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Northrop Grumman Demonstrates 5th-to-4th Generation Gateway Radio Using Open Mission Systems Architecture

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SAN DIEGO, Nov. 4, 2015 (GLOBE NEWSWIRE) -- Northrop Grumman Corporation (NYSE:NOC) recently demonstrated its Freedom 550TM gateway radio terminal performing as a communications relay among fourth- and fifth-generation aircraft during an Open Mission Systems (OMS) flight trial led by Lockheed Martin.

The demonstration further validated the Air Force's OMS acquisition initiative – an approach based on open architecture design –quickly taking advantage of new or improved capabilities, regardless of supplier, at a reduced cost. It also verified that Northrop Grumman can integrate an OMS solution with another prime contractor's system.

During the flight test at Edwards Air Force Base, California, the Northrop Grumman Freedom 550 terminal was used as part of a gateway to link a fifthgeneration F-22 Raptor, which uses the stealthy Intra-Flight Data Link (IFDL), with a fourth-generation F-18 Hornet communicating via Link-16, the standard data link used by many military platforms. The Freedom 550 was on board a Lockheed Martin U-2 Dragon Lady, providing the IFDL connection to the F-22, and used OMS standards and applications to integrate with the rest of the OMS systems on the platform.

"The foundation of this successful achievement – particularly under a quick-reaction timeline – was Northrop Grumman's proven products in fifthto-fifth and fifth-to-fourth gateways and our work with the OMS collaboration working group," said Jeannie Hilger, vice president and general manager, communications division, Northrop Grumman Information Systems. "The OMS standard enabled significant reuse of capabilities previously developed with the working group."

Northrop Grumman's 5th-to-4th Gateway is based on the Freedom 550 developed as part of the Joint Capabilities Technology Demonstration (JCTD) program. The Gateway has flown more than 400 hours and has proven the ability to enable the fifth-generation F-22 and F-35 Lightning II and the fourth-generation F-18, F-15 Eagle and F-16 Fighting Falcon aircraft to communicate with each other without modifying the platforms.

The JCTD program was sponsored by the Office of the Secretary of Defense (OSD), U.S. Air Force Air Combat Command, Pacific Command and OSD's Defense Microelectronics Activity and culminated in 2014.

Northrop Grumman recently announced it had conducted multiple flight tests demonstrating the ability to rapidly integrate subsystems onto the B-2 Spirit stealth bomber and a surrogate ISR platform.

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