Lockheed Martin's Fifth AEHF Protected Communications Satellite Completes Launch Environment Test

SUNNYVALE, Calif., May 21, 2018 /PRNewswire/ -- Lockheed Martin (NYSE: LMT) recently put its fifth Advanced Extremely High Frequency (AEHF-5) satellite through its paces in realistic simulations of its future launch experience. The satellite completed the tests successfully and is now in system-level testing in preparation for delivery to the U.S. Air Force in 2019.

For the 39 days of Thermal Vacuum Chamber (TVAC) testing, AEHF-5 was subjected to extreme cold and heat in zero atmosphere, to simulate its upcoming on-orbit life. TVAC is a part of a battery of tests that ensure a satellite will arrive in space functionally sound and ready to operate through the extreme temperature changes of space.

Following the TVAC test series, AEHF-5 completed acoustic testing, where the satellite was subjected to high intensity, low frequency sound waves that simulated the vibrations generated by a rocket propelling its payload from zero to over 17,500 miles per hour in under eight minutes.

"TVAC and acoustic tests are critical milestones in the production cycle of a satellite, where we have one shot to get it right, so we take every precaution to ensure the vehicle is ready for the harsh space environment. We design and build our AEHF satellites to serve our military's strategic and tactical protected communications needs. The team and the satellite performed flawlessly, and AEHF-5 is now in system level testing," said Michael Cacheiro, vice president for Protected Communications at Lockheed Martin Space.

Following its anticipated 2019 launch, the satellite will join the AEHF constellation that continues to provide global, highly-secure, protected and survivable communications for U.S. and allied warfighters on ground, sea and air platforms.

In addition to AEHF-5, the fourth AEHF satellite is rapidly nearing the end of its production journey. AEHF-4 will be shipped to Cape Canaveral Air Force Station later this year in preparation for a launch on an Atlas V launch vehicle. Once on-orbit, AEHF-4 will complete the minimum constellation of AEHF satellites needed to bring global Extended Data Rate (XDR) connectivity to warfighters and international partners.

"XDR adds an unprecedented protected communication capability, providing 10 times more communications throughput than the legacy MILSTAR constellation," stated Cacheiro.

The AEHF team is led by the U.S. Air Force Military Satellite Communications Systems Directorate at the Space and Missile Systems Center, Los Angeles Air Force Base, Calif. Lockheed Martin Space, Sunnyvale, Calif., is the AEHF prime contractor and system manager, with Northrop Grumman Aerospace Systems, Redondo Beach, Calif., as the satellite payload provider.

For additional information about AEHF visit: www.lockheedmartin.com\aehf

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