

## Northrop Grumman Successfully Flies Open Mission Systems Architecture on Unmanned Aircraft

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EDWARDS AIR FORCE BASE, Calif., June 17, 2015 /PRNewswire/ -- Northrop Grumman Corporation (NYSE: NOC) successfully flew a new Open Mission Systems (OMS) architecture on a NASA Global Hawk, demonstrating the ability to rapidly and affordably adapt new capabilities onto unmanned aircraft systems (UAS). The new architecture implementation flight took place at NASA Armstrong Flight Research Center at Edwards Air Force Base.



This flight confirmed the ability for ground operators to send OMS payload commands and receive OMS subsystem status responses over a Ku SATCOM Beyond-Line-Of-Sight (BLOS) communications link between the unmanned aircraft and an operations center.

A previously developed OMS Critical Abstraction Layer (CAL) was adapted to an OMS Open Computing Environment (OCE) onboard the NASA Global Hawk using a production RQ-4 Global Hawk airborne database computer.

The demonstration illustrates Northrop Grumman's ability to rapidly deploy OMS on production Global Hawk platforms. The architecture paves the way for integration of new payload options for Global Hawk to support mission flexibility and customer needs. In addition to flying on the NASA Global Hawk UAS, the OMS architecture will be adapted and demonstrated in-flight on a manned airborne weapons system later this month.

NASA Global Hawks are preproduction variants of RQ-4 Global Hawks currently in service around the world. With the ability to fly as high as 60,000 feet for over 30 hours, Global Hawks provide a combination of high altitude and long endurance performance capabilities that allow the science community to study scientific and environmental phenomena in-depth. Global Hawk variants have flown more than 150,000 flight hours in support of antiterrorism, antipiracy, humanitarian assistance, disaster relief, airborne communications relay and information-sharing missions.

NASA and Northrop Grumman recently renewed a five-year Space Act Agreement that includes operation of the NASA Global Hawk system to conduct scientific experiments as well as technology implementations such as this OMS demonstration.

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 <a href="https://www.northropgrumman.com">www.northropgrumman.com</a> for more information.

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