

Safran Federal Systems Demonstrates Blacknaut™ Inertial Navigation System on U.S. Army Black Hawk Following AUSA Debut

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Safran Federal Systems, a trusted U.S. Department of Defense mission partner and leader in Assured Positioning, Navigation and Timing (A-PNT), announced the successful flight demonstration of its Blacknaut™ Inertial Navigation System (INS) aboard a U.S. Army UH-60 Black Hawk helicopter.

Purpose-built for multi-domain operations, Blacknaut™ delivers precise navigation in **GPS-denied and electronic warfare-contested environments**, fulfilling a critical need for resilient, open-architecture PNT capabilities across air, land, sea, space, and cyber domains.

The live flight test confirmed Blacknaut's ability to maintain high-accuracy inertial performance without GNSS support, validating operational readiness just days after its U.S. debut at the 2025 Association of the United States Army (AUSA) Annual Meeting & Exposition in Washington, D.C.



“Our demonstration onboard the Army Black Hawk showcases the tactical readiness of Blacknaut™,” said **Jon Leombrone, Executive Vice President of Navigation Systems at Safran Federal Systems**. “The system maintained drift of less than 0.4 nautical miles per hour over several hours—proof of its SWaP-optimized, NAVWAR-resilient design engineered for rapid deployment across the Joint Force.”

Blacknaute™ combines multiple cutting-edge technologies in a rugged, lightweight system weighing less than 16 pounds. Key features include:

- **HRG Dual Core™ Technology:** Safran's patented hemispherical resonator gyro platform, fielded in more than 40,000 units and proven over 30 million operational hours across defense and aerospace applications.
- **M-Code Ready GNSS Receiver:** Supports secure, multi-constellation satellite navigation using military-grade M-Code signals.
- **Ultra-Stable Atomic Clock:** Provides highly precise timing with drift of less than one second every 30,000 years, ensuring reliable synchronization across mission systems.
- **Interference Detection and Mitigation (IDM):** Built-in capabilities for detecting and mitigating GPS spoofing and jamming threats, enhancing survivability in electronic warfare environments.
- **Open Systems Architecture:** Fully compliant with MIL-STD interfaces and TSO-C220 standards, enabling plug-and-play integration with modular open systems used across modern defense platforms.

Safran Federal Systems provides advanced, classified navigation and PNT solutions to Safran Defense & Space, Inc. (Safran DSI), accelerating innovation across multi-domain operations in support of U.S. defense programs.

For more information, visit us at safranfederalsystems.com/blacknaute.

Safran Federal Systems is a trusted DoD mission partner and industry leader in Assured Positioning, Navigation and Timing (A-PNT), providing cross-cutting and cost-effective solutions bred through innovation. Our expertise in simulation, NAVWAR, and open systems architecture enables rapid delivery of emerging technologies to the warfighter across all domains, from the lab to the field.

For more information:

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