Sikorsky Aircraft Completes Active Rotor Wind Tunnel Testing

Stratford, Connecticut -

Sikorsky Innovations, the technology development organization of Sikorsky Aircraft, has completed wind tunnel testing of its active rotor system equipped with high authority flaps. The effort is jointly funded by Sikorsky and the U.S. Army Aviation Applied Technology Directorate (AATD). Sikorsky Aircraft is a subsidiary of United Technologies Corp. (**NYSE: UTX**).

“The AATD/Sikorsky Active Rotor Team has accomplished a lofty goal: to demonstrate the functionality of a trailing edge flap and closed loop control system,” said Chris VanBuiten, Director of Sikorsky Innovations. “The system performed extremely well over a variety of forward flight conditions up to 140 knots.”

“We have validated the concept of properly controlled, high authority flaps to favorably impact external rotor noise, and vibration,” added Jim Kagdis, program manager for Sikorsky Advanced Programs. “Our test results show reductions in vibration, rotor hub and controls loading, and a reduced acoustic emission.”

Mark Miller, Sikorsky vice president, research & engineering, added: “The completion of this wind tunnel testing provides valuable data to guide future programs such as AATD’s Reconfigurable Rotor and DARPA’s Mission Adaptable Rotor (MAR) programs. Sikorsky remains committed to the maturation of game-changing technologies such as active control features on helicopter blades to maximize aircraft performance and effectiveness.”

Development partners on the project are United Technologies Research Center (UTRC) for the blades, and Hamilton Sundstrand Claverham for the high authority flap actuators. Wind Tunnel Testing was accomplished at the National Full-Scale Aerodynamics Complex (NFAC) located at Ames Research Center at Moffett Field in California.

Sikorsky Aircraft Corp., based in Stratford, Conn., is a world leader in helicopter design, manufacture and service. United Technologies Corp., based in Hartford, Conn., provides a broad range of high technology products and support services to the aerospace and building systems industries.

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