Sikorsky To Demonstrate Flight Autonomy To U.S. Marine Corps

Demonstrations will inform role of autonomy for Aerial Logistics Connector program



Sikorsky's Optionally Piloted Black Hawk will help the U.S. Marine Corps test flight autonomy for resupply in contested battlespace. Photo: Uncrewed aircraft with external load at U.S. Army Yuma Proving Ground in 2022. Sikorsky, a Lockheed Martin company.

STRATFORD, CT, Dec. 11, 2024 – Sikorsky, a Lockheed Martin company (NYSE:LMT) has been selected by the U.S. Marine Corps to demonstrate the maturity and capability of the MATRIXTM flight autonomy system.

Operationally relevant demonstration flights during 2025 using Sikorsky's Optionally Piloted UH-60 Black Haw® helicopter will inform the service's Aerial Logistics Connector program how autonomous aircraft can resupply and sustain Marines in contested battlespace.

"Aircraft with MATRIX autonomy can safely and reliably perform a variety of complex missions, including internal and external cargo transport with no one on board," said Rich Benton, vice president and general manager of Sikorsky. "With the Marine Corps, we will explore how an autonomy-based fleet of uncrewed aerial systems, rotary and fixed wing aircraft can sustain the expeditionary force with precision resupply during distributed, high-tempo operations."

The Marine Corps demonstrations will show how autonomous aircraft can keep future Marine forces supplied, whether operating from Navy ships or expeditionary bases ashore. Marines also will interface with Sikorsky's autonomous aircraft via a tablet to make mission changes before or after take-off.

Demonstrations of the MATRIX flight system are funded under a recent Phase 1 Aerial Logistics Connector agreement through an Other Transaction Agreement under the Naval Aviation Systems Consortium to Sikorsky by the Naval Air Systems Command.

Platform agnostic autonomy system

Sikorsky Innovations, the rapid development and prototyping group, has demonstrated mission relevant capabilities of the MATRIX system in both military and commercial operational environments aboard multiple rotary and fixed wing aircraft.

Initially intended to improve safety of flight for crewed helicopters, the system matured with funding from the Defense Advanced Research Projects Agency (DARPA) ALIAS program. Advanced features include assisted flight handling for two pilot operations, virtual co-pilot for a single pilot, or fully autonomous flight with no pilots.

Recent MATRIX autonomy demonstrations

In July at Stafford Airport, Virginia, and again in October 2024 at the Association of the United States Army (AUSA) exposition in Washington D.C., Sikorsky and DARPA demonstrated autonomous flights of the Optionally Piloted Black Hawk helicopter to Department of Defense (DoD) officials.

At the October demonstration, DoD leaders on the AUSA tradeshow floor learned to send high level mission goals to the helicopter<u>Three hundred miles away</u> at Sikorsky headquarters in Connecticut, the aircraft autonomously took off, hovered, flew a short circuit of the flight field, and landed successfully.

These recent demonstrations build on autonomous logistics flights at Project Convergence 2022, wher <u>Sikorsky and DARPA successfully demonstrated</u> to the U.S. Army how the Optionally Piloted Black Hawk helicopter, operating without humans on board, can safely and reliably perform internal and external cargo resupply missions.

For more information including details on other recent advancements, visit: https://www.lockheedmartin.com/matrix.

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