# Northrop Grumman Ships Payload Module Two Months Early For Fourth Advanced EHF Protected Communications Satellite

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REDONDO BEACH, Calif., April 9, 2014 /PRNewswire/ -- Northrop Grumman Corporation (NYSE: NOC) continued its record of shipping Advanced Extremely High Frequency (AEHF) satellite payload modules ahead of schedule when the fourth arrived Feb. 11, nearly two months early, at Lockheed Martin Space Systems, Sunnyvale, Calif., AEHF system prime contractor.

A photo accompanying this release is available at http://media.globenewswire.com/noc/mediagallery.html?pkgid=24684

Complex phased array and nulling antennas, along with the advanced crosslinks, will be shipped later this year to complete payload delivery a full six months early. The payload module contains the processing, routing and control hardware and software that perform the satellite's communications function.

Northrop Grumman also delivered payload modules for the first, second and third Advanced EHF satellites ahead of schedule in 2007, 2008 and 2009 respectively. Launch for AEHF Flight 4 is currently planned for 2017.

"Shipping the payload module in advance of the contract delivery date meant developing novel approaches for integrating the payload since the last delivery of an AEHF payload four years ago," said Stuart Linsky, vice president, Communication Programs, Northrop Grumman Aerospace Systems, Redondo Beach, Calif.

Beginning with this shipment, he said the company implemented a new hybrid integration approach, jointly developed with Lockheed Martin and the U.S. Air Force's Space and Missile Systems Center. It allows Lockheed Martin to begin satellite bus unit integration within the payload module while a team from Northrop Grumman simultaneously completes the remaining payload integration.

"We began work on the fourth payload earlier than originally planned because Lockheed Martin shipped the bus structure early. With the hybrid approach for integrating the payload at our facilities and finishing at Lockheed Martin's, the government benefits from an overall reduction in program cost and schedule," Linsky said.

One Advanced EHF satellite will provide greater total capacity than the entire Milstar constellation currently on orbit. Individual user data rates will be five times improved. The higher data rates will permit two-way, jam-resistant transmission of tactical military communication such as real-time video, battlefield maps and targeting data.

In addition to its critical tactical mission, Advanced EHF also will provide the critical survivable, protected and endurable communications to National Command Authority including Presidential conferencing in all levels of conflict.

Advanced EHF satellite payloads contain a full range of features that protect against a wide range of threats. These capabilities include anti-jamming, low probability of detection and intercept, rapid recovery during a nuclear event, the ability to operate through scintillation, greatly reduced risk from physical attack to ground systems, and significant protection from cyber attack

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.

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Bob Bishop, 310-812-5227 (office), 310-251-0261 (mobile), bob.j.bishop@ngc.com