Sikorsky Begins Black Hawk® Ground Runs With U.S. Army T901 Improved Turbine Engines

Fundamental to Black Hawk modernization, the new GE Aerospace engine will boost aircraft performance and range



Sikorsky started ground runs on a UH-60M Black Hawk equipped with two Improved Turbine Engines. This engine increases the Black Hawk's combat capabilities. Photo courtesy Sikorsky, a Lockheed Martin company. ©Lockheed Martin Corporation.

WEST PALM BEACH, Fla., Jan. 29, 2025– Sikorsky, a Lockheed Martin company (NYSE: LMT), started its first-ever ground runs on a UH-60M Black Hawk® helicopter equipped with two GE Aerospace T901 Improved Turbine Engines (ITE). During this test, the T901 engine demonstrated its capabilities through a series of rigorous procedures. The initial light off and ground runs were executed by a combined U.S. Army and industry test team and operated by Army and Sikorsky pilots.

“Soldiers will rely on Black Hawk helicopters well into the future, and upgrades to the aircraft today will pay dividends for decades, enabling new missions such as deploying and managing launched effects,” said Hamid Salim, vice president of Army and Air Force Systems at Sikorsky. “A modernized Black Hawk fleet will create new operational opportunities for the Army by extending the capabilities of a proven, fielded fleet to travel farther on less fuel and with more troops and cargo.”

First flight of the ITE-equipped Black Hawk is anticipated this year.

View the video of light off and ground runs.

Progressing to First Flight

The ground runs on the T901 ITE engines verified system functionality, engine health and test setup for an efficient testing process.

The test demonstrated the T901’s start-to-fly progression, including idle and fly modes, with the rotor brake disengaged, marking a significant step toward the program's goal of delivering a more powerful and efficient engine for the next-generation Black Hawk.

The start-to-fly progression tests the functionality of the entire system, from the engine start sequence to the engagement of the main rotor to enable lift-off. The test team verifies that all critical systems, including fuel, electrical, hydraulic, and flight control systems, are functioning as expected.

The successful ground test set the stage for more advanced testing, such as hover and forward flight tests.

A Modernized Black Hawk

The T901 engine will increase the Black Hawk’s power by 50%, while also improving fuel efficiency and is a critical component of the roadmap to a modernized Black Hawk – a key part of Lockheed Martin’s 21st Century Security® vision.

Sikorsky H-60M modernization efforts continue to be primarily focused on ITE, as well as Modular Open Systems Approach/digital backbone and Launched Effects. Digital innovations, such as a new sustainment digital twin, improve safety and mission readiness while reducing costly downtime and unscheduled maintenance. Since 2022, Sikorsky has demonstrated the ability to reduce pilot workload and increase safety by incorporating proven autonomy capability into Black Hawk.

For additional information, visit our website: www.lockheedmartin.com/blackhawk.

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