate the interdependencies between aspirated flow requirements, weight reduction, and overall engine cycle efficiency as part of an optimization effort to maximize the capability of an engine for a High Altitude, Long Endurance (HALE) aircraft. “Previous work on compressor aspiration focused on proving the fundamental aerodynamics of the technique,” said Nathan Fitzgerald, a Propulsion Development Engineer at Aurora and the principal investigator for the project. “This project will allow us to better understand the best way to integrate the technology into an engine system.” The effort will define the benefits of compressor aspiration in a low Reynolds number environment and provide rationale for using the HALE mission as a launch application for this promising technology.

#### **About Aurora Flight Sciences**

Aurora Flight Sciences designs and builds robotic aircraft and other advanced aerospace vehicles for scientific and military applications. Aurora is headquartered in Manassas, VA and operates production plants in Bridgeport, WV and Columbus, MS and a Research and Development Center in Cambridge, MA. To view recent press releases and more about Aurora please visit our web site at [www.aurora.aero](http://www.aurora.aero).

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