

# XM307 Integration

## *Increased Platform Lethality*



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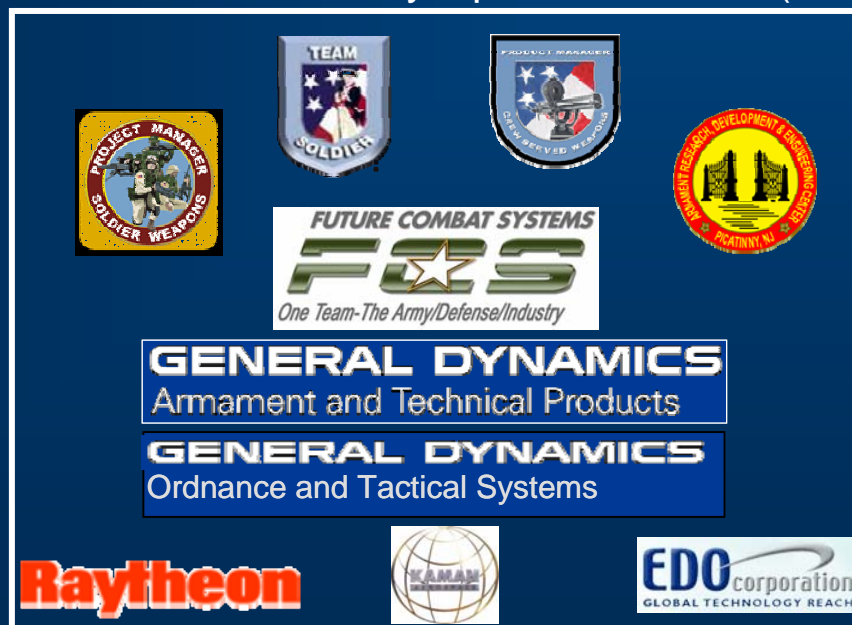
***Robert Cavoretto, Sr. Program Manager – XM307***

***GDATP***

# XM307 Program

## XM307 System Design & Development (SDD)

- ✓ PM-CSW ARDEC
- ✓ GDATP – Weapon & System Integrator
- ✓ GDOTS – 25mm Ammunition
- ✓ Raytheon – Surrogate Target Acquisition Fire Control
- ✓ Initiated Apr04 for XM307 Advanced Crew Served Weapon (ACSW)
- ✓ Transition to XM307 Remotely Operated Variant (ROV) for FCS



# XM307 Weapon System

## ACSW & ROV

### Common Attributes

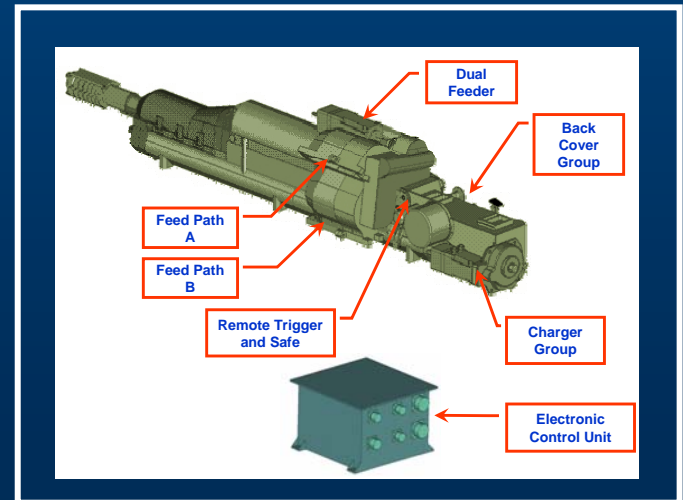
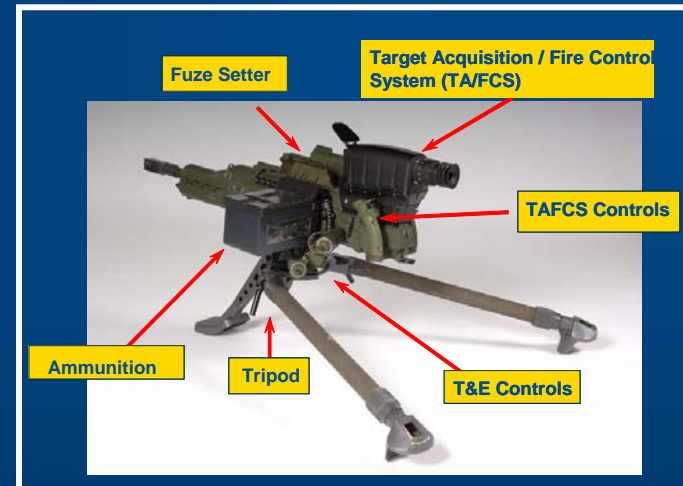
- ✓ Light Weight
- ✓ Reduced Recoil
- ✓ 25mm HEAB & AP Ammunition
- ✓ Accurate and reliable

### ACSW

- ✓ Ground mount and dismountable vehicle applications
- ✓ Light weight tripod with T&E
- ✓ Full ballistic solution Target Acquisition Fire Control
- ✓ Ring mount and pedestal mount compatible
- ✓ Converts to .50cal XM312

### ROV

- ✓ Integrated weapon, feed, sensors, and actuators
- ✓ Reduced integration effort, and weight and volume impact to vehicles.
- ✓ Remote safe, charge, and fire, self-powered
- ✓ Dual feed, first round selectable



# XM307 ACSW

## *Readily Supports Platform Integration*



- ✓ Light Weight, Low Recoil, and Self-Powered, Minimizes Platform SWaP Requirements
- ✓ Rapid Dismount Capable
- ✓ Dual Feed Capable
- ✓ Lethal 25mm Munitions
  - Air Burst Defeats Defilade Targets to 2,000m
  - Suppress and Defeat Area Targets to 2,000m
  - Armor Piercing Defeats Light Armor
- ✓ Remote Operations Capable
- ✓ Day/Night/All Weather Capable

**Unmatched Lethality with a Light Machine Gun Package!**



# XM307 / XM312 Weapon System

## 25mm & .50cal

- ✓ Operator level change from 25mm XM307 to .50 cal XM312
  - Four part interchange
  - No special tools
- ✓ Fires standard .50 cal ammunition
- ✓ Lower recoil, lighter weight, and higher accuracy than legacy weapons



↶ XM307

XM312 ↷



**Lightweight and flexible design to defeat variable threats**

# XM307 / XM312 Mobility

## Portability for Dismounted Operations



System	40mm Mk-19 Mod3	Cal .50 M2HB	25mm XM307
Weapon Weight (lb)	75.6	84.0	<b>30.0</b>
Tripod Weight (lb)	65.4	46.1	<b>18.8*</b>
Fire Control (lb)	N/A	N/A	<b>6.5</b>
Unloaded System Weight (lb)	141.0	130.1	<b>55.3</b>
Peak Recoil (lbs)	800	1000	<b>250</b>

\* includes Pintle/T&E

- ✓ **Quickly dismounts from vehicle**
  - Supports Close Combat Fight
- ✓ **Light & compact**
  - Portable over rough terrain
  - 75-85 lb weight savings for most platforms

**Enhances Close Combat Employment Flexibility**

# XM307 FCS Vehicle Integration

## Common Weapon, Common Solution

The XM307 has been selected as the Common Close Support Weapon for the Future Combat System Program

### ➤ FCS Manned Ground Vehicles



NLOS-C  
Secondary Armament



FRMV  
Primary Armament



MCS  
Secondary Armament



C2V  
Primary Armament



NLOS-M  
Secondary Armament

### ➤ FCS Unmanned Ground Vehicles



ARV-A(L)  
Primary Armament



ARV-RSTA  
Primary Armament

# XM307 Platform Integration

## Vehicles & Mounts

### CROWS Mount

#### ✓ Accomplished 3Q02

- Sponsored by JSSAP Office and TACOM-ARDEC
- GDATP – XM307 Weapon System Integrator
- Raytheon – Fire Control System
- Recon Optical, Inc. – CROWS Lightning Mount

#### ✓ Successful integration & testing

- Remotely operated weapon/mount system
- Target, aim, and fire 25mm ammunition

### XUV

#### ✓ Accomplished 1Q03

- Sponsored by JSSAP Office and TACOM-ARDEC
- GDATP – XM307 Weapon System Integrator
- Raytheon – Fire Control System
- Recon Optical, Inc. – CROWS Lightning Mount
- GDRS – Experimental Unmanned Vehicle

#### ✓ Successful integration & demonstration

- Remotely operated weapon/mount/vehicle system
- Target, aim, and fire 25mm ammunition





# XM307 Platform Integration

## *Stryker Remote Weapon Station*

### ✓ Phase 1

- Accomplished 4Q04
- XM312, .50cal, integrated onto Kongsberg Block 1 RWS
- Successful Integration, Operation, Targeting, & Firing

### ✓ Phase 2

- Accomplished 3Q05
- XM307, 25mm, Integrated onto Kongsberg Block 2 RWS
- Successful Integration, Operation, Targeting, Firing, and Air-Bursting of 25mm rounds
- Dispersion 70% of XM307 SDD Exit Criteria



# XM307 Platform Integration

## Phase 3 Integration & Stryker Demonstration

- ✓ Joint Industry / Government initiative
- ✓ Integration and testing at RTTC
- ✓ May 11, 2006 Demonstration of system capability, lethality, and portability
  - Integrated XM307 / RWS / Stryker System
  - 25mm TP & TP-S rounds
    - Static vehicle live fire
    - Moving vehicle live fire
  - .50cal Ball & Tracer rounds
    - Static vehicle live fire
    - Moving vehicle live fire
    - Moving vehicle / moving target live fire
  - Dismounted firing
    - 25mm & .50cal





# Summary

- ✓ Demonstrated capability with multiple platforms
- ✓ HEAB, AP, and .50 cal provides a lethality overmatch
- ✓ Light weight and low recoil facilitates integration



## CONTACT INFORMATION



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