



XM7 SPIDER NETWORK COMMAND MUNITION DISPENSING SET

**National Defense Industrial Association (NDIA)
2012 Joint Armaments Conference
15 May 2012**

LTC Dennis Gaare
Product Director Area Denial
PM Close Combat Systems
973 724 1639
dennis.gaare@us.army.mil

Ken Heider
Deputy Product Director Area Denial
PM Close Combat Systems
973 724 2622
kenneth.heider@us.army.mil



XM7 Spider System Overview

PM CLOSE COMBAT SYSTEMS

Remote Control Unit - RCU

Enables Man-in-the-Loop (MITL) command & control of all munitions in the field



Transceiver

RCU with transceiver (RCUT) makes up the Remote Control Station (RCS)

Standard antenna mast or **VHAM**



Munition Control Unit – MCU

Hand emplaced, remotely controlled munitions. Detects intrusions, controls lethal & non-lethal munitions



Repeater

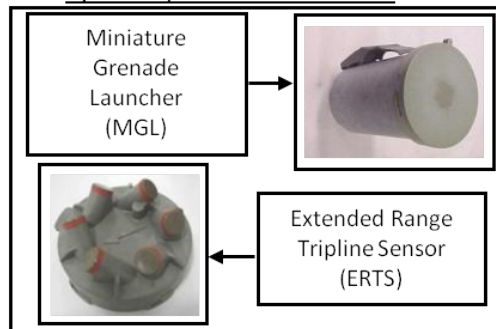
Provides for extended Range &/or to Overcome difficult terrain

1000m
(3500m w/VHAM)

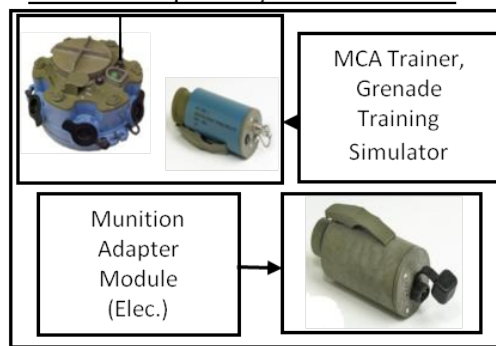
500m

500m

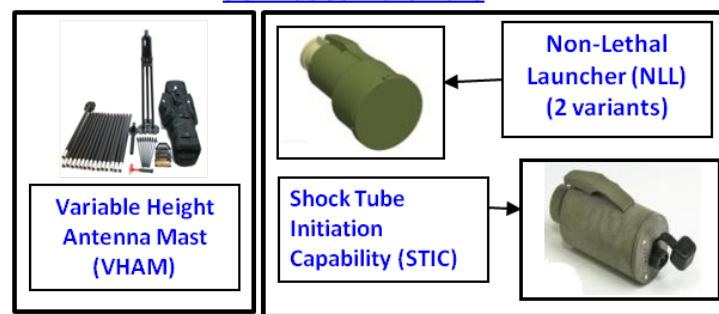
Spider System Attachments



Additional Spider System Hardware



SCE Added Hardware



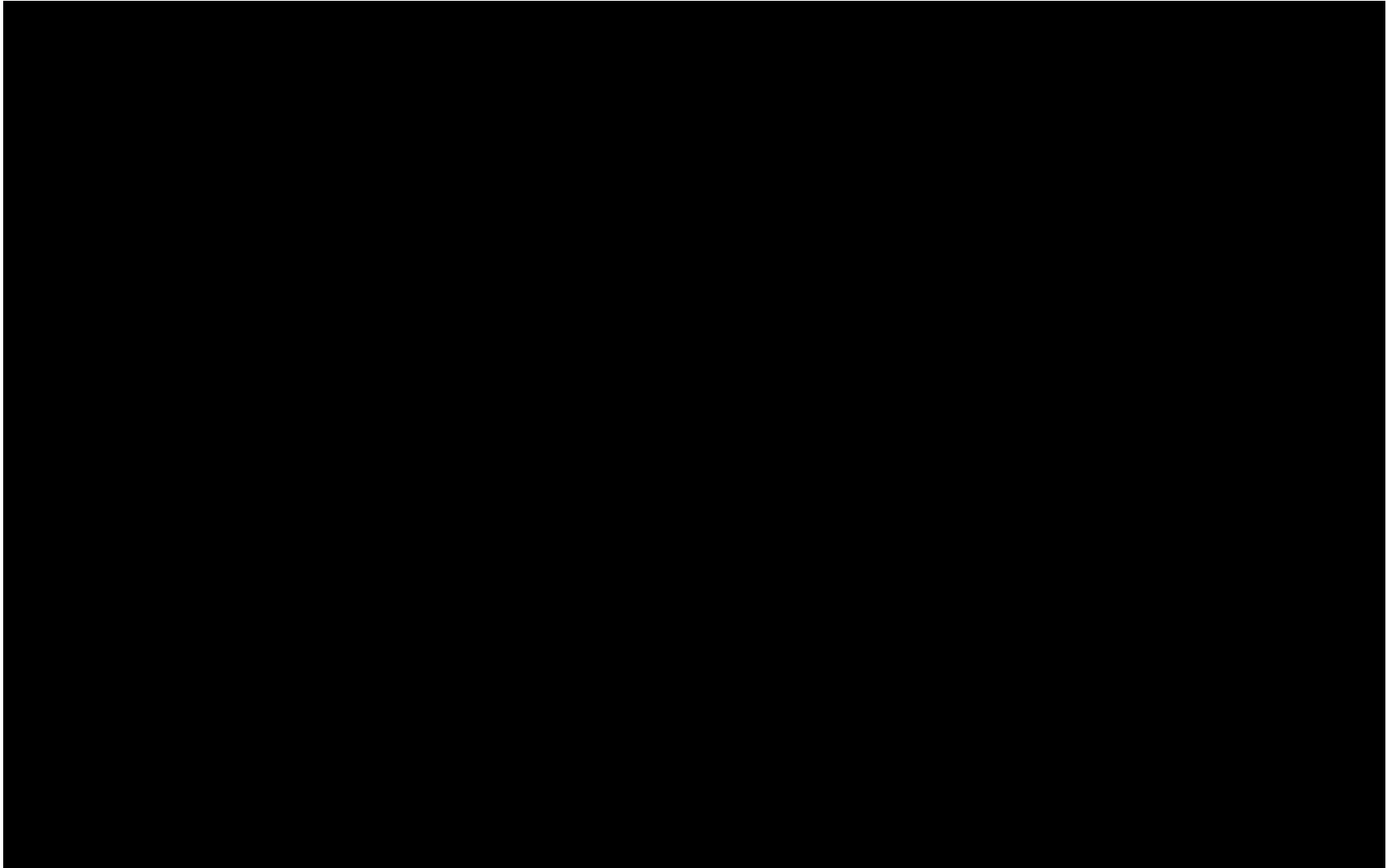
System Capabilities

- Self-Destruct & Self Deactivate
- Command Reset/Recycle Self-Destruct
- Transfer of Control
- Interface to ABCS via removable media
- Command Destruction
- ON – OFF – ON (safe passage/maint.)
- Multiple Effects (Lethal / NL / Demo)
- Intrusion Detection
- Anti-tamper/Self Protection
- Reuse



Spider System Video

PM CLOSE COMBAT SYSTEMS

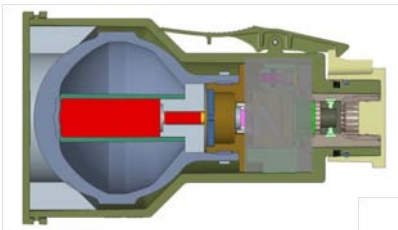


DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

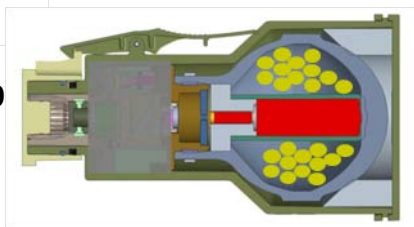


XM7 Spider Non Lethal Launcher (NLL)

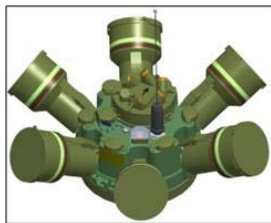
FLASH BANG & STING BALL



Flash Bang XM809
DODIC - TS08



Sting Ball XM810
DODIC - TS07



MCU with NLLs

CURRENT STATUS

- **Successfully conducted** Force Development Test 2 (FDT2), Fort Bliss, TX on 27-29 June 2011
- This test was the **first time that Soldiers employed Non-Lethal Launcher (NLL) grenades.**
- Currently seeking to improve grenade reliability based on the FDT2 results.

DESCRIPTION

- NLL is a Non-Lethal alternative to the lethal Spider MGL
- Provides escalation of force / response capability
- Provides an early warning to the user
- Utilizes existing technology to the maximum extent possible to minimize development cost and risk

KEY MILESTONES/ ACTIVITIES

- | | |
|--|--------------|
| ✓ Force Development Test2 (FDT2) | Jun 11 |
| ✓ HECOE NLL GIM Report | Mar 12 |
| ✓ Issue Letter of Contemplation | Apr 12 |
| • Contract Award | Jun 12 |
| • Design Verification Test (DVT) | May - Jul 13 |
| • Insensitive Munitions / Final Hazard Classification (IM/FHC) | May - Jun 13 |
| • Type Classification | Jan 14 |



Spider Non Lethal Requirements

The Spider requirement for the Non Lethal effort is documented in the **JROC Approved** Capability Production Document (**CPD**) For Spider Networked Munitions System June 2008 Final Version 1.8.

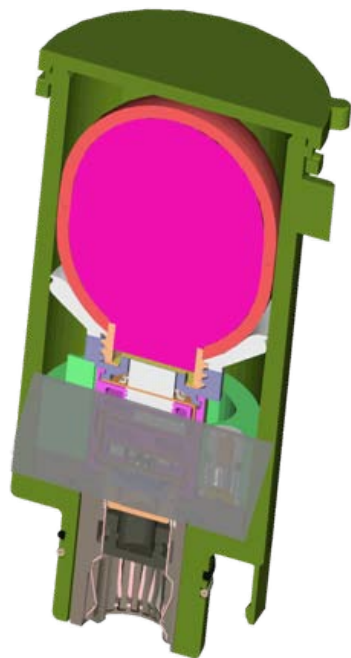
- Para 3, page 9 - Lethal and **non-lethal** Spider munitions are needed to replace the capabilities provided by all current conventional non-self-destructing anti-personnel landmines (APL) and to protect and enhance the combat effectiveness of deployed forces.
- Table B. Attribute 9, page 15, **Non Lethal**
- Paragraph n, Non-lethal (NL), page 19: DOD desires a companion capability to the lethal Spider component, which can **incapacitate or restrain**, but not intentionally kill its target. It is desired that the NL Spider component provide the **same area coverage** as the lethal Spider munition. The restraining mechanism should be uni-directional (threshold) or omni-directional (objective).



Non Lethal Launcher (NLL) Design

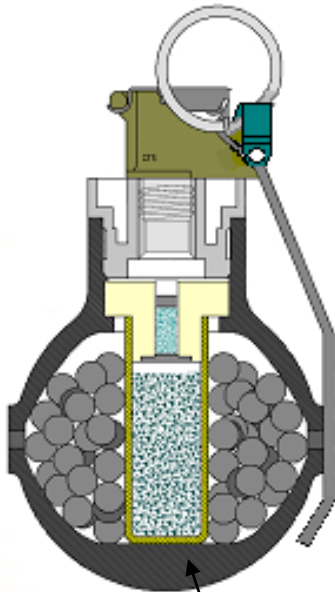
PM CLOSE COMBAT SYSTEMS

XM-104 Non Lethal
Bursting Hand
Grenade (NLBHG)

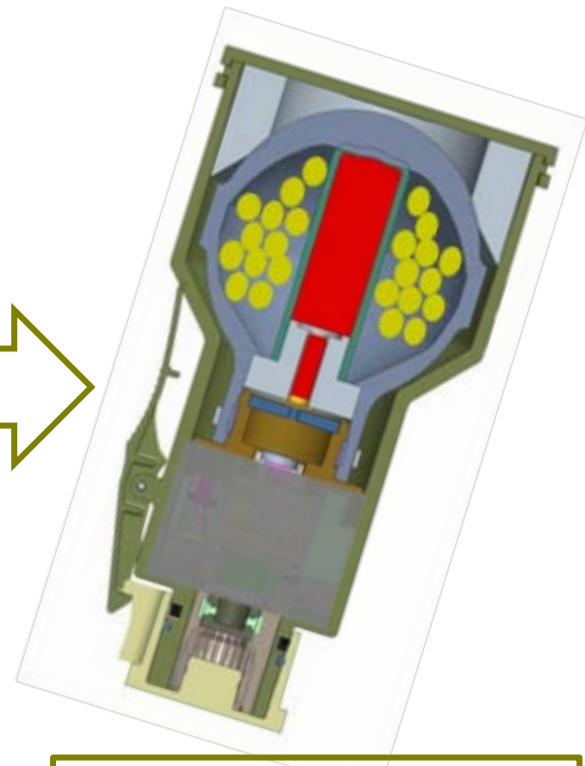
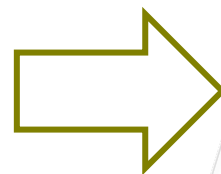


Miniature
Grenade
Launcher (MGL)

Lethal



*The Spider XM7 NLL Leveraged
the XM-104 Non Lethal
Bursting Grenade Body*



Non Lethal Launcher
(NLL)



Questions?