



NEWS RELEASE

UNITED STATES AIR FORCE



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Tactical Satellite-3 completes groundbreaking experimental mission

KIRTLAND AIR FORCE BASE, N.M. – Tactical Satellite-3 will transition from an experimental demonstration to an operational asset when spacecraft control authority officially transfers on Saturday, June 12 from the Air Force Research Laboratory's Space Vehicles Directorate here to Air Force Space Command at Peterson AFB, Colo.

Launched in May 2009, the 880-pound satellite achieved many milestones such as proving the capability of transmitting processed data to a ground station within 10 minutes of call up.

“It has been a historic mission from the initial rapid checkout to the successful validation of the primary payload ARTEMIS, the Advanced Responsive Tactically-Effective Military Imaging Spectrometer. The small satellite has been able to assist with the earthquake relief efforts in Haiti and Chile and now the team looks forward to its new role in the operational arena,” said Dr. Thomas Cooley, TacSat-3 program manager. “The team accomplished all of the key program objectives and the satellite has provided high-quality, information-rich data, which we will continue to exploit for many months to fully quantify the applicability of the imaging spectrometer system to meet a wide range of applications. We also now have an excellent data set, which can be used to inform future satellite acquisitions of spectral systems.”

Some of the highlights of TacSat-3’s almost 13-month experimental flight included

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approximately 2,100 image collects performed by the ARTEMIS sensor, inaugural evaluation and employment in space of plug-and-play technology with the AFRL-led Space Avionics Experiment, downloading information obtained from ocean-based buoys to a ground station with the Office of Naval Research-sponsored Satellite Communications Package, and U.S. Army demonstration of tactical concept of operations with a space intelligence, surveillance, and reconnaissance system.

Originating almost six years ago as part of the Responsive Space Initiative addressing the military's requirements for rapid, flexible, and cost-effective systems operating in the cosmos, TacSat-3 served as the premier small satellite project to utilize a formal payload selection process incorporating combatant commands' suggestions and a flag officer panel appraisal. The spacecraft also featured first generation modular bus technology designed to provide flexibility for successive small satellite missions.

"TacSat-3 has been a pathfinder to explore concepts of operation for future Operationally Responsive Space systems and has demonstrated the utility of hyperspectral information to benefit Soldiers, Sailors, Airmen, and Marines around the world," said Dr. Peter Wegner, director, the Department of Defense's ORS office. "This has been a great partnership between many government and industry organizations and demonstrates how great things can be achieved on a small budget and in a short time. I look forward to future partnerships like this one."

Program collaborators consisted of the Army Space and Missile Defense Command, the Air Force Space and Missile Systems Center's Space Development and Test Wing, the AFRL's Sensors Directorate, Raytheon Space and Airborne Systems, ATK Spacecraft Systems and Services, NASA, and the National Geospatial-Intelligence Agency.

"The project successfully demonstrated that a high-quality and low-cost imaging spectrometer sensor can be a reality opening the door for future operational systems employing

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imaging spectrometer technology. Having conducted multiple experiments with mission partners that proved the capability to use high-quality data to address a wide range of problems for the warfighter, we look forward to transitioning our lessons learned to all appropriate acquisition agencies,” Dr. Cooley said.