Northrop Grumman Advances Airborne Navigation Capabilities for the US Navy



Northrop Grumman is implementing the U.S. Navy's first M-code airborne navigation solution, the M-code capable LN-251 Inertial Navigation System/Global Positioning System (INS/GPS). (Photo Credit: Northrop Grumman)

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WOODLAND HILLS, Calif. – Feb. 4, 2025 – Northrop Grumman Corporation (NYSE: NOC) is advancing the U.S. Navy's airborne navigation capabilities with implementation of the LN-251M, the next-generation upgrade of the LN-251 Inertial Navigation System/Global Positioning System (INS/GPS). The LN-251M features M-code – an encrypted, military-specific signal with stronger jam resistance to shield against adversarial

threats.

- This is the first M-code navigation system for naval aircraft.

- M-code technology provides enhanced robustness to counter GPS signal degradation, enabling pilots greater ability to effectively operate in air spaces where GPS has been shut down or spoofed.

- LN-251s equipped with Selective Availability Anti-Spoofing Modules GPS may easily upgrade to M-code configuration.

Expert:

Ryan Arrington, vice president, navigation and cockpit systems, Northrop Grumman: “The LN-251M is Northrop Grumman’s newest innovation in elevating airborne navigation to the next level. This important enhancement is a critical milestone for delivering advanced positioning, navigation and timing capabilities because it enables pilots to safely operate with a jam-resilient navigation system for naval aircraft.”

Program Details:

LN-251s are designed to seamlessly integrate with current aircraft navigation systems and perform cohesively with future software and GPS modernization upgrades. Northrop Grumman began producing the LN-251 INS/GPS in 2003.To date, the company has delivered nearly 5,000 LN-251s and similar LN-270 INS/GPS units.