



Northrop Grumman Demonstrates Open Mission Systems Architecture Across Manned and Unmanned Systems

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Test flights underscore company's Open Mission Systems expertise and commitment for advanced aircraft systems

PALMDALE, Calif., July 20, 2015 /PRNewswire/ -- Northrop Grumman Corporation (NYSE: NOC) demonstrated in recent test flights that the U.S. Air Force's Open Mission Systems (OMS) architecture standards can be successfully integrated across multiple systems and platforms. These flights have paved the way for new capabilities to be integrated rapidly and affordably across advanced manned and unmanned aircraft.

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In June, at Edwards Air Force Base, multiple test flights demonstrated the ability to rapidly integrate subsystems onto the B-2 Spirit stealth bomber and NASA's Global Hawk Unmanned Aircraft System (UAS) using OMS-compliant computing architecture. The most recent demonstration included the B-2 Spirit, the company's fully OMS-compliant Gulfstream G550 test bed aircraft configured as an intelligence, surveillance and reconnaissance (ISR) asset, and an OMS-compliant battle management command and control (BMC2) ground node.

"This demonstration paves the way for the B-2 weapon system to provide new operational capability well into the future at an affordable cost," said Brig. Gen. Eric Fick, Program Executive Officer for Fighters and Bombers, Air Force Life Cycle Management Center, Air Force Materiel Command.

In the latest test scenario, the G550 ISR aircraft detected a new ground threat and broadcast the threat's location across an OMS-compliant line-of-sight (LOS) Link-16 data link. The BMC2 node received the threat information via this link and assigned a nearby B-2 to engage the target. The B-2 then used its onboard OMS-compliant auto-routing function to replan its mission to prosecute and destroy the target in a simulated attack.

"The team's ability to rapidly demonstrate OMS has been nothing short of amazing and shows the speed at which capabilities can be developed when the Air Force and industry partner together," said Col. Rob Strasser, U.S. Air Force B-2 System Program Manager. "The collaboration and innovation required by the team to rapidly plan, integrate and demonstrate OMS on the B-2 has illustrated the ability to reduce cost while significantly increasing mission effectiveness."

Northrop Grumman demonstrated how OMS-compliant architectures are feasible on legacy platforms and can enable the rapid integration of new mission capabilities, such as an onboard mission planning auto-router.

"Northrop Grumman is committed to OMS and modular open architectures," said Tom Vice, corporate vice president and president, Northrop Grumman Aerospace Systems. "OMS provides us the ability to rapidly incorporate new innovative, affordable and adaptable capability into our products. Our recent OMS demonstrations on the Global Hawk UAS and the B-2 long-range strike bomber have proved to be very successful."

Developed through industry collaboration, OMS architectures use a common message interface for subsystems such as radar and communication systems, and services such as auto-routing and battle management. This standardized approach allows OMS-compliant mission systems and services to be reused across multiple aircraft. It also simplifies the development process for new mission capabilities, significantly shortens integration time with the platform and enables affordable insertion of new capabilities.

The entire OMS infrastructure for the B-2 was defined and integrated by Northrop Grumman in approximately six weeks. It took advantage of company capabilities and products at several locations across the country. Northrop Grumman funded the OMS development and integration, while the test activities were supported by both the company and the Air Force B-2 System Program Office.

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