Northrop Grumman Demonstrates Fifth- to Fourth-Generation Aircraft Communications Capabilities During Flight Tests

May 27, 2014

SAN DIEGO, May 27, 2014 /PRNewswire/ -- Northrop Grumman Corporation (NYSE: NOC) has built and demonstrated a unique communications capability for the U.S. Department of Defense that enables fifth-generation aircraft to share information through existing data links with fourth-generation fighters to improve situational awareness and combat effectiveness.

The F-22 Raptor and the F-35 Lightning II are the world's only operational fifth-generation stealth aircraft; fourth-generation fighters include the F-15, F-16 and F-18. The F-35 has three variants that will serve the U.S. Air Force, U.S. Marine Corps, U.S. Navy, its partners and allies. Networking these aircraft will improve connectivity and communications, creating a force multiplier to dramatically increase the effectiveness of the total force.

Northrop Grumman demonstrated this "fifth-to-fourth" generation networking capability during a series of operational flight tests under the Joint Capability Technology Demonstration (JCTD) program, referred to as Jetpack 5^{th} to 4^{th} JCTD.

The flight tests, conducted in late March at Nellis Air Force Base, Nevada, and in early April at Edwards Air Force Base, California, conclude the final phase of the JCTD program. Northrop Grumman is the lead contractor on the Jetpack 5th to 4th JCTD program, which 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.

During the April flight tests, Jetpack validated the ability to simultaneously link and translate both the F-35's Multifunction Advanced Data Link and the F-22's Intra-Flight Data Link to common Link 16 messages. Link 16 is a secure, jam-resistant, high-speed digital data link and a NATO standard for ground-based, airborne and sea-based air defense platforms.

"The Jetpack JCTD has made an important contribution toward providing advanced situational awareness and combat effectiveness to our warfighters," said Jeannie Hilger, vice president, network communication systems, Northrop Grumman Information Systems. "This important capability – enabled by our Freedom 550 Joint Enterprise Terminal – leverages Northrop Grumman's F-35 avionics development to provide a production-ready, affordable solution for our joint forces."

"A total system solution – not just a waveform or just a radio – is required for fifth to fourth to become a reality," Hilger said. "Jetpack implemented a system to allow fourth-generation fighters to access the bounty of sensor information from the fifth-generation aircraft."

Honeywell Aerospace, Phoenix, provides Jetpack's dual-band advanced tactical data link antennas to Northrop Grumman as part of the system.

Jetpack is built for application in internally-mounted or pod-mounted installations, and received an interim authority to operate during the JCTD test period. Northrop Grumman has been demonstrating fifth-to-fourth capabilities since a series of joint operational exercises beginning in April 2010.

Northrop Grumman is a leading global security company providing innovative systems, products and solutions in unmanned systems, cyber, C4ISR, and logistics and modernization to government and commercial customers worldwide. Please visit www.northropgrumman.com for more information.

Logo - http://photos.prnewswire.com/prnh/20121024/LA98563LOGO

SOURCE Northrop Grumman Corporation

Janis Lamar, 703-556-1650, janis.lamar@ngc.com