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Northrop Grumman, US Army Prove Sensors and Shooters as Network Components With Missile Defense Flight Test Intercept

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Revolutionary Integrated Battle Command System Demonstrates Unprecedented Engagement on Combined Track Data From Dissimilar Radars

HUNTSVILLE, Ala., Nov. 16, 2015 (GLOBE NEWSWIRE) -- The U.S. Army and Northrop Grumman Corporation (NYSE:NOC) achieved a major milestone for integrated air and missile defense (IAMD) when the IAMD Battle Command System (IBCS), using tracking data from Sentinel and Patriot radars, provided the command-and-control (C2) for a Patriot Advanced Capability Three (PAC-3) interceptor to destroy a cruise missile target.

A video accompanying this release is available at: https://youtu.be/pEEBr3s4l8k

The flight test, conducted on Nov. 12, validated the ability to identify, track, engage and defeat targets using sensors and an interceptor from different air defense systems operating on the integrated fire control network and under the control of the IBCS.

"The technical challenge of integrating sensors and shooters that were never designed to work together – breaking them from existing systems into components for networking – is tremendous," said Dan Verwiel, vice president and general manager, integrated air and missile defense division, Northrop Grumman Information Systems. "With the successful intercept, the Army and Northrop Grumman team continues to show how IBCS is a paradigm-shifting system of systems for air and missile defense."

The flight test began when an MQM-107 drone target, serving as a cruise missile surrogate, flew a low altitude trajectory against an asset defended by an Army IAMD task force. The defense consisted of battery and battalion IBCS engagement operations centers, a Patriot radar and two Sentinel radars, and two PAC-3 launchers connected at the component level to the IBCS integrated fire control network. Because the low altitude trajectory of the target obscured it from the Patriot radar's field of view, the IBCS correctly used the Sentinel composite tracking data to calculate and present the necessary engagement solution. The engagement operations center operator then commanded, via the IBCS mission control software, the launch of a single PAC-3 interceptor missile to destroy the target.

"The IBCS gives warfighters the advantage of expanded sensor and weapon system combinations and enables a component-based acquisition approach," said Verwiel.

Foundational to IAMD transformation and key to the Army IAMD portfolio, the IBCS is managed by the IAMD Project Office, Program Executive Office for Missiles and Space, Redstone Arsenal, Alabama.

IBCS replaces seven legacy C2 systems to deliver a single integrated air picture and offer the flexibility for deployment of smaller force packages. By networking sensors and interceptors – as opposed to simply linking them – IBCS provides wider area surveillance and broader protection areas. With its truly open systems architecture, IBCS enables integration of current and future sensors and weapon systems and interoperability with joint C2 and the ballistic missile defense system.

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