




MCoE Industry Day



Capabilities Development & Integration Directorate



Maneuver Requirements Division Heavy Systems Branch Breakout Session

LTC Alexis Rivera Espada, Chief, Heavy Systems
Marty Plummer, Deputy Branch Chief, Heavy Systems



Agenda



Capabilities Development & Integration Directorate

- Welcome/Panel Introductions/Overview ➤ LTC Rivera, Branch Chief
- Maneuver Requirements Division Overview
- Organization Chart
- Mission Essential Tasks
- Fleet Portfolio
- Priorities of Effort ➤ Marty Plummer, Deputy Branch Chief
- Focus Areas
- Heavy Branch Interests
- Closeout ➤ LTC Rivera, Branch Chief



Maneuver Requirements Division



Capabilities Development & Integration Directorate

Mission: MRD executes materiel related tasks, test and experimentation for manned maneuver capabilities and platforms and develops requirements documents in support of selected acquisition strategies in order to ensure the primacy of our Soldiers and the formations in which they fight.

Maneuver Requirements Division



Director:
COL Mike James

Heavy Systems Branch

- Abrams
- Bradley
- Stryker
- AMPV
- Large Caliber Weapons Systems
- Future Ammunition
- Vehicle Protection Systems
- Vehicle Sensors

Light Systems Branch

- A-GMV/ISV
- LRV
- MPF
- MRAP
- Medium Caliber Weapon Systems

BCT Mission Command Branch

- Mounted Computing Environment
- Joint Battle Command - Platform



MRD

Mission Essential Tasks



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- **Inform the FDD portfolio**
 - SPAR/POM/Deep Dives
- **Execute materiel aspects of ground combat maneuver platforms for legacy vehicles and selected participation in future systems**
 - Requirements
 - ECP Management
 - Test and Evaluation
- **Develop relevant ground maneuver vehicle sub-systems**
 - Vehicle Protection Suites
 - Sensors (vehicle based)
 - Lethality (Med/Large Cal)
 - Ammo (Med/Large Cal)
- **Develop Mounted BCT Mission Command capabilities**
 - Mounted Mission Command
 - Command Posts & Command Post Platforms MC COE interactions w/ MC
 - Interoperability with PNT/Network Transport/Cyber/EW/Cyber COE interactions w/MC



Mounted Requirements Organization Chart



Capabilities Development & Integration Directorate

All prefixes are 706

COL J. Michael James	Director	545-8355
John Miller	Deputy Director	626-1225
Heavy Systems		
LTC Alexis Rivera Espada	Chief, Heavy Systems	545-6575
Marty Plummer	Deputy Director, Heavy Systems	545-7738
MAJ David Hanna	Legacy Systems	545-7688
Mark Andrews	Future Capabilities	545-9217
Don Brophy	Legacy Systems	545-0243
Kent Evans	Ammo	545-9903
Guest Panel Member		
Mr. Perry Caskey	TCM SBCT	545-5958
SFC Josh Tyler	TCM ABCT	545-4070



Fleet Portfolio

Mounted Lethality, Mobility, & Protection



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Near/Mid: Abrams- Maintain current force capability while providing flexibility to transition to new vehicles when technology becomes relevant.



Near/Mid: Bradley- Modernization to restore SWaP-C to host future technological capabilities for Infantry, Cavalry, Engineers and Fire-Support.



Near: Armored Multi-Purpose Vehicle (AMPV)- Replaces the ABCT's M113 FoV to increase survivability and force protection; SWAP-C; and ability to incorporate future technologies and the Army's Network.



Near: Stryker- Improve freedom of movement and maneuver to facilitate effective mounted and dismounted operations by providing organic precision direct firepower.



Near/Mid/Far: Weapon/Ammo- Munitions with increased lethality at greater ranges, defilade targets, and ATGM teams



Mid/Far: Protection/Sensors- Preemptive, active, reactive, passive (or a combination thereof) vehicle defense capability. Increased vehicle lethality through the use of advanced optics and sensors.

Far: Future Systems Capabilities



Heavy Branch Priorities of Effort



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❑ ***M-CDID Lead:***

- Vehicle Protection Suite and Sensors
- Maneuver Vehicles – Capability Development

❑ ***Programs:***

- Abrams
- Bradley
- Stryker
- AMPV* (In coordination with the CFT)
- Medium/Large Caliber Weapons Systems
- Future Medium/Large Caliber Ammunition
- Vehicle Protection Suite
- IFLIR

❑ ***Current JCIDS Staffing Actions:***

- Stryker ECP
- 30mm Ammunition

❑ ***NGCV-CFT Support*:***

- OMFV
- OMT
- CDD-Reconfigurable Virtual Collective Trainer (STE CFT)



Heavy Branch Focus Areas



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- ❑ **Survivability / Force Protection:**
 - Active, Passive, Pre-emptive, and Reactive Protection Measures
 - Integrated and Coordinated Solutions (Synchronized)

- ❑ **Lethality:**
 - Increased effectiveness, precision, accuracy
 - Increased range and volume to achieve overmatch

- ❑ **Mobility:**
 - Tactical/Strategic Mobility
 - Innovative Operational Energy

- ❑ **Sustainability:**
 - Propulsion Systems
 - Innovative Operational Energy
 - Extended Independent Operations (MDO)



Heavy Branch Interests



Capabilities Development & Integration Directorate

- ❑ Semi autonomous/Autonomous Vehicle Control
- ❑ Automatic Target Recognition (ATR) / Auto Scan
- ❑ Semi-autonomous fire control
- ❑ Next Generation FLIR (CDR/GNR Sights)
- ❑ 360° Situational Awareness
- ❑ Signature Management (multi-spectrum)
- ❑ Full off platform sensor cueing / handover
- ❑ Hazard / Obstacle Detection and Defeat
- ❑ Cross Platform Pointer Laser/Receiver (CPPLR)
- ❑ Electric Propulsion
- ❑ Ammunition
 - 30/50 mm ammunition (Multi-Purpose Munitions/KE)
 - 105 Ammunition (AMP/KE/ELOS/BLOS)
 - 120 Ammunition (AMP/ELOS/BLOS)
- ❑ Integrated Active Protection System (APS)
 - Current APS Material Solution Examples**
 - Ground Degraded Visual Environment (gDVE)
 - Laser Warning Receiver (LWR)
 - Hostile Fire Detection and Location (HFDL)
 - Pre-shot Threat Detection (i.e., preemptive technology)
 - Signature Management (multi-spectrum)
 - Underbelly mine
 - Side IED Threats
 - Ballistic (Small Arms through Medium Caliber)
 - Munition/Blast Effects (fires, spall, overpressure, etc.)
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Questions Thank You

Heavy Team 1 on 1
11 1100-1500 APR 2019

