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:
Materiel 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

Escalation of Force (EoF) Branch
Combat Development & Integration (CD&I)
Marine Corps Combat Development Command (MCCDC)
**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

Fuse initiates a booster that ignites the payload fill on the ground.

Minimizes Risk of Significant Injury (RSI) to include falling objects and flash bangs.