

National Defense Industrial Association
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GENERAL DYNAMICS
Ordnance and Tactical Systems

**155mm XM1063
Non-Lethal Personnel
Suppression Projectile**

April 23-26, 2007

Charlotte Convention Center – Charlotte, North Carolina



XM1063 - Outline

- Introduction
- Why Non-Line of Sight Non-Lethal?
- XM1063 Design
- Program Timeline
- Program Successes
- Upcoming Program Events
- Summary/Conclusions
- Acknowledgments



XM1063 - Introduction

- XM1063 Provides Non-Line of Sight Non-Lethal Capability to the US Army
- US Army ARDEC Leads the IPT That is Developing the XM1063
 - GD-OTS focuses on payload submunition development and production of test hardware
 - Many contractors and other government agencies have contributed to the IPT's success
- Program Is In the Third and Final Year of an Advanced Technology Objective Development Effort
- Progress Made in First Year of Effort Was Presented at Last Year's Conference
- This Presentation Will Update Progress To Date



XM1063 – Why Non Line of Sight Non-Lethal?

- XM1063 Intended to Provide a New Capability
 - Non Line of Sight Non-lethal
 - Separate combatants from non-combatants
 - Suppress, disperse or engage personnel
 - Deny personnel access to, use of, or movement through a particular area, point or facility
- Addresses Need for Non-Lethal Options That Is Highlighted by Current Conflicts in Iraq and Afghanistan
 - Minimizes collateral damage, fatalities and permanent injury



XM1063 Design

Utilizes Type Classified M864
DPICM Projectile Body, Base
Burner, Fuze, Expulsion Charge



Non-Lethal Submunitions Replace
DPICM Payload

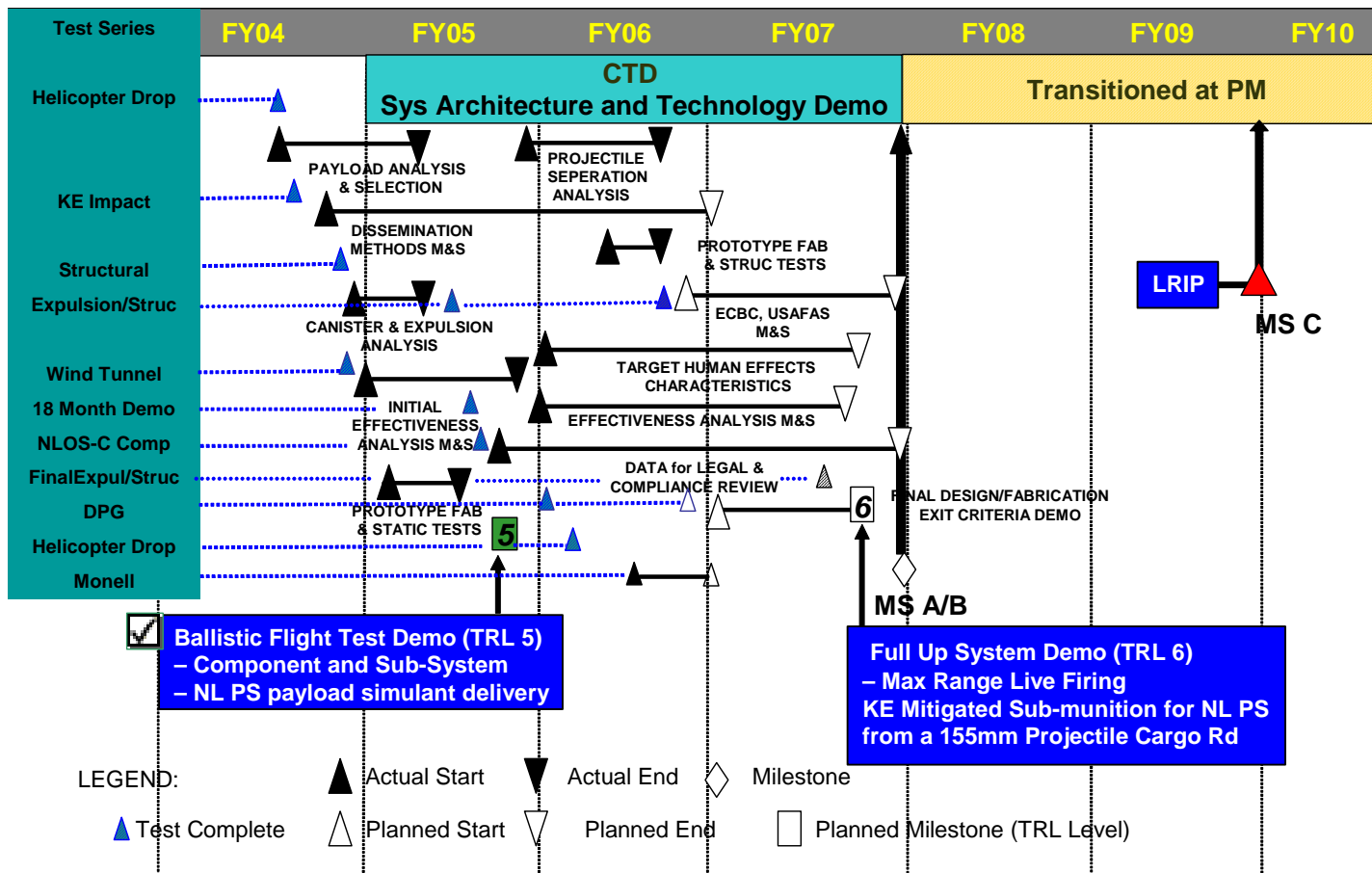


XM1063 Non-Lethal
Submunition – Post Dispense

Submunitions
Dispense Non-Lethal
Personnel
Suppression Agent
Without Detonators or
Explosives



XM1063 – Program Timeline





XM1063 Program Successes

- All Up Round Testing
 - Successful Test Firings Demonstrating TRL 5+
 - Standard 39 Caliber Gun
 - June 2005, MACS Zone 4 (original submunition design)
 - July 2006, MACS Zone 5 (updated submunition design)
 - February 2007, MACS Zone 4 (further updated submunition design)
 - Prototype FCS NLOS-C
 - July 2005, MACS Zone 3 (original submunition design)



XM1063 Program Successes

- Component Level Testing
 - Submunition Static Dissemination Testing
 - October 2005 (various submunition configurations)
 - September 2006 (various submunition configurations)
 - Helicopter Drop Testing
 - December 2005 (updated submunition drag device design)
 - Wind Tunnel Testing
 - June 2005 (original submunition drag device design)
 - October 2006 (further updated submunition drag device design)
 - Non-Lethal Payload Clinical Trials
 - Frangible Case Design Development
 - Ongoing
 - Submunition Structural Testing
 - October 2006



XM1063 Upcoming Program Events

- Milestone B – Transition to PM
 - TRL 6 Demonstration Test Firing scheduled for 4QTR FY07
 - Minimum and Maximum Range
 - Flight Stability
 - Structural Integrity
 - Target Effectiveness
 - Area Coverage



XM1063 – Summary/Conclusions

- Continued Program Success Since Beginning of Program
- Provides Non Line of Sight Non-Lethal Capability
- Utilizes Type Classified M864 Components for Easy Integration Into Inventory
- Demonstrated Using Standard 39 Caliber and Prototype FCS NLOS-C (TRL 5)
- Transition to PM at the End of FY07



XM1063 - Acknowledgements

I'd like to acknowledge and thank the entire XM1063 IPT. The contributions of each IPT Team member and member organization has allowed for continued program success.



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