Raytheon

Paveway™

Laser and GPS/Laser Precision Guided Bombs





Paveway[™] is the world standard for low-cost, highly reliable precision guided bombs to fit any scenario.

Benefits

- The Paveway[™] family of weapons includes laser-only or dual-mode GPS/laser guidance
 - GPS/INS guidance for all weather
 - Laser guidance for precision and man-in-the-loop
- Options to fit all MK-80 series warheads as well as BLU-109, BLU-113, BLU-116 and BLU-122 warheads
- Low cost and high reliability
- Accuracy exceeds specifications
- Integrates with any tactical aircraft
- Combat proven

Description

The Paveway[™] family of precision guided bombs has been the leader in precision guided weapons for more than a quarter century. Paveway[™] bombs have been put to the test in every major conflict and proved themselves, time and again, as the weapon of choice by the end-users.

Paveway™ II Laser Guided Bombs (LGB) home on reflected laser energy directed on the target. This proven design drastically reduces the number of munitions required to destroy a target and features accuracy, reliability and cost-effectiveness — previously unattainable with conventional weapons. The universal nature of the laser guidance kits, an added feature, enables general purpose bombs to be readily converted to precision, tactically effective munitions.

Paveway™ III LGB enhances the Paveway™ II LGB's proven capability with increased delivery range, low-level release optimization and greater seeker lock-on distance. It flies an adaptive trajectory, which optimizes endgame energy for increased accuracy and enhanced warhead effectiveness.

The latest developments in the Paveway™ line are the Enhanced Paveway™ II Dual Mode GPS/ Laser Guided Bombs (DMLGB) and the Enhanced Paveway™ III DMLGB. These are among the world's first dual-mode laser/GPS guided bombs. This innovation combines the accuracy and flexibility of traditional laser-guided weapons with the all-weather capability of GPS guidance. The result is a weapon that decreases the required sortie count and weapon inventory while simultaneously increasing the mission success rate.

Both the Enhanced Paveway™ II DMLGB and Enhanced Paveway™ III DMLGB, now in production, were combat proven in Operation Iraqi Freedom and Operation Enduring Freedom.



Paveway™ Comparison Paveway™ II LGB Enhanced Paveway™ III DMLGB Paveway™ III LGB Enhanced Paveway™ II DMLGB EGBU-10: MK-84, BLU-109 Weapons GBU-10: MK-84, BLU-109 GBU-22: MK-82 GBU-24: MK-84, BLU-116, BLU-109 GBU-12: MK-82, BANG 250 GBU-24: MK-84. BLU-109. FGBU-12: MK-82 GBU-27: BLU-109 GBU-16: MK-83 BLU-116, CPE 800 EGBU-16: MK-83 GBU-28: BLU-113, BLU-122 Enhanced Paveway™ II DMLGB Enhanced Paveway™ III DMLGB (UK): GBU MK-81, BANG 125 GBU-28: BLU-113 Lot 1: MK-13/20 UK MK-13/18/20 BI U-109 Enhanced Paveway™ II DMLGB Lot 4 (PavewayTM IV) Description Combat-tested laser guidance Combat-proven design for Low cost combined with dual-mode laser/ Adds GPS guidance to low-altitude/ GPS guidance greatly increases envelope of long-range capability of Paveway™ III features pinpoint accuracy and low-level, long-range legacy Paveway™ II LGB. Combat proven low cost delivery LGB. Flight path optimized for penetrator warhead. Combat proven Independent dual-mode laser or GPS/INS Method Laser Laser Blended dual-mode updates GPS of Guidance (Pre- or post-launch acquisition) (Pre- or post-launch acquisition) 15,000-40,000 ft 9,000-80,000 ft 15,000-120,000+ ft Range 15,000-100,000+ ft Accuracy Laser<10m Laser<<10m GPS 10m GPS 10m Laser<10m Laser<<10m **Target Type** Soft Soft Soft Soft Hard Hard, very hard Hard, very hard Hard Fixed Fixed Fixed Fixed Mohile Mobile Mohile Mobile Moving Movina Movina Movina Target-of-opportunity Target-of-opportunity Target-of-opportunity Target-of-opportunity Angle-of-attack Angle-of-attack Impact Control None Angle-of-attack Impact angle Impact angle Impact heading Level Release Type Level Level Level Dive Dive Dive Dive Loft Loft Loft Loft Toss Toss Toss Toss Flight Profile Ballistic Shaped trajectory Optimized GPS trajectory Optimized GPS trajectory Weather Clear Clear All weather All weather Requirements **Navigation** Bang-bang Proportional navigation Optimized bang-bang Proportional navigation Aircraft None None 1760/1553: Full interface 1750/1553: Full interface **Electrical** Partial 1553: Minimal interface Partial 1553: Minimal interface Interface Power-only interface Power-only interface Requirements Enhanced Paveway™ Avionics Kit Enhanced Paveway™ Avionics Kit (EPAK) option provides capability (EPAK) option provides capability to non-1760 aircraft to non-1760 aircraft Limited by warhead requirements plus Limited by warhead requirements plus **Aircraft** Limited only by warhead Limited only by warhead Mechanical requirements requirements 1760/1553 interface for full-interface mode 1760/1553 interface for full-interface mode Interface Requirements **Number Produced** More than 200,000 More than 27,000 More than 1,700 More than 1,600 B-2, F-14, F-15, F-16, F/A-18, F-117 Aircraft Certified A-4, A-6, A-7, B-52, F-4, F-5, B-1, B-52, F-14, F-15E, Harrier, Mirage, Tornado F-14, F-15E, F-16, F/A-18, F-111, F-16, F/A-18, F-111, F-117 Undergoing certification on F-15E, F-16, Tornado F-117, AMX, Buccaneer, Harrier, Harrier, Mirage 2000, F/A-18, AMX, Super Etendard Hawk, Jaguar, Mirage 2000, Mirage F-1, Tornado Mirage III, Mirage F-1, Raytheon Company Super Etendard, Tornado Missile Systems Strike Weapons **Future Growth** P.O. Box 11337 EP2 Tucson, Arizona ■ JPF compatibility 85734-1337 USA Extended range kits Paveway™ II GBU-16 520.663.7052 phone EP3 Paveway™ III GBU-24 Crossrange Data link 520.663.7755 fax Enhanced Paveway™ II EGBU-16 Enhanced Paveway™ III EGBU-24 Penetrating MK-82 warhead www.raytheon.com

Paveway™ Family Medium Altitude Range Comparison

Downrange

