Lockheed Martin Successful In Additional Dual Mode Guided Bomb Tests For U.S. Navy

Lockheed Martin successfully completed additional flight tests of its Dual Mode Guided Bomb (DMGB) at the U.S. Navy's China Lake test range recently. The weapons were released from Navy aircraft and maneuvered through controlled flight and target impact as planned, achieving mission success.

"Lockheed Martin continues to demonstrate superb performance with its Dual Mode Guided Bomb, designed to provide the warfighter the versatility of selecting the ideal guidance mode for specific targets without multiple weapons in inventory," said Cynthia Sailar, vice president and general manager at Lockheed Martin in Archbald, PA.

Lockheed Martin's DMGB provides the warfighter great versatility in mission planning without having to change weapons. When using dual-mode guidance, Global Positioning System/Inertial Navigation System (GPS/INS) data are used to bring the weapon close to the target, with laser guidance used in the terminal phase for improved end-game performance. GPS/INS guidance allows for a much greater launch envelope than would be possible for a weapon guided by laser only, providing greater versatility in mission planning, as well as enabling the weapon to be used when weather aloft obscures the target. In addition to dual-mode guidance, the DMGB can be used with laser-only or GPS/INS-only guidance only, providing capabilities duplicating either the existing Paveway II laser-guided bombs or GPS/INS-guided weapons, such as the Joint Direct Attack Munition (JDAM).

Laser-guided operation requires the weapon to have line of sight to the target until the target is impacted. During non-visual operation, using solely GPS/INS guidance, the pilot releases the weapon within the launch acceptable region and the DMGB guides itself to the target independently in a "launch-and-leave" mode. This mode is highly accurate enabling precision guidance during adverse weather, clouds, fog and smoke.

Recent tests presented challenging system performance scenarios, exercising multiple modes and varied positions within the LAR (launch acceptable region). All major modes were successfully demonstrated, as well as INS only, simulating a GPS-denied environment. Selectable terminal constraints of impact angle and impact azimuth were also tested successfully. These capabilities were previously only available on very expensive precision- guided weapons.

Lockheed Martin continues to work closely with the U.S. Navy and U.S. Air Force on the development of the DMGB. The DMGB program provides low-cost guidance kits for MK 82, 83 and 84 general-purpose warheads. DMGB enables employment of accurate air-to-surface munitions from fighter and bomber aircraft against high-priority fixed, slow moving and relocatable targets. DMGB has the same basic physical size and shape of the Guided Bomb Unit (GBU) family. It is compatible with all aircraft that currently support the GBU-12, 16 and 10 and JDAM. DMGB provides a GPS/INS-guided, highly accurate, all- weather precision guided weapon with laser terminal guidance to meet needs identified during Operations Enduring Freedom and Iraqi Freedom.

Lockheed Martin's facility in Archbald produces weapon systems for the U.S. Navy, Air Force, Army and international armed forces, as well as instrumentation and control systems for the U.S. Navy. The 350,000-square-foot facility, located in northeastern PA, designs, develops, manufactures, tests and fields products for the U.S. Department of Defense, allied nations and industrial customers.

Lockheed Martin's facility in Archbald was awarded the 2005 Shingo Prize for Manufacturing Excellence last March. Referred to by BusinessWeek magazine as the "Nobel prize of manufacturing," the Shingo Prize for Excellence in Manufacturing is awarded annually to companies that demonstrate world-class business results through the implementation of Lean Manufacturing principles and practices. The prize is administered by The College of Business, Utah State University, in cooperation with several nonprofit and corporate organizations.

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.

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