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## Aeros completes the DARPA BAAV Demonstration Program.

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Photo: Aerostructure Buoyancy Test (Copyright Aeros Aeronautical Systems Corp).



Aeros announced today the completion of the Buoyancy Demonstration Test of a Rigid Aerostructure Technology that concluded performance under the Defense Advanced Research Projects Agency (DARPA) Buoyancy Assisted Lift Air Vehicle (BAAV) program for the United States Department of Defense.

The focus of the BAAV program was to demonstrate a semi-monocoque structure of rigid design (Aerostructure) for a buoyancy assisted lift air vehicle. During successful Structure Integrity testing, Aeros conducted scaled demonstrations that indicate that in a full scale vehicle, a rigid aerostructure can be both light and strong enough to accommodate high-speed dynamic air loads without failure. The Buoyancy Demonstration test validated this structural approach as the air platform basis for a new class of buoyancy assisted vehicles that is more robust and has potentially greater military utility. New missions that require extended speed, range, and loiter times would be enabled.

The Aerostructure, essentially the body of the air vehicle, is one of the main technology elements of the new type of variable buoyancy air vehicle. Aeros plans to implement the Aerostructure and other technologies demonstrated under the DARPA program on a full scale version of the BAAV vehicle known as an Aeroscraft. The key features of the Aeroscraft include the noted rigid structure, a dynamic buoyancy management system, vertical takeoff and landing capabilities, and the ability to operate at low speed, in hover, and from unprepared surfaces.

The variable buoyancy air vehicle is designed to offer new capabilities to the warfighter by deploying composite payloads of personnel and equipment “from fort to fight”. The vehicle’s design would allow for the support of a multitude of missions including search and rescue, emergency relief, hurricane evacuation, airborne medical aid and many others. It would also offer significant benefits to companies that operate in remote and ecologically sensitive areas such as oil and gas and wind energy industries, by allowing constant access to operating sites with minimum environmental impact.



*About the Aeroscraft: The Aeroscraft is a new type of rigid air vehicle – the variable buoyancy air vehicle designed to control lift in all stages of air or ground operations including the ability to off-load payload without re-ballasting. The key features of the Aeroscraft include the rigid structure, vertical takeoff and landing capabilities, and the ability to operate at low speed, in hover, and from unprepared surfaces.*

*About Aeros: Aeros is the world's leading lighter-than-air, FAA-certified aircraft manufacturing company. The company's operations involve the research, development, production, operation and marketing of a complete family of Aeros-branded air vehicles used in government and commercial applications. These include non-rigid FAA Type Certified Aeros 40D Sky Dragon Airships, Advanced Tethered Aerostatic Systems and New Type Rigid Air Vehicle - Aeroscraft. For more information please visit [www.aerosml.com](http://www.aerosml.com)*

*Aeroscraft and Aeros are registered trade marks.*

