



Northrop Grumman Delivers Second Hosted Payload for Enhanced Polar System Protected Communications

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REDONDO BEACH, Calif., June 12, 2013 /PRNewswire/ -- Northrop Grumman Corporation (NYSE: NOC) has delivered the second of two payloads that will be hosted on government-owned satellites to bring next-generation protected, Extremely High Frequency (EHF) communications to users in the north polar region (above 65° North).

(Logo: <http://photos.prnewswire.com/prnh/20121024/LA985631.0GO>)

Developed for the U.S. Air Force's Enhanced Polar System (EPS), the payload efficiently leverages hardware and software designs Northrop Grumman originally developed for Advanced EHF (AEHF) protected military communication satellites.

"Reuse of existing hardware and software resulted in a highly successful EPS payload development, providing a significant value for Americans," said Stuart Linsky, vice president, Communication Programs, Northrop Grumman Aerospace Systems. "As we did with the AEHF payloads, both EPS payloads were delivered ahead of the government need.

"Like the first EPS payload, the second successfully used flight-proven components, dramatically lowering development risk, cost and schedule of the highly advanced anti-jam payloads," Linsky said. "As a result, we kept nonrecurring engineering costs and other expenses associated with first article satellites to an absolute minimum."

The EPS network will replace the current Interim Polar System and serve as a polar adjunct to the Advanced EHF system.

Both EPS payloads feature an onboard processing unit similar to those on AEHF satellites but scaled down to meet reduced mission capacity requirements. The payloads integrate functions of the Configurable On-board Router, Demodulator and Resource Control Computer/Security Equipment Computer on AEHF payloads into a single eXtended Data Rate Processing Unit on EPS.

EPS payload development began in 2008. The Air Force plans final operational capability for EPS for calendar year 2018. EPS consists of two EHF payloads hosted on government satellites, a Gateway Segment to connect modified Navy Multiband Terminals to other communication systems, a User Terminal Segment and a Control and Planning Segment (CAPS). Northrop Grumman was recently selected to develop the EPS CAPS to operate the EPS payloads.

Northrop Grumman's foundational payload control and planning capability leverages proven technologies from various heritage programs and the Common Network Planning Software system the company developed for the Wideband Global Satellite program to provide an affordable, scalable ground control capability for future protected satellite communications (SatCom) growth.

The MILSATCOM directorate at the Air Force's Space and Missile Systems Center at Los Angeles Air Force Base, Calif., is acquiring the Control and Planning and Gateway Segments.

"The successful scaling of AEHF components demonstrated by EPS provides a low risk basis for affordable protected SatCom with AEHF levels of protection at the cost of vulnerable unprotected SatCom," said Tim Frei, vice president, Communication Systems for Northrop Grumman.

"EPS proves that we can transition Technology Readiness Level 9, anti-jam, low probability of intercept communications into new platforms at low cost and risk, providing real protected SatCom at no more cost than unprotected SatCom," Frei said. "This will be a game changer for the government. This is part of Northrop Grumman's broad affordability initiative, which seeks to combine the best commercial technologies with TRL 9-level government technologies. These components include Low Cost Terminals, lower cost satellites, payloads, launch and ground control."

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