



AEHF-3 Protected Communications Payload, Built by Northrop Grumman, Completes On Orbit Testing Ahead of Schedule

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REDONDO BEACH, Calif., June 24, 2014 /PRNewswire/ -- The protected communications payload built by Northrop Grumman Corporation (NYSE: NOC) for the U.S. Air Force's third Advanced Extremely High Frequency (AEHF) satellite has completed on orbit testing ahead of schedule without any discrepancies, matching the high performance levels of others the company has provided.

The Northrop Grumman logo, featuring the company name in a bold, sans-serif font. "NORTHROP" is on the top line and "GRUMMAN" is on the bottom line, both in blue capital letters. A blue swoosh underline is positioned below the text.

Launched Sept. 18, 2013, aboard a United Launch Alliance Atlas V rocket, AEHF-3 reached its final position in geostationary orbit in January 2014. The payload began transmitting as planned when it was activated for the first time at that point, said Stuart Linsky, vice president, communication programs, Northrop Grumman Aerospace Systems.

An extensive series of on-orbit payload tests that followed was successfully completed in February. The Air Force said its 4th Space Operations Squadron at Schriever Air Force Base, Colo., took over satellite operations in March from the Space and Missile Systems Center in Los Angeles.

As a result, AEHF-3 has been integrated in a constellation of satellites forming a "ring of protection" around the Earth that provides the only global, highly secure, protected, survivable communications for warfighters operating on ground, sea and air platforms.

The constellation now includes five Milstar and three AEHF satellites, all communicating with each other via satellite-to-satellite crosslinks – a capability exclusive to Milstar and AEHF within the MILSATCOM enterprise. Northrop Grumman has provided all payloads for AEHF satellites to the prime contractor, Lockheed Martin Space Systems, Sunnyvale, Calif.

"The AEHF-3 payload turned in a stellar performance throughout on orbit testing," Linsky said. "With the third AEHF satellite seamlessly integrated into the 'ring of protection,' the Northrop Grumman-built crosslinks demonstrated a new first— operations at extended data rates [XDR] on both sides of an AEHF satellite. That wasn't possible with only two AEHF satellites on orbit."

Testing involved establishing communications networks between combinations of EHF terminals on the ground that use Milstar's medium data rates and other terminals equipped to handle the wideband AEHF XDR. They exercised and further proved payload software that configures worldwide networks, Linsky noted.

"The payload's software-based communication network architecture allows us the unprecedented ability to reconfigure assets as needed for an evolving battlefield," Linsky said. "This software-based architecture has enabled Northrop Grumman to deliver new capabilities our leaders and warfighters requested through the Milstar constellation for all 20 years since the launch of the first Milstar in February 1994."

Advanced EHF satellite payloads uniquely contain a full range of features that provide effective protection against the wide range of threats from capable adversaries. These features include anti-jamming for the strongest jammers, 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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