



Advanced Planning Briefing to Industry

Program Executive Office
Ground Combat Systems

Acquisition Excellence

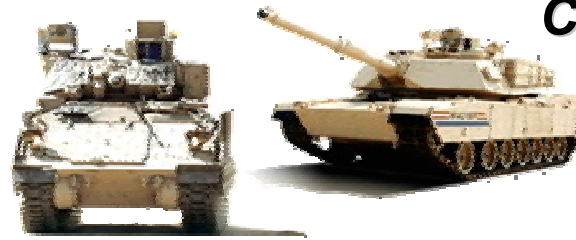
Mr. Kevin Fahey
Program Executive Officer,
Ground Combat Systems

October 15, 2004



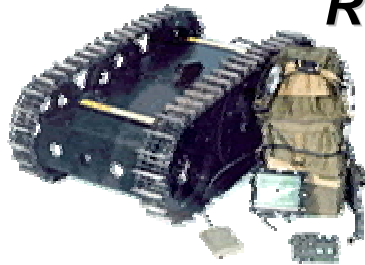
PEO GCS Programs

Combat Systems



- Abrams Tank
- Bradley Fighting Vehicle
- Paladin 155mm SP Howitzer
- M113 APC

Robotic Systems



- UA Ground Systems
- Standardized Robotic System
- Gladiator
- M60 Panther
- Miniflail
- Man Packable
- MV – 4 Flail



Stryker Brigade Combat Team

- Mobile Gun System
- Infantry Carrier Vehicle
- Medical Evacuation Vehicle
- Reconnaissance Vehicle
- Commander's Vehicle
- Engineer Squad Vehicle
- NBC Reconnaissance Vehicle
- Mortar Carrier
- Anti-tank Guided Missile
- Fire Support Vehicle

LW155 System

- M777 Howitzer
- Towed Artillery Digitization (TAD)



PM Combat Systems





Abrams 1-N List

- Safety Modifications
- Engine Improvement
- Loaders and TC Weapons Station Improvements
- Survivability Improvements for Contingencies
- Under Armor Auxiliary Power
- 2d Generation FLIR
- Driver's Enhanced Vision Capability
- Blue Force Tracking/FBCB2
- AIM/Recap
- Armor Upgrades
- Active Protection
- Electronic Obsolescence
- Tactical Voice Recognition





Bradley 1-N List



- 2d Generation FLIR on all platforms
- LRU Availability and Performance
- Survivability Upgrades
- Driver's Enhanced Vision Capability/ Hull Diagnostics
- BIM/Recap to Support Modularity Demands
- Spiral Technology Integration
- FBCB2/ BFT Modifications
- Transmission Improvement
- Training Support / Embedded Training
- Electronic Obsolescence





Combat Systems Shortfalls/Challenges & Opportunities for Industry



- Situational Awareness
 - Integration of New Technologies to achieve interoperability with Future Combat System
 - Mounted Battle Command on the Move (MBCOTM)
 - Helmet Mounted Cordless Communications
- Survivability
 - Vehicle Integrated Defense Systems/Active Protection Systems
 - Loader and TC Weapon Station Improvements
 - Armor improvements/Active Armor
- Lethality
 - Muzzle Velocity System
 - Semi-automatic Loader/Laser Ignition System
 - Multi function Laser Range finder
 - Target Management System





Combat Systems Shortfalls/Challenges & Opportunities for Industry



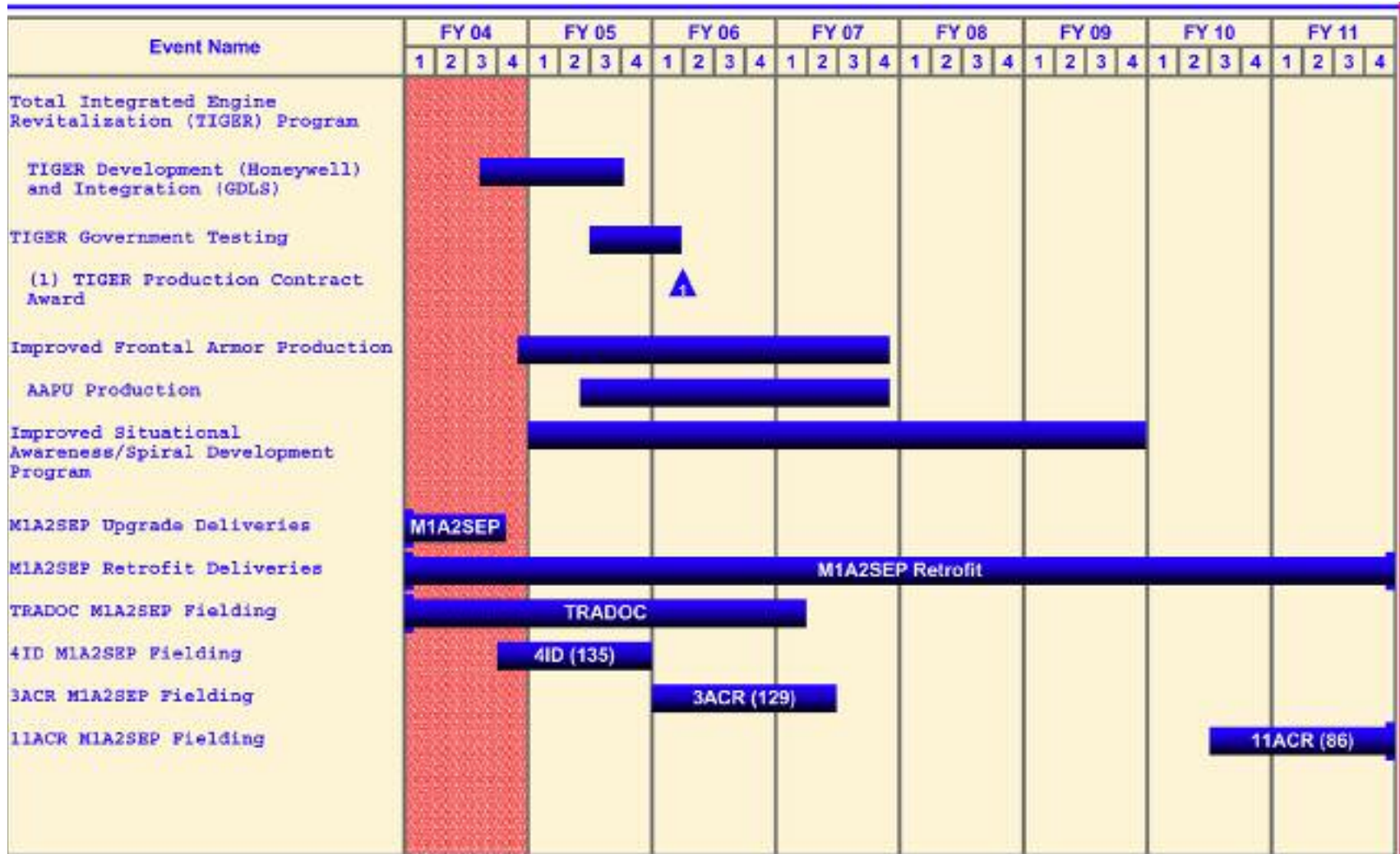
- Mobility
 - Aux Power Unit (APU)
 - Power Pack Durability Improvements
 - Suspension Durability Improvements
 - Hybrid Electric Drive
 - Improved Driver's Viewer
- Sustainment
 - Recapitalization
 - Reset combat equipment returning from OIF
 - Maintaining Vehicles that are not deployed with the troops (Stay behind Maintenance)
 - Embedded Diagnostics/Prognostics
 - Embedded Training
 - Electronics Obsolescence





Abrams Program Schedule

Program Executive Office
Ground Combat Systems

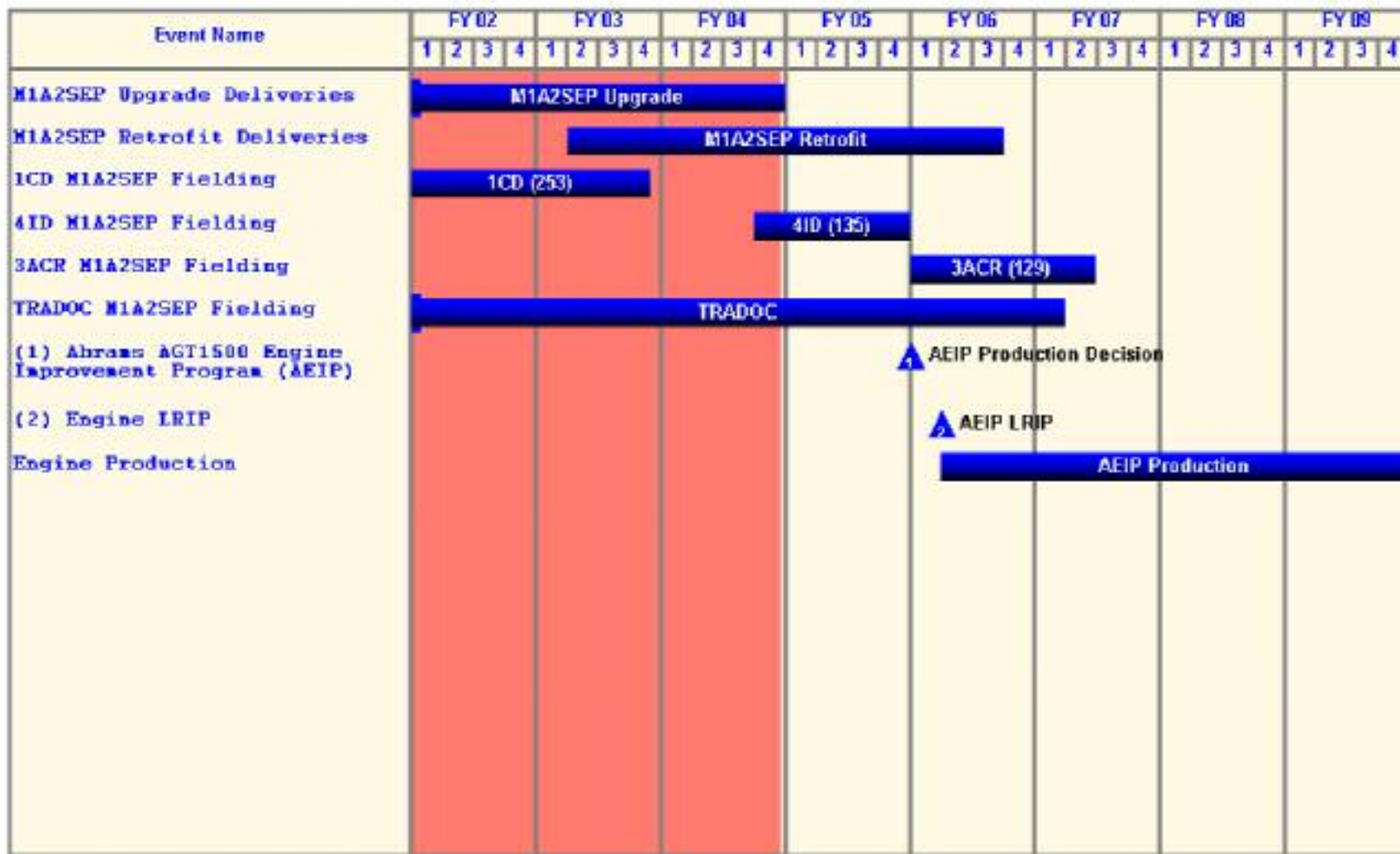


Acquisition Excellence



Bradley Program Schedule

Program Executive Office
Ground Combat Systems



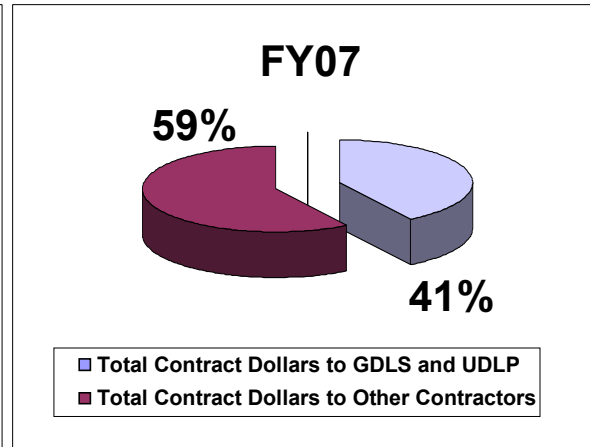
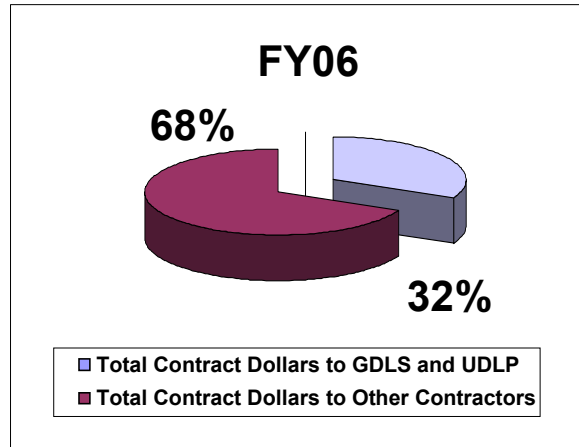
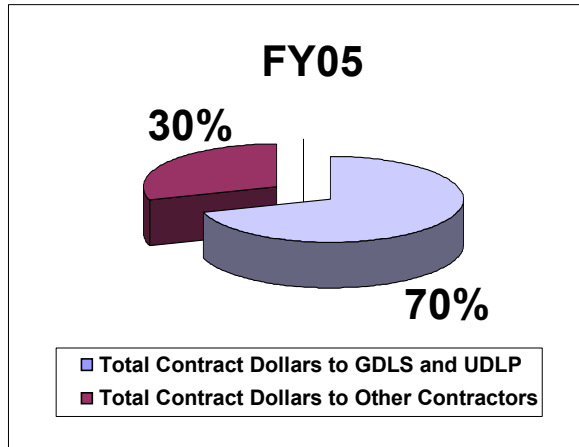
Acquisition Excellence



Combat Systems Contractor Dollars FY05 – FY07



Program Executive Office
Ground Combat Systems



DOLLARS IN M					
	Total Contract Dollars	Total Contract Dollars to go to GDLS & UDLP	Percent of Contract Dollars for GDLS & UDLP	Total Contract Dollars to go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY 05	600.6	422.5	70%	178.9	30%
FY 06	599.4	194	32%	405.4	68%
FY 07	529.7	218.8	41%	310.9	59%

Acquisition Excellence

PM Stryker Brigade Combat Team





Stryker 1-N List

(In alphabetical order)

14.5 MIL Armor Upgrade Around Side Escape Hatch & the Power Entry Panel

4 IAV Block Upgrade-Embedded Diagnostics

81mm Ammo Rack Redesign

Add SAE 75 W90 to Transfer Case, Deferential Case, Planetary Wheel Drive, and Winch

Air Conditioner

ATGM ET Cards

C4ISR IC3 Working Group Support

Central Tire Inflation System (CTIS) Upgrade

Common Heater Installation Revision

CV MBCOTM Briefing

ESV Harness W569 Change

ESV LMS Tab Mod

ESV Smart Harness Technology

ESV Teleops Trade Study

ESV Tire Inflation Hose

Existing AFES Systems Study

FH MUX Elimination ICV, FSV, NBCRV

ICV Common/MEV 2.5 lb Fire Extinguisher

Integration RWS CTC



Stryker 1-N List

(In alphabetical order)

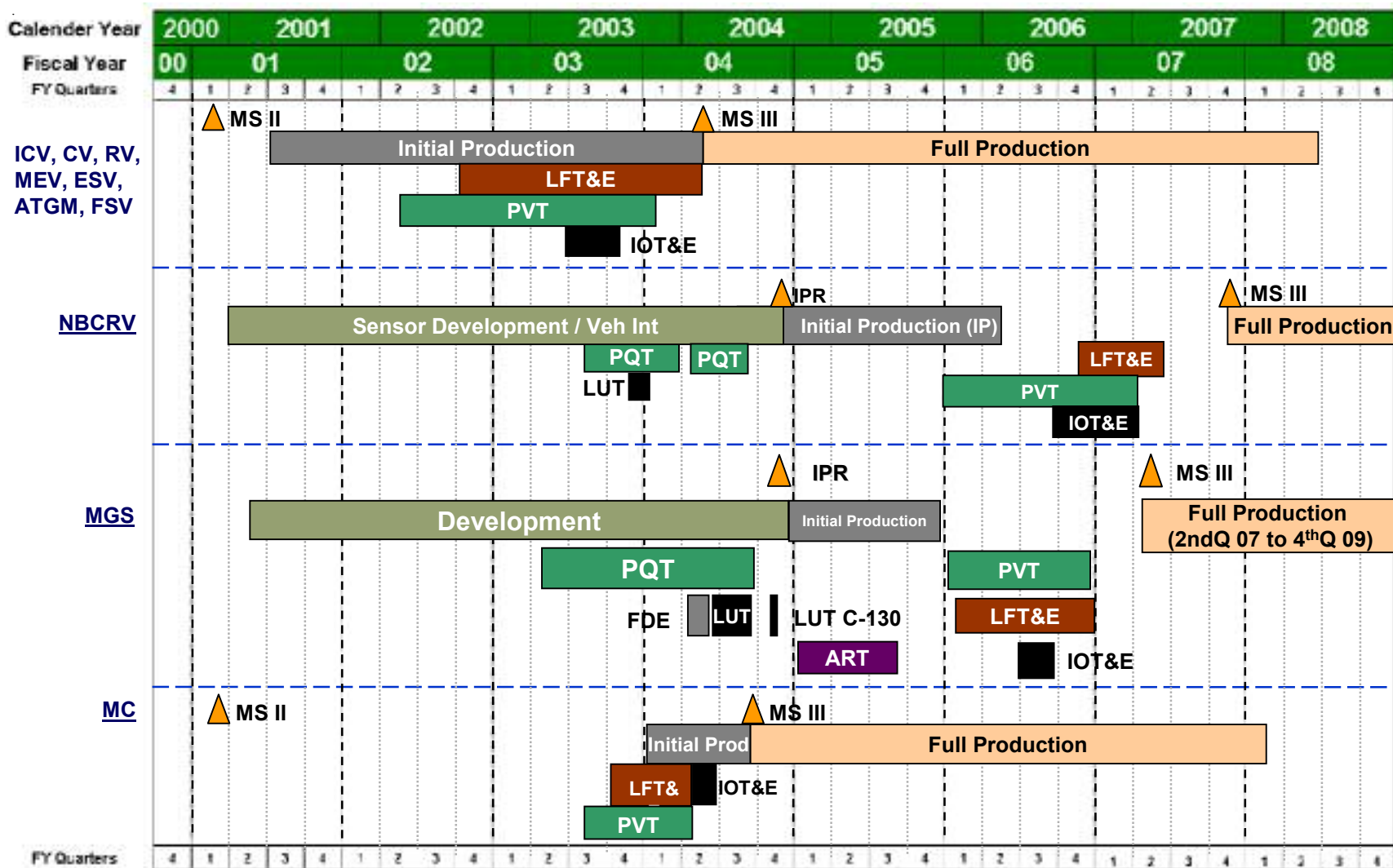
- LMS Dispenser (Cold Weather)
- Maintain MCB Weight Tapes
- MC 60 mm Ammo Racks / WP
- MC 81mm Ammo Racks / Monopacks
- MC Abrasion to MFCS Cable between Vehicle and RMS
- MC Ammo Storage System
- MC ARDEC Adjustable M240 Mount
- MC Crew Boresight Feature on RMS
- MC Extend Loader's Step
- MC Extended Towbar Stowage Bracket
- MC Mortar System Range Envelope
- MC Squad Leader Hatch
- MC System Elevation Capability
- MC VC Seat
- MCV Gunner & Assistant Gunner Hand Holds
- MCV-B Seat Improvement
- MEV AFES Study
- PEL Redesign/reroute the MSD harnesses on SMP MR and AMP
- PLGR/EPM Integration vs. DGR/EPM
- RV-FSV Cupola Protection



Stryker Program Schedule

August 04

Program Executive Office
Ground Combat Systems

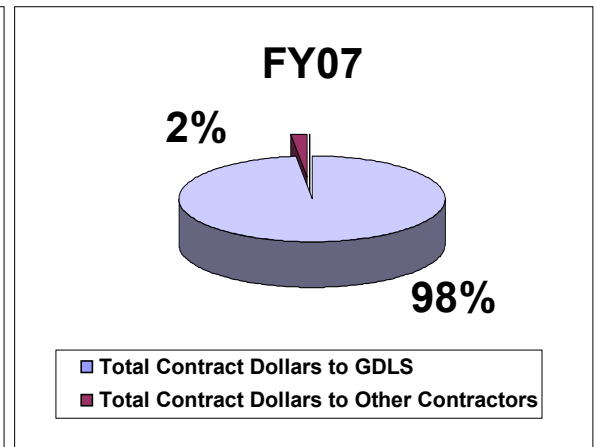
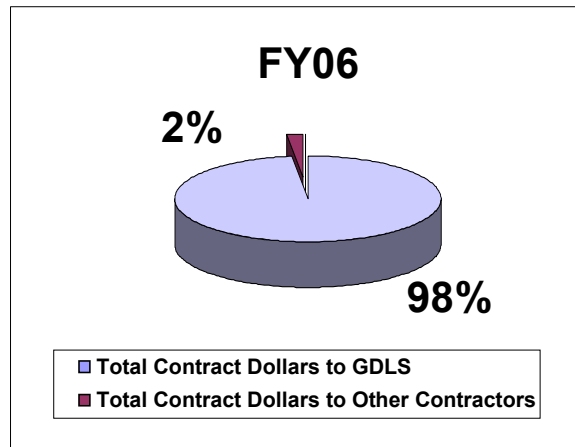
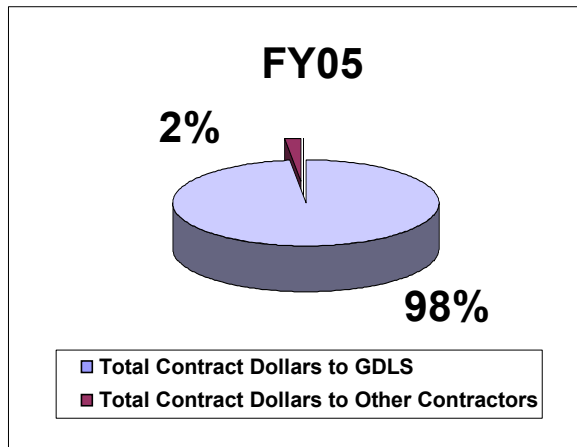


Acquisition Excellence



Stryker Contractor Dollars FY05 – FY07

Program Executive Office
Ground Combat Systems



DOLLARS IN M					
	Total Contract Dollars	Total Contract Dollars to go to GDLS	Percent of Contract Dollars for GDLS	Total Contract Dollars to go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY 05	948.49	932.09	98%	16.40	2%
FY 06	970.71	947.59	98%	23.13	2%
FY 07	824.49	805.34	98%	19.15	2%

Note: Includes OMA, RDTE, WTCV.

Does not include GFE/GFM.

Acquisition Excellence

JPM LW155





JLW155 1-N List



- Block II Software
- Wireless Displays
- Advanced Power Technology
- Towed Artillery Training Device
- Additional Improved Position and Azimuth Determining Systems for Army Modularity
- Additional M119's for Modularity
- Digital Fire Control for M119 Howitzer
- Enhanced Forced Entry Cannon



JLW155 Systems

Shortfalls, Challenges & Opportunities for Industry



- BAE SYSTEMS is the Prime Contractor for the LW155 System
 - LRIP Managed From Barrow-In-Furness, UK
 - Full-Rate Production To Be Managed From Hattiesburg, MS
 - Value Chain Was Competitively Selected
 - Production Underway
- General Dynamics ATP (Burlington, VT) is Digital Fire Control Supplier
- Cannon is GFE
- Full & Open Competition for Primer Feed Mechanism in FY05
- Full & Open Competition for New Equipment Training Support in FY05-10
- Optical Fire Control for M119



105mm

Towed Artillery



- **Modularity increasing requirement over 200 systems**
 - Restart M119A2 howitzer production
 - Restart M119A2 Optical Fire Control production
 - Bidders conference planned 14 Oct 04 @ Rock Island Arsenal
- **Investigating Spiral Development**
 - Short Term improvements for entry into production
 - Mid-Term improvements – Digital Fire Control
 - Long Term – Enhanced Forced Entry Cannon



JLW 155 Program Schedule

Program Executive Office
Ground Combat Systems

Event Name	FY 04				FY 05				FY 06				FY 07				FY 08				FY 09				FY 10				FY 11			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DT&E	■ DVT/Tech Tests																															
OT&E	■ Arctic OT&E (M777E1)																															
OT&E	■ Joint OT&E (M777E1)																															
(1) MS C					▲ Digital Fire Control MS C																											
(2) FRP Decision					▲ Joint Full-Rate Production Decision																											
Fielding									■ 2/25 ID (SBCT #5)																							
(3) IOC									▲ M777A1 IOC (Army)																							
Fielding													■ 2 ACR (SBCT#4)																			
Fielding													■ 3/2 ID (SBCT#1)																			
Fielding													■ 1/25 ID (SBCT#2)																			
Fielding													■ 172nd SBCT (#3)																			
Fielding													■ PA ARNG (SBCT#6)																			
Fielding													■ 18 FABA-321 (ABN)																			
Fielding													■ 18 FABA-377 FA (ABN)																			
Fielding													■ NG GS BN (TBD)																			
Fielding													■ NG GS BN (TBD)																			
Towed Artillery Digitization (Block II)																	■ Fire Control Software Upgrades															

Acquisition Excellence



JLW155 System

M777 and TAD



Program Executive Office
Ground Combat Systems

M777 Howitzer



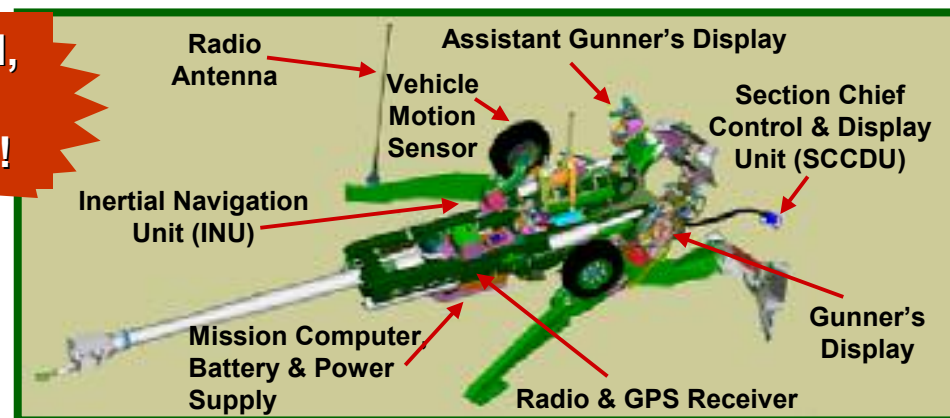
**Harder to Find,
Harder to Hit,
Harder to Kill!!!**

- Lightweight High-Strength Titanium
- Improved Strategic Deployment
- Improved Ground Mobility
- Improved Survivability

Towed Artillery Digitization (TAD)

- Flexible Operations
- No Survey

- Improved Accuracy
- More Responsive



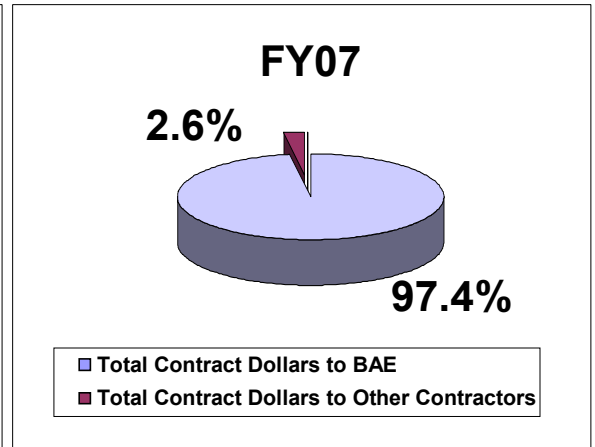
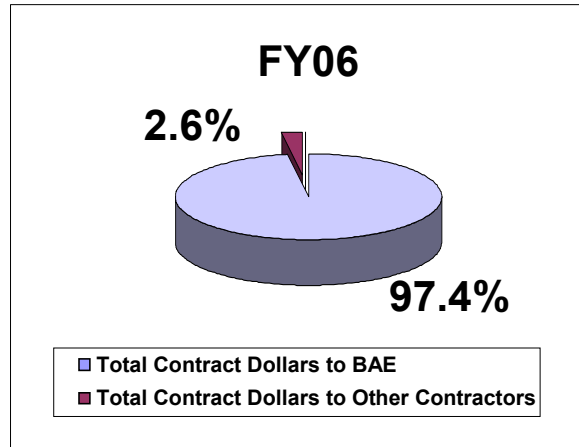
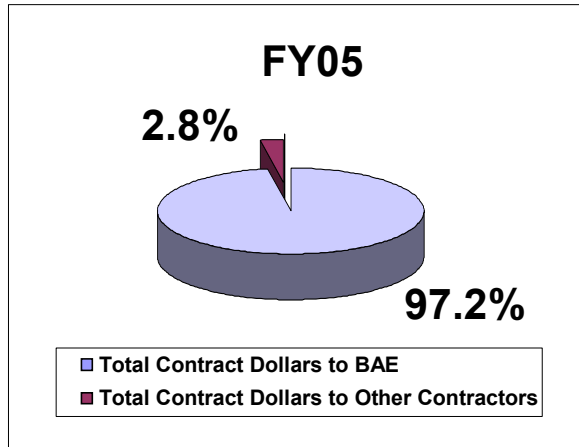
Acquisition Excellence



JLW155 Contractor Dollars FY05 – FY07



Program Executive Office
Ground Combat Systems



DOLLARS IN M					
	Total Contract Dollars	Total Contract Dollars to go to BAE	Percent of Contract Dollars to go to BAE	Total Contract Dollars to go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY 05	167.5	162.8	97.2%	4.7	2.8%
FY 06	173.7	169.1	97.4%	4.6	2.6%
FY 07	159.5	155.3	97.4%	4.2	2.6%
FY 08	259.8	252.5	97.1%	7.3	2.9%

Acquisition Excellence



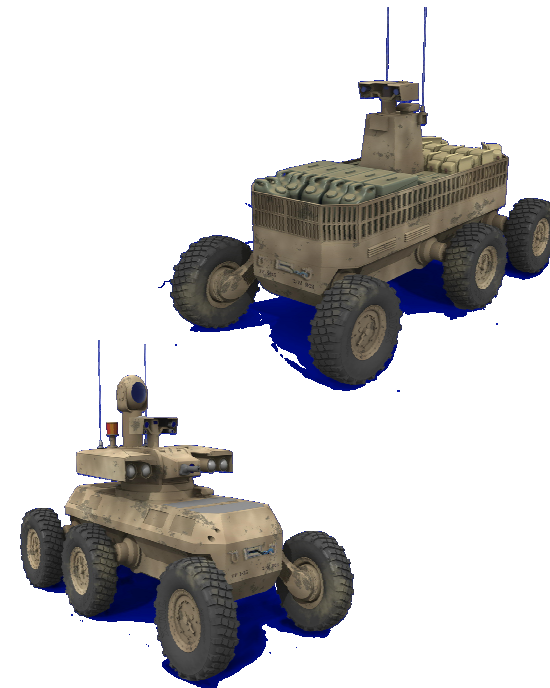
JPO Robotic Systems (RS)





JPO Robotic Systems (RS)

Program Executive Office
Ground Combat Systems



Acquisition Excellence



1 – N List of JPM RS Capabilities

- Autonomous Mobility Performance
- UGV Reliability / Availability
- Anti-Tamper Capability
- Communication Bandwidth
- Semi-Autonomy in Environments with Moving Persons and Vehicles
- Non-Active (Stereo) Perception
- Autonomous Navigation in Adverse Weather
- Autonomous Navigation Capability against Negative Obstacles
- Autonomous Navigation System Weight and Space Requirements
- Systems Weight Growth
- Power Requirements in SUGV



JPM RS Programs (-FCS)

Program Executive Office
Ground Combat Systems

USMC



Gladiator

- 800 – 1,000 Lbs
- Lethal / Non-lethal Direct Fire
- RSTA
- NBC Detection



Assault Breaching Vehicle (ABV)

- M1 Chassis
- Mine Plow, Lane Marking
- MICLIC
- CRS Teleoperation Capability

OSD (RDT&E Funded Contracts)

- Gladiator SDD
- ABV CRS SDD
- UGV ROP SDD

Army Non-FCS



Common Robotic System (CRS)

- Teleoperation
- 80% common



RCSS Contingency

- 3,000 – 5,000 Lbs
- AP Mine Neutralization
- Wire Obstacle Breaching
- Obscurant Dispensing



T3



D7G



DEUCE



UGV ROP

Acquisition Excellence

2004 TACOM APBI



**Government and Industry Unite
to Support Our Forces**