

Lockheed Martin's Joint Common Missile Successful In Controlled Test Vehicle Flight

PRNewswire-FirstCall
ORLANDO, Fla.

Lockheed Martin has successfully performed the first test flight of the Joint Common Missile (JCM) Controlled Test Vehicle (CTV-1) at China Lake, CA, marking the first time the JCM has flown using a production-like rocket motor.

The CTV flight covered the maximum rotary-wing range of 16 kilometers, and is part of the Phase 1 risk reduction Systems Design and Development (SDD) contract. The successful test constituted the first phase of testing at the missile level, and verified the new missile's design for airframe performance and aerodynamics, as well as range.

"The successful CTV flight is an important milestone for JCM," said Steve Barnoske, JCM program director at Lockheed Martin Missiles and Fire Control. "We have previously tested all of the critical subsystems, including numerous rocket motor tests that indicated our design would cover the maximum range. But the real test is when you fly the missile using a rocket motor."

"The reason this is so important is that JCM provides twice the range of the Hellfire and Longbow on the Apache, Cobra and Seahawk helicopters, and three times the range of Maverick on the fixed-wing platform," Barnoske added. "That means that even with anticipated growth in the enemy's air-to-ground capabilities, our aviators and pilots will be able to engage them from safer standoff ranges, reducing the risk to aircrews."

The CTV-1 flight followed a computer-generated simulation trajectory. The CTV missile, a near-tactical prototype configuration, contained mass simulators in place of the seeker and warhead assemblies, with sufficient guidance electronics to fly scripted trajectories to the maximum range. The primary objective of CTV-1 was to demonstrate proper battery and motor initiation, clean separation from the M299 launcher and a stable, controlled flight to maximum range.

In the successful test, data was gathered on the autopilot and guidance algorithms, inertial measurement unit (IMU), aerodynamics, propulsion, control actuation and flight performance. This test lays the groundwork for future testing of the seeker and guidance electronics.

The test results also support the JCM expected range of 28 kilometers when launched at altitude on the fixed-wing platform, from which it will be flight-tested later in the program. The JCM has already performed fixed-wing wind tunnel tests and fitcheck/upload tests.

The JCM is the only weapon designed to meet eight validated critical capability gaps for the Army, Navy and Marine Corps. JCM will provide fixed and rotary wing pilots with a precision, adverse weather, low-collateral damage weapon against stationary and moving targets; a capability that doesn't exist today.

The JCM is the next-generation, multi-purpose, air-to-ground precision missile that will replace the Hellfire, Longbow and Maverick air-to-ground missiles currently in the U.S. arsenal. To deliver the multi-purpose warhead to its target, the Lockheed Martin JCM includes a tri-mode seeker with imaging infrared, semi-active laser and millimeter wave radar capabilities for active and passive "fire-and-forget" and precision-strike targeting. This will increase crew survivability and minimize collateral damage. The JCM also has maximum modularity for growth.

Headquartered in Bethesda, MD, Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services.

For additional information, visit our web site:

<http://www.lockheedmartin.com/>

SOURCE: Lockheed Martin

Web site: <http://www.lockheedmartin.com/>

<https://news.lockheedmartin.com/2005-06-28-Lockheed-Martins-Joint-Common-Missile-Successful-in-Controlled-Test-Vehicle-Flight>