

Paveway II – GBU-12/16/10

Overview

The **Paveway II** family of **Laser-Guided Bombs (LGBs)** are precision strike weapons that guide onto a **coded infrared laser spot**, typically designated by the launching aircraft, a wingman (buddy lasing), or a JTAC.

They’re ideal for **stationary** or **slow-moving** targets in clear weather, especially when collateral damage must be minimized.

☐☐ Bomb Breakdown

Variant	Warhead	Weight	Based On
GBU-10	Mk-84	2000 lb	High-drag general-purpose bomb
GBU-16	Mk-83	1000 lb	Balanced between punch and weight
GBU-12	Mk-82	500 lb	Lightest, best for CAS or precision strikes

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Each LGB consists of:

- A **Mk 8x series bomb body**
- A **laser seeker head**
- A **guidance computer**
- A **maneuvering tail kit**

☐☐ Guidance Principles

- Seeks **reflected laser energy** from a specific 4-digit laser code (e.g., 1688)
- **Can only guide when laser is active and visible to seeker**
- **No GPS** – loses guidance if the laser is blocked or turned off

- Best for **direct line-of-sight attacks in clear weather**
 - Cannot guide behind mountains, through clouds, or if laser is obstructed
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Range & Employment Envelope

Altitude	Release Range (approx.)
20,000 ft	7-8 nm
10,000 ft	3-4 nm
5,000 ft	1.5-2.5 nm

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Higher altitude = greater standoff, but increased exposure to SAMs.

Best Use Cases

- **Static SAM sites**
 - **Buildings, bunkers**
 - **Vehicles and convoys (stationary or slow)**
 - **Bridges, radars**
 - Situations requiring **surgical precision** or **minimum collateral damage**
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Limitations

- Must maintain **line of sight to target** during guidance
 - Weather and terrain can **break the laser**
 - Laser code **must match** between seeker and designator
 - Not fire-and-forget — pilot or buddy must **continuously lase**
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