

## OBJECTIVE

Design, fabricate, and demonstrate an integrated flash bang counter-personnel, non-lethal 81 mm mortar round to suppress personnel at range, minimizing collateral damage.

## MILITARY RELEVANCE/OPERATIONAL IMPACT:

Matériel solution addresses multiple suppress, move, and deny non-lethal requirements.

Program will provide effects out to several kilometers from the existing 81 mm weapon system.

- Capability to suppress an area at range
- Standoff will meet Joint requirement

Partially integrated with existing systems. Limited documentation available. Engineering feasibility fully demonstrated in actual system application.

Technology Readiness Level (TRL) 6: System/subsystem model or prototype demonstration in a relevant environment

Successful Tech Demo held at Aberdeen Proving Ground (APG) in December 2014.



Joint Non-Lethal Weapons Program  
in coordination with:

- Combat Development and Integration (CD&I): Requirements & Resource Sponsor
- Armament Research, Development and Engineering Center (ARDEC): Mortar cartridge design & integration
- Naval Surface Warfare Center, Indian Head Explosive Ordnance Disposal Technology Division (NSWC-IHEODTD): Fusing and Payload Development and Testing
- Human Effects Center of Excellence, 711th HPW/RHD—Human Effects and Characterization



**Joint Non-Lethal Weapons Program  
(JNLWP)**

[jnlwp.defense.gov](http://jnlwp.defense.gov)

3097 Range Road  
Quantico, VA  
22134-5100

Phone: 703.784.1997  
DSN: 278.1997

## 81 mm Non-Lethal Indirect Fire Munition (IDFM)



Escalation of Force (EoF) Branch

Combat Development & Integration  
(CD&I)

Marine Corps Combat  
Development Command  
(MCCDC)

**Distribution Statement A:  
Approved for Public Release  
Distribution Unlimited**

### Cartridge Design:

- 81 mm Cargo Body
- Compatible w/ existing mortar & propulsion system
- Two-Parachute design to mitigate falling debris hazard
  - Parachute tethered to tail fin
  - Parachute tethered to fuze and shell body

### Flash Bang Payload Design:

- Novel pyrotechnic composition
- Reinforced cardboard body to eliminate fragment hazard
- Drag ribbon for stabilization
- 14 payloads per cartridge

