



PEO GCS Portfolio Overview

Combat Vehicle Conference

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Agenda

- Portfolio Overview
- Capability Portfolio Analysis Tool (CPAT)
- Commonality Potential
- Achieving Efficiencies Together
- Challenges & Opportunities



Program Executive Office Ground Combat Systems

4,000 Robotic Platforms



- (Army & Marine Corps)**
- XM1216 SUGV
 - M160
 - MARCbot
 - PackBot Family
 - TALON Family
 - Mini – EOB (SUGV-310)

3,894 Stryker Platforms



- Stryker Family of 10 vehicles

2,338 Abrams Tanks*



- Abrams Tank
- Bradley Fighting Vehicle
- Knight
- PIM/Paladin / FAASV
- M113
- M88 Recovery Vehicle



PEO GCS PORTFOLIO

**4,559 Bradley*
465 Knight**



969 Self-Propelled Howitzer Systems*



Ground Combat Vehicle



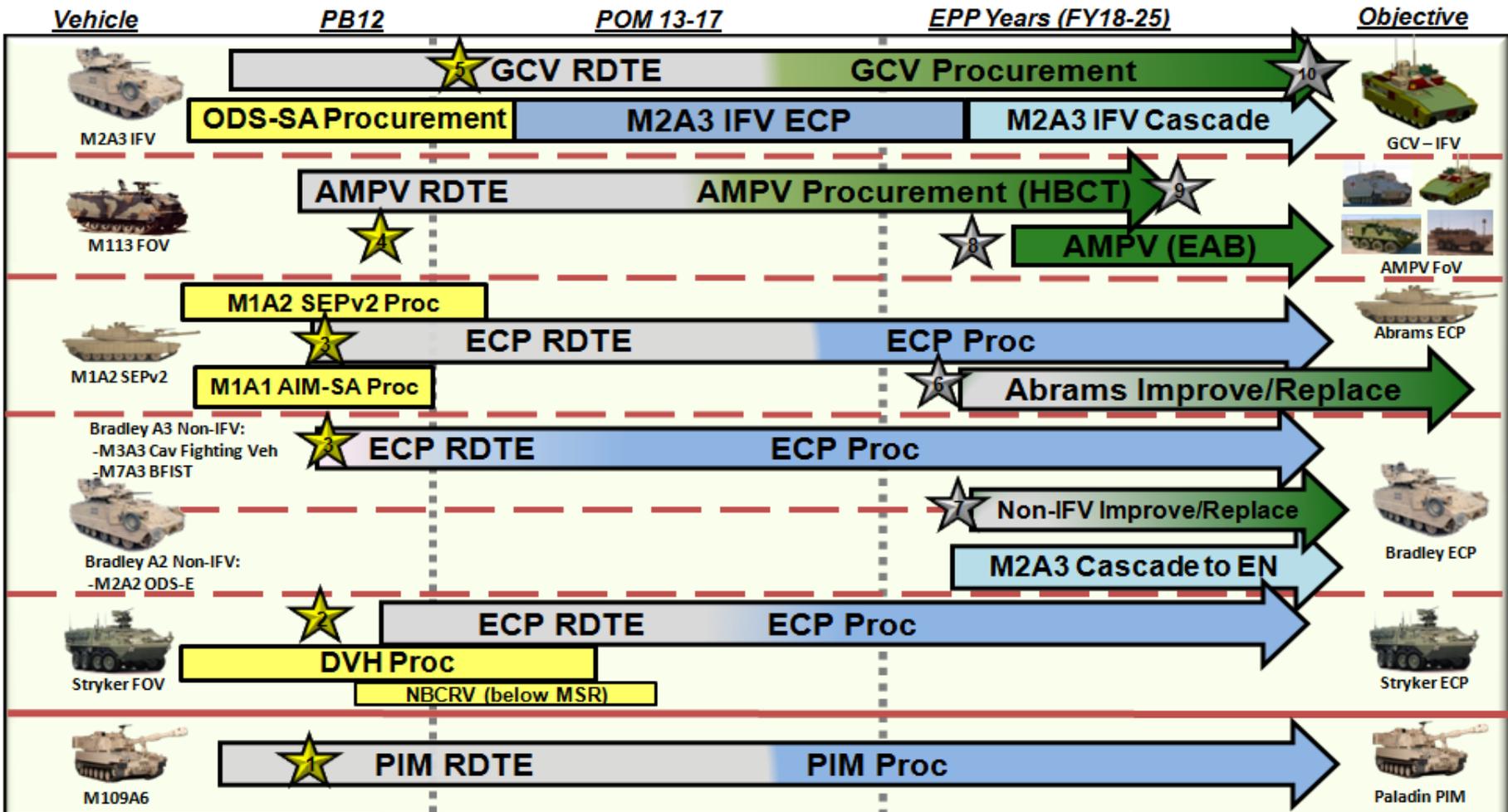
**3,901 M113 FoV*
1,056 M88 Recovery Vehicles***



* Does not include systems in long term storage



Combat Vehicle Modernization Strategy



- ★ PIM AoA results
- ★ M1 & M2 ECP CSB
- ★ GCV MS B
- ★ Non-IFV Improvement/Repl
- ★ AMPV Recap/Improvement
- ★ Stryker Improvement Plan and Scope
- ★ AMPV MS Entry Point
- ★ 6A-Abrams Improvement
- ★ Replace M113 - EAB
- ★ GCV Recap/Improve/Additional Msn Roles
- ★ 6B-M1A1 Upgrade/Repl

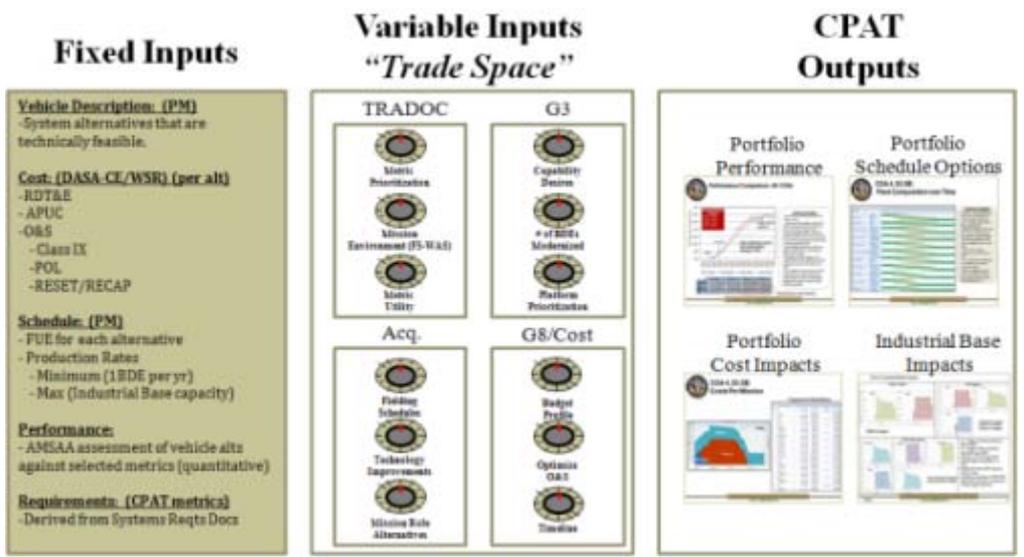


Capability Portfolio Analysis Tool (CPAT)

- **Purpose:** Establish an analytical approach to identify the optimum courses of action (Cost, Schedule, and Performance) for PEO GCS portfolio investment

- **Excursion Analysis Objectives:**

- Conduct analysis of current program alternatives
 - Updated performance and cost data
- Outline the impacts of Budget changes to the Combat Vehicle Modernization Strategy
 - Vary Budget based on HQDA G8 guidance
- Provide the analytical underpinnings that support an achievable and affordable Combat Vehicle Modernization Strategy
 - Define the holistic implications of various courses of action based on different budget profiles

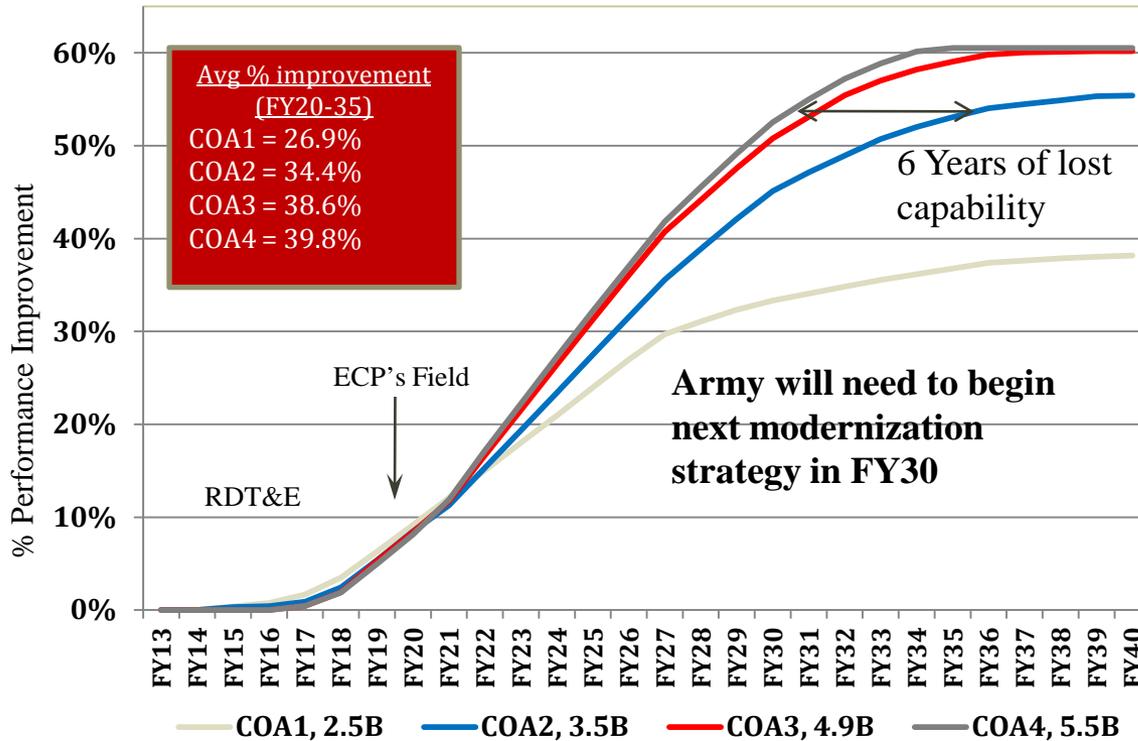


I believe it is a great tool to show leadership multiple COAs and the impacts/costs of various approaches. . . . This could be a game changer across multiple portfolios." GEN Chiarelli 30 AUG 11



CPAT Performance Comparison (Example)

Performance Vs. Time



	COA1, 2.5B	COA2, 3.5B	COA3, 4.9B	COA4, 5.5B
Acquisition	\$ 52,071,766,991	\$ 65,519,571,991	\$ 80,291,026,991	\$ 81,447,842,991
O&S	\$ 69,232,189,786	\$ 79,982,847,786	\$ 74,284,175,786	\$ 73,290,884,786
RDT&E	\$ 3,496,500,000	\$ 8,778,900,000	\$ 9,291,900,000	\$ 9,291,900,000
Total	\$ 124,800,456,777	\$ 154,281,319,777	\$ 163,867,102,777	\$ 164,030,627,777

Summary of Findings

- Maximum achievable performance is ~60% in 2040.
- Reduction of the budget to \$2.5B will result in losing Abrams Modernization and ~22% of Force Effectiveness.
- Reducing budget profiles extend the production plans and will force the Army to a minimum sustaining rate rather than a optimal production rate.
- Lower budget profiles drive O&S cost higher because they are maintaining older systems longer.
- Creating a common platform (GCV chassis) that provides significant growth and protection drove the model in its COAs
- Key capability characteristics (Net, FP, and Growth) are achievable through modernization in spite of constricting budgets when able to conduct trades across the portfolio.

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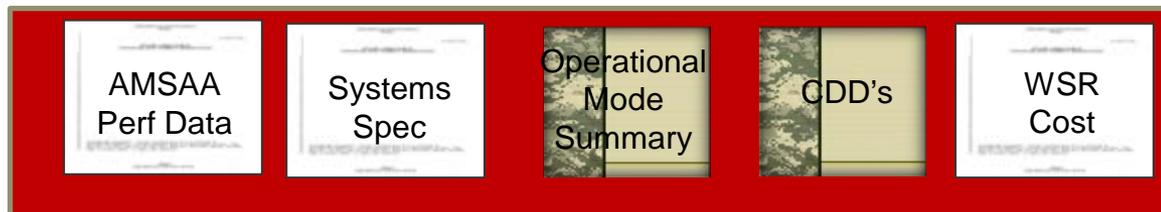
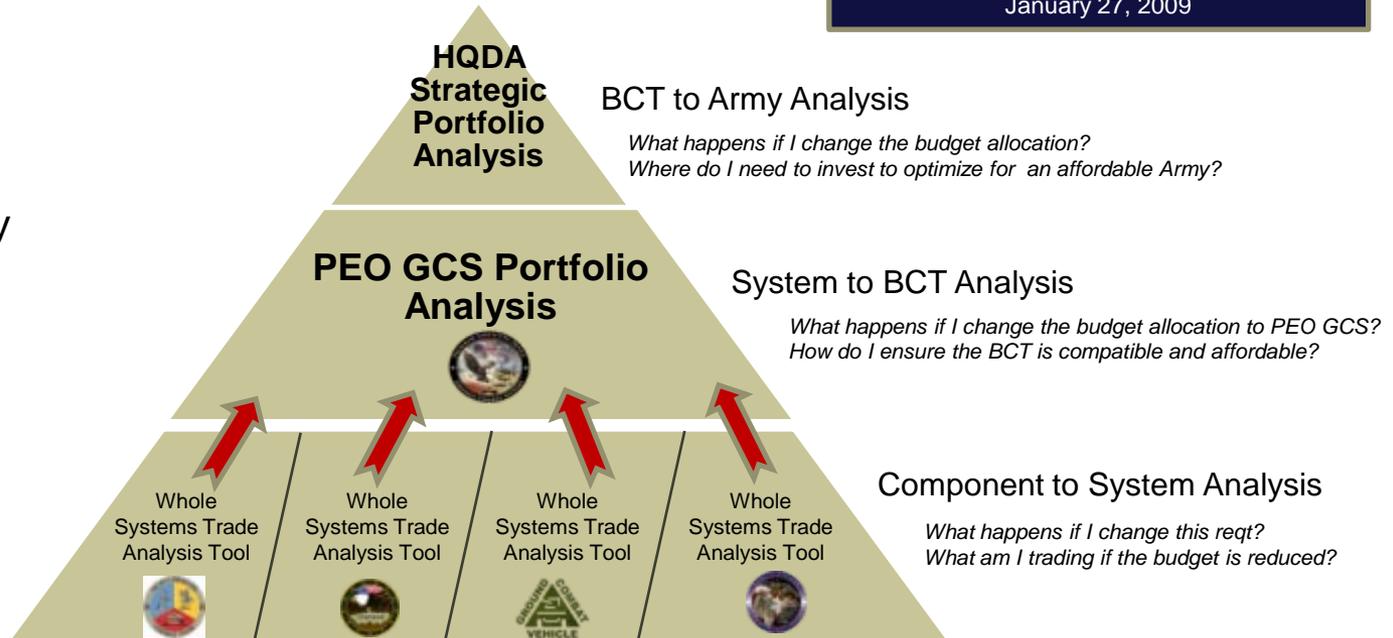
Portfolio Analysis

Motivation - SECDEF Priority

"Chief among institutional challenges facing the Department is acquisition...I feel that many programs that cost more than anticipated are built on an inadequate initial foundation."

Secretary of Defense Robert M. Gates
January 27, 2009

- Common Architecture
- Scalable
- Defendable decision analysis methodology
- Quantifiable budget implications
- Balancing Cost, Schedule and Performance at each echelon



Common Data Picture

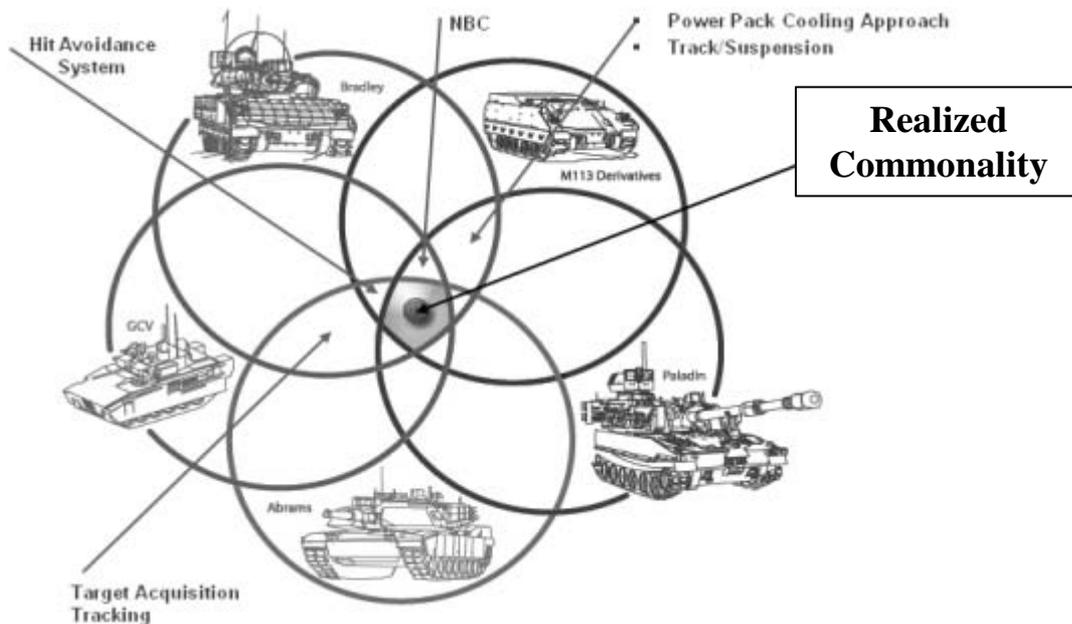
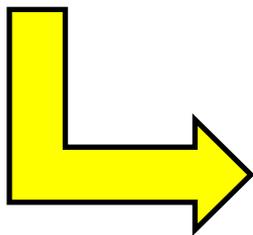
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Commonality Potential

Current Context

- Almost identical functional architectures across major ground combat systems (e.g. Victory & COE)
- Industry/OEMs moving away from vertical integration towards selection of suppliers based on best value
- COTS provides opportunities for commonality, cost savings, and tech refresh
- Declining budgets



Future Benefits of Commonality

- Reduce lifecycle cost and improve efficiency through:
 - Economies of scale
 - Increased competition
 - Streamlined logistics supply chain
 - Improved ease of integration for upgrades
 - Obsolescence mitigation
- Make materiel solutions more affordable and adaptable
- Operational impact for the Warfighter

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Achieving Commonality

- Acquisition Approach
 - Explicit Commonality directives in Acquisition contracts
 - Government pays for Commonality analysis as part of performance spec
 - Government reserves right to direct common standard or component
- System Engineering
 - On going PEO led system engineering focused on coordinating standards across fleet
 - Approved standards will be directed if appropriate
 - PEO led Configuration Control Board will function as oversight on system trades, and major materiel solutions for obsolescence and new programs
- Business Case Development
 - Government internal analysis on a case by case basis



Achieving Efficiencies Together

- Current economic and budget environment demands new ways to drive down costs in programs
- Affordability is now (and will remain) the major driver in program decisions
- Dr Carter's Better Buying Power initiatives fully implemented over past year and remain guide post to drive affordability and control cost growth
- We need your help to determine new ideas, as well as leverage existing programs (i.e. Value Engineering Change Proposals) to reduce cost and improve quality
- Our focus is to drive down cost, not profit...we will incentivize to find “best value” and look for Industry’s help to get the most for every taxpayer dollar



Challenges & Opportunities

- Modernizing the ground combat vehicle portfolio in an environment of fiscal austerity
 - Must be mindful of cost and providing best value...RFPs must incentivize behavior
- Common Architecture, standards and interfaces
 - Open/Non Proprietary – minimizes “not invented here” syndrome
 - Weighted in multiple RFPs to facilitate efficiencies at 2nd & 3rd Tier Vendor level
 - Encourages lower tier investment due to common application across a larger base
 - Potentially increases vendor base and interest from nontraditional suppliers
 - Facilitates innovation and investment (iPhone model)
- Formation/Fleet Trades
 - Synchronizing requirements across a formation to drive common solutions (i.e. optics & sights having same range/detection/recognition)
 - Facilitates quantity buys if extended to preferred parts or common specifications . . .
 - Opportunity is now – this window will not happen again

We need your insights & support to turn this into reality



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Achieving Commonality

- Achieved through:
 - Cross-platform systems engineering and defining opportunities for common functional and physical requirements and architectures
 - Development and base lining of functional and physical architecture requirements for PEO-wide use (when financially advantageous to do so)
 - Executing proof-of-principle demonstrations of common architecture requirements on multiple PEO platforms
 - Common materiel solution/ component options developed through application of sound technical and business cases analyses and validated using proof-of-principle demonstrations
- Infrastructure to support commonality includes:
 - New collaboration mechanisms (Common Operating Environment, VICTORY)
 - Ensure cross collaboration with other PEO and industry partners through the use of IPTs and working groups
- Implemented when specifications for common materiel solutions can be competed and integrated across ground domain systems



PEO GCS Modernization Schedule (Pre Decisional)

	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
 GCV IFV	 MS A		 MS B				 MS C			 GCV IFV FUE	
 Abrams		 ECP Contract Award	 PDR	 CDR		 Production Contract Award				 Abrams ECP FUE	
 Bradley		 EMD Contract Award	 PDR	 CDR		 Production Contract Award	 Bradley ECP FUE				
 AMPV		 MDD		 MS B			 MS C	 AMPV FUE			
 Stryker		 NBCRV FRP									
 PIM	 IPR DAB		 MS C				 PIM FUE				
 SUGV			 MS C/FRP								



PEO GCS Mission

Execute lifecycle management of the world's best ground combat systems in a collaborative learning environment by developing, acquiring and supporting modernized and affordable systems with common integrated capabilities, always focused on the needs of the Joint Warfighter

PEO GCS Vision

A highly collaborative organization of Acquisition professionals that leverages the unique expertise of critical partners to deliver the most adaptable, affordable and integrated unit capabilities to the Joint Warfighter