



LightningStrike VTOL X-Plane subscale vehicle demonstrator takes to the sky

Aurora Successfully Flies Subscale X-Plane Aircraft

DARPA Vertical Take-Off/Landing X-plane Program Achieves Critical Milestone

Manassas, Virginia, April 18, 2016 – Aurora Flight Sciences announced today that a subscale vehicle demonstrator (SVD) of its *LightningStrike*, Vertical Take-off and Landing Experimental Plane (VTOL x-plane) for the Defense Advanced Research Projects Agency (DARPA) was successfully flown at a U.S. military facility. The flight of the subscale aircraft met an important DARPA risk reduction requirement, focusing on validation of the aerodynamic design and flight control system.

“The successful subscale aircraft flight was an important and exciting step for Aurora and our customer,” said Tom Clancy, Aurora’s chief technology officer. “Our design’s distributed electric propulsion system involves breaking new ground with a flight control system requiring a complex set of control effectors. This first flight is an important, initial confirmation that both the flight controls and aerodynamic design are aligning with our design predictions.”

The subscale aircraft weighs 325 pounds and is a 20% scale flight model of the full scale demonstrator Aurora will build for DARPA in the next 24 months. The wing and canard of the subscale vehicle utilize a hybrid structure of carbon fiber and 3D printed FDM plastics to achieve highly complex structural and aerodynamic surfaces with minimal weight. The unmanned aircraft take-off, hover and landing was controlled by Aurora personnel located in a nearby ground control station with oversight and coordination by U.S. government officials including DARPA personnel.

On March 3, 2016, DARPA announced the award of the Phase II contract for the VTOL X-Plane contract to Aurora, following a multi-year, Phase I design competition. The program seeks to develop a vertical take-off and landing demonstrator aircraft that will achieve a top sustained flight speed of 300 kt – 400 kt, with 60-75% increase in hover efficiency over existing VTOL aircraft. Aurora’s design is for the first aircraft in aviation history to demonstrate distributed hybrid-electric propulsion using an innovative synchronous electric-drive system. Having successfully completed the subscale demonstrator flight, Aurora’s *LightningStrike* team will focus over the next year on further validation of flight control system and configuration of the full scale VTOL X-Plane demonstrator.

Assets for Media:

- [To download video of the flight, click here](#)
 - [To download photos of the flight, click here](#)
 - [To watch video on YouTube, click here](#)

 - [Link to DARPA information on the VTOL x-plane program](#)
 - [Link to Aurora press release for VTOL x-plane contract announcement](#)
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Media Contact:

Chip Sheller
Vice President, Communications
(703) 964-6271 / Sheller.Chip@aurora.aero

About Aurora Flight Sciences

Aurora Flight Sciences is a leader in the development and manufacturing of advanced aerospace vehicles. Aurora is headquartered in Manassas, VA and operates production plants in Bridgeport, WV and Columbus, MS; and Research and Development Centers in Cambridge, MA and Mountain View, CA. To view recent press releases and more about Aurora please visit our website at www.aurora.aero.

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Aurora Flight Sciences Corporation			www.aurora.aero
9950 Wakeman Drive Manassas, VA 20110-2702 703-369-3633 • Fax 703-369-4514	3000 East Benedum Industrial Drive Bridgeport, WV 26330-9683 304-842-8100 • Fax 304-842-8116	90 Broadway, Suite 11 Cambridge, MA 02142-1110 617-500-4800 • Fax 617-500-4810	200 Aurora Way Columbus, MS 39701-9670 662-328-8227 • Fax 662-328-8971