

# **Joint Non-Lethal Weapons Program (JNLWP) Brief to the Joint Service Small Arms Systems Section Annual Conference**



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# Non-Lethal Weapons Core Capabilities

## Counter-personnel

- Crowd Control
- Incapacitate Individuals
- Deny Area to Personnel
- Clear Facilities/Structures/Areas



## Counter-materiel

- Area Denial to Vehicles (land, sea, and/or air space)
- Disable/Neutralize Vehicles, Vessels, Aircraft, & Equip

## Counter-capability

- Disable/Neutralize Facilities & Systems
- Deny Use of Weapons of Mass Destruction

*Complementary  
not core*



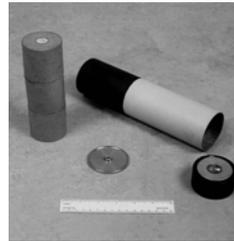
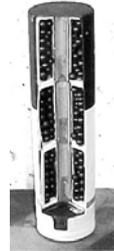
# Acquisition Programs

## Modular Crowd Control Munition (MCCM)



**IN PRODUCTION**

## 66mm Vehicle Launched NL Grenades (VL NLG's)



## Portable Vehicle Arresting Barrier (PVAB)



## 40mm Non-Lethal Crowd Dispersal Cartridge (NLCDC)





# COTS Nailgun Evaluation



MARCORSYSCOM Accomplishing Evaluation

Market Survey of COTS Nailguns and other Agency Nailguns  
Cordless Utility Wood Framing Nailer  
Cordless Concrete Ring Nailer

Procure Ten COTS Nailguns & evaluated during 4QFY01 LUE

Down-select to two cordless nailguns with Production Options

Rapid Acquisition planned (MS C) for 2QFY02

MCCDC Draft Statement of Need (SON) – Feb 01



*IM250IT  
Cordless Finish Nailer*





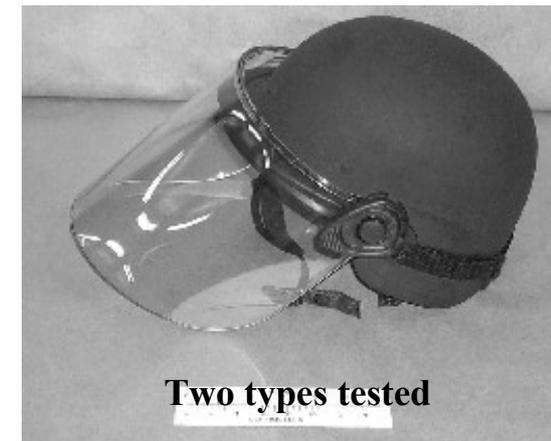
# Non-Lethal Capability Set Protective Equipment Cold Temp. Vulnerability Study

## Nine Kinetic Energy Munitions used:

- **MCCM**
- **XM99 Grenade – Stingball (.32 cal)**
- **XM1013 – Stingball (.32 cal)**
- **XM1029 CDC – Stingball (.48 cal)**
- **40-B – Stingball (.60 cal)**
- **M95 – Plastic coated steel ball (.70 cal)**
- **XM1012 – Finned rubber projectile (12 ga)**
- **M1006 Sponge Grenade – 40 mm**
- **40 F – Foam rubber baton – 40mm**

## Temperature Ranges

-15°F to 25°F



Two types tested

## Conclusions:

- **Shin guards sustained minor surface indentations**
- **No catastrophic failures of body shields**
- **Face shield's mounting hardware failed – plastic visor fell off when impacted by M1006 Sponge Grenade. Repeated tests at room temp yielded broken alignment pins.**



Two types tested



Three Types Tested

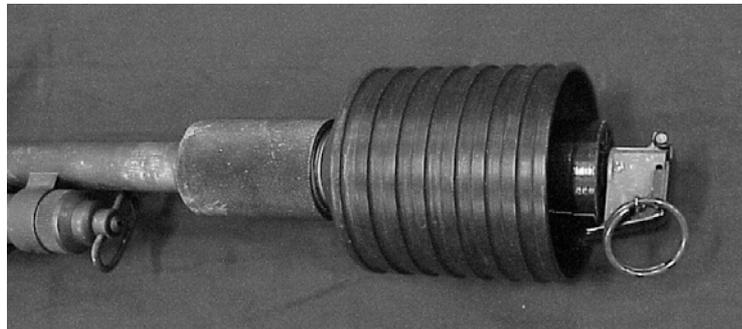


# Joint Integration Program

- **FY00 late funded efforts will deliver FY01 reports**
  - **12 Gauge Flash Bang Assessment**
  - **Stun / Flash Bang Grenade Assessment**
  - **Improved OC Dispenser Assessment**
  - **JSCS Launching Cup development**
  
- **FY01 Focus is on the USMC, USA, USCG and COTS NL Ammunition Test**
  
- **FY02 Planned Initiatives**
  - **Joint NL Munitions Program Plan**
  - **Red dot aiming device for M203**
  - **Voice Amplification System**



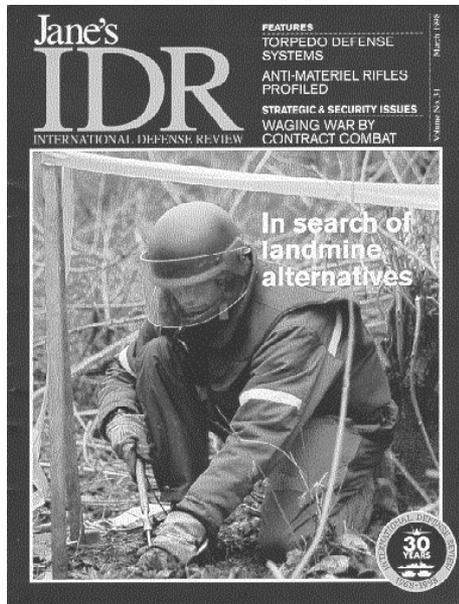
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# Concept Exploration Programs

**Area Denial to Personnel (AD-P)  
NL APL-A**



**Anti-Traction Material  
System Specific CEP  
USMC**



**Clear Facilities (CFAC)  
USMC**



**FY01 New Starts:**

- Incapacitate Personnel (USMC)
- Area Denial to Boats (USN)
- Area Denial to Vehicles (USA)
- Crowd Control (USA)



# FY02 New Start: 40mm Mk19 NL Mmunition System Specific CEP

## •Objective:

- Develop a NL Mmunition for the 40mm Mk 19 Grenade Machine Gun

## •Lead Service: USA

## •Supporting Services: All

## •Technology Status:

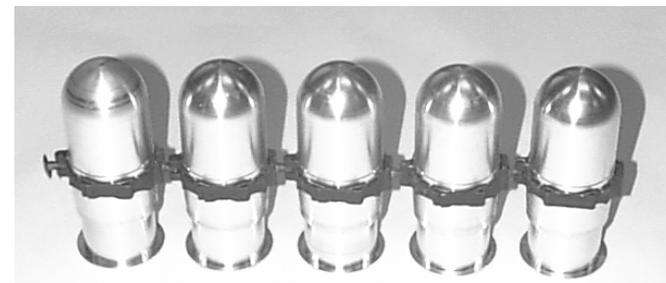
- Basic cartridge design demonstrated
- Non-lethal cartridge design variants ready for prototype fabrication and feasibility demo

## •Proposed Exit Criteria:

- Concept of Employment evaluation (FY02)
- Munition payload analysis & effectiveness study
- Tech demo

## •Other Issues:

- Combined MS A/B planned
- Short development timeline
- Interested services - POM-04 Procurement wedge





# FY02 New Start: Clear Space Device System Specific CEP

## •Objective:

- Develop a 12 gauge launchable Multi-Sensory Grenade (MSG) to Clear a Facility or Structure
- Pyrotechnic Whistle, Flash & Malodorous Payload

## •Lead Service: USMC

## •Supporting Services: All

## •Technology Status:

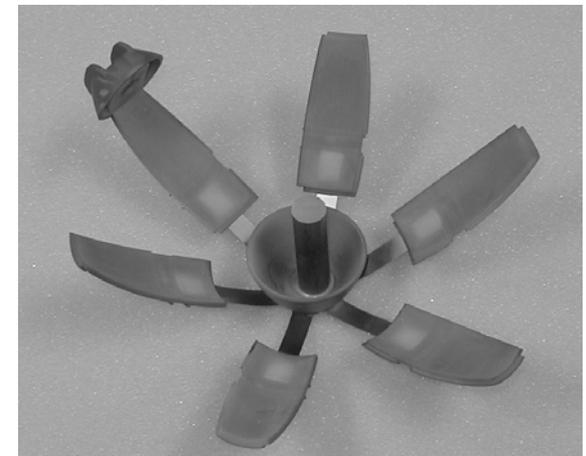
- MSG SBIR Phase II Demonstration – 4QFY02
- Transition from SBIR Effort to Acquisition System - TBD
- Integration of Three COTS Technologies

## •Proposed Exit Criteria:

- Draft Clear Spaces ORD in Coordination – Complete 2QFY02
- Concept of Employment Evaluation (FY02)
- Munition payload analysis & effectiveness study
- Technical Demonstration

## •Other Issues:

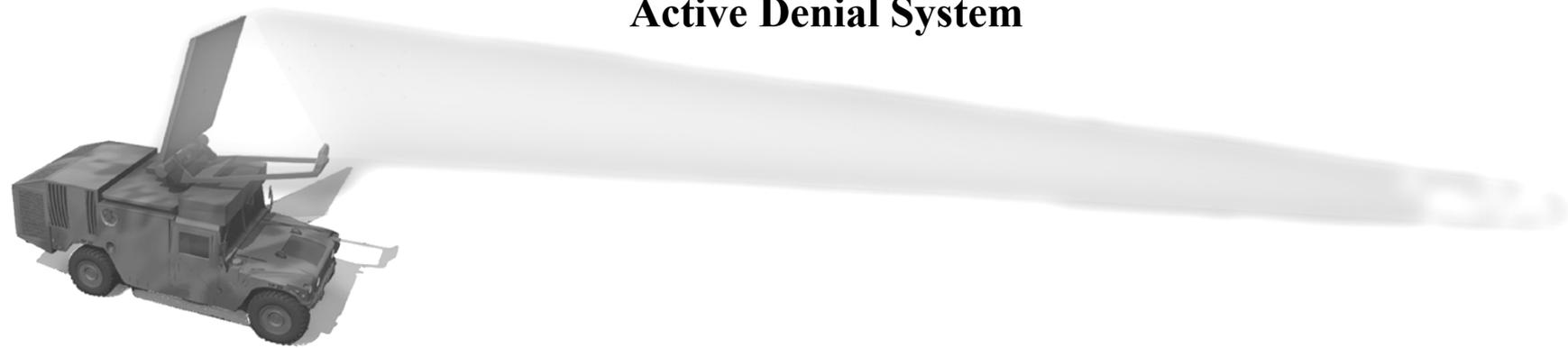
- Short development timeline
- Interested services - POM-04 Procurement wedge





# Pre-Milestone A Programs

## Active Denial System



## NL Mortar Munitions

### Objective Individual Combat Weapon NL Rounds



## Pulsed Energy Projectile



*E. P. industries, Inc. / Mission Research Corp.*



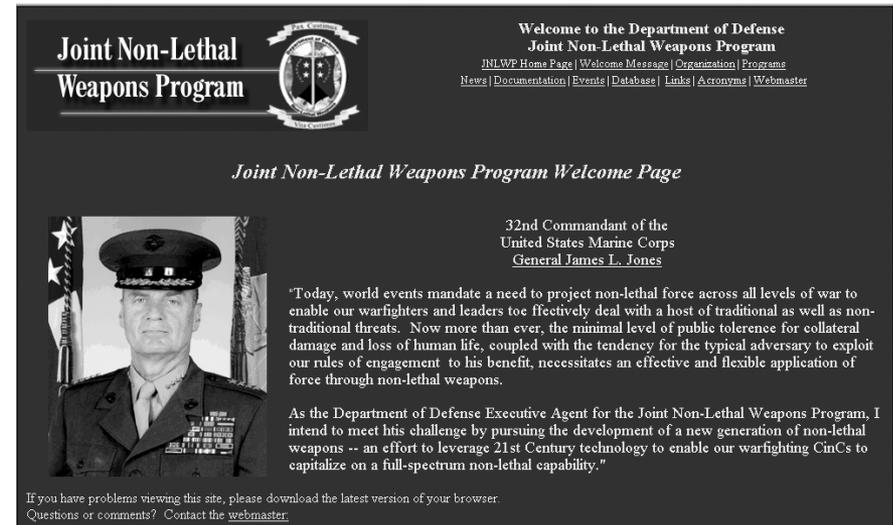
# USCG Voting Membership

- Unanimous IPT Support
- USD/AT&L Endorsed
- MFR Signed
- Joint Service MOA revision pending





# Joint NL Weapons Program Website



<http://www.jnlwd.usmc.mil>

- Joint Mission Area Analysis (JMAA) Data Added
- Non-Lethal Weapons Program Calendar of Events
- Newsletters
- Links to additional Non-Lethal Weapons web sites
- Current and Historical JNLW Documentation

## Website Documentation Storage & Retrieval System (Winter 2001)

- Two Separate & Segregated Compartments
  - Public Domain
  - Sensitive Documentation & Information (requires JNLWD Provided User ID & Password)
  - Additional JNLW Documentation (Adobe Acrobat Files)
  - FTP Capability to Receive & Transmit Documentation
  - NLW Clipart & Video Files
  - Multi-Service JNLWP Phone Directory & Outlook Contacts List
  
- Point of Contact – Bill Shattuck, 703-441-2549 ext. 1017 or [william.shattuck@2asc.com](mailto:william.shattuck@2asc.com)



# Other Ongoing Efforts

## ➤ **Modeling & Simulation**

**NL Capability Set Studies (FY01 & FY02)**

**M&S Working Group – Evaluate Other Models**

## ➤ **Human Effects Characterization**

**Human Effects Review Board**

**Human Effects Center of Excellence**

**Human Effects Advisory Panel (Non-Gov. (Independent))**

**Health Effects Modeling Improvements**

## ➤ **Exercise Engagement**

**Sharp Eagle, Millenium Challenge, Etc...**

## ➤ **Technology Investment Programs**

**No FY02 TIP Efforts**

**NTIC, DOE STP, SBIR, etc...**

## ➤ **CINC Engagement**



# Program Summary

- The JNLW Program has accomplished much since 1997:
  - Operational Success with Fielded NL Capability Sets
  - 4 New Acquisition Programs
  - DepSecDef designation as a Jointly Manned Activity
  - Warfighting CinC visits to discuss JNLW program and requirements generation
  - JROC endorsed Joint Mission Area Analysis
- Much remains to be done to move beyond the “rubber bullet modality”:
  - Both “Top Down” Guidance and “Bottom Up” Acceptance will be necessary



# Other Ongoing Efforts

**Questions or Requests For More Detailed Information:**

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