Sikorsky Successfully Completes DARPA ALIAS Phase 1 Competition With Autonomous Flight

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STRATFORD, Conn., May 31, 2016 /PRNewswire/ -- Sikorsky, a Lockheed Martin (NYSE: LMT) Company, has successfully demonstrated a 30-mile autonomous flight using a Sikorsky S-76® commercial helicopter to complete Phase 1 of an $8 million award from the Defense Advanced Research Projects Agency (DARPA)'s Aircrew Labor In-Cockpit Automation System (ALIAS) program.

Sikorsky's ALIAS system directed the rotorcraft flight demonstration from Sikorsky'sStratford, Connecticut, facility to Robertson Airport in Plainville, Connecticut, utilizing autonomous technology capabilities.

This flight highlighted the ability for an operator to plan and execute every phase of an autonomous mission with a tablet device. During the demonstration, a ground station crew located at the flight initiation field monitored the progress of the ALIAS-enabled Sikorsky Autonomy Research Aircraft (SARA), an S-76® commercial helicopter. A video of the demonstration is available online at:https://www.youtube.com/watch?v=sLZEpy6Gf-k.

The objective of DARPA's ALIAS program is to develop and insert new levels of automation into existing military and commercial aircraft to enable those aircraft to operate with reduced onboard crew. ALIAS seeks to leverage advances in autonomy that reduce pilot workload, augment mission performance, and improve aircraft safety and reliability.

Sikorsky utilized its Matrix Technology™ introduced in 2013 to develop, test and field hardware and software systems that significantly improve optionally piloted and piloted vertical take-off and landing (VTOL) aircraft. Sikorsky has installed MATRIX on both SARA and a BLACK HAWK helicopter.

"With the advances we've made, the capability for safe, unobtrusive optionally piloted flight is here," saidMark Miller, Vice President of Engineering & Technology at Sikorsky. "ALIAS is expanding the role of optionally piloted helicopters for early entry into established aircraft programs. It has the capability of not only reducing aircrew size, but also changing the type and length of training required for safe operation."

With work on ALIAS Phase 1 complete, Sikorsky has begun Phase 2 of the program. DARPA awarded Sikorsky a $9.8 million modification for the competition's second phase, which focuses on continued maturation of the initial ALIAS system with additional flight tests, enhancements to the human interface and transition to additional aircraft to demonstrate ALIAS portability.

"The current environment limits the creation of new, optionally piloted platforms. What Sikorsky and DARPA are demonstrating is the successful and affordable integration of advanced technology onto existing legacy aircraft to not only set the stage for autonomous operations down the road, but also to immediately improve aircraft performance, reduce maintenance costs, and increase crew and passenger safety," said Chris Van Buiten, Vice President of Sikorsky Innovations, the technology research group for the Engineering & Technology organization.

"We are delighted to be working with DARPA on this transformational program,"Van Buiten added.

About Lockheed Martin: Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 125,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services.

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