PEO-GCS Website: www.peogcs.army.mil

## PEO-GCS Managed Systems Current Force

# Advanced Planning Briefing to Industry

Today and Tomorrow

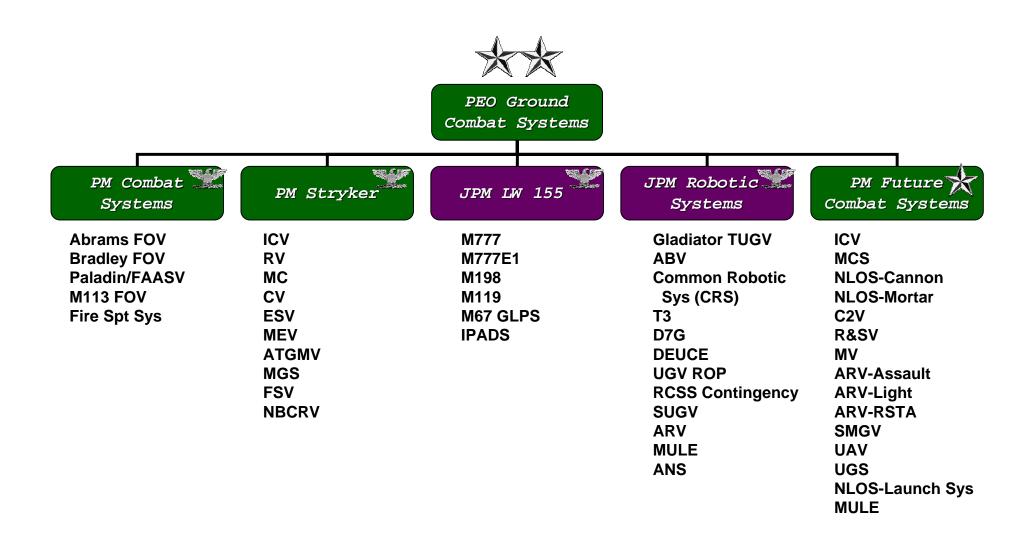
Mr. Albert Puzzuoli
Deputy Program Executive Officer, Ground Combat Systems
October 30, 2003



### This is not a Blank Chart.



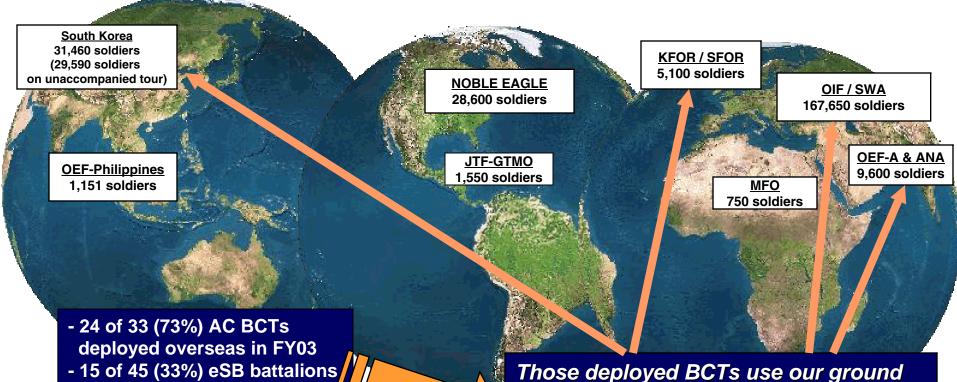
### **PEO-GCS Organization**





### **Army Global Commitments**

368,900 soldiers over-seas in 120 countries (approx. 215,000 on unaccompanied tours)



Acronym Key:

JTF GTMO – Joint Task Force, Guantanamo Bay KFOR/SFOR – Kosovo Force/Stabilization Force (Bosnia) MFO – Multinational Force & Observers Force, Sinai Noble Eagle – Homeland Security Mission OEF – Operation Enduring Freedom OIF – Operation Iraqi Freedom

deployed overseas in FY03

Those deployed BCTs use our ground combat equipment—Abrams, Bradley variants of all kinds, M113 FOV, Paladins, Strykers, UGVs, towed howitzers, Knights, etc.



## How good are our systems? Some data from Iraq

#### Abrams

- Protection
  - + Front armor (turret and hull) continues to provide maximum protection.
  - ★ Left and right non-ballistic skirts repeatedly penetrated, but no KIAs.

### Firepower and Target Acquisition

- + Fighting in the cities and towns made crew-served machine guns the choice for most engagements.
- → MPAT was main gun round of choice, followed by HEAT

#### Automotive

- → Outstanding mobility—key enabler contributing to speed and length of attack
- → High OPTEMPO in very harsh environment

### Bradley

#### Protection

- → Turret and hull armor performed better than expected
- ★ Enemy repeatedly attacked from the flank

### Firepower and Target Acquisition

- → Soldiers continue to praise turret responsiveness and handling
- → M919 Depleted Uranium round provides excellent punch and penetration capability
- → Fighting in cities and towns made 25mm and 7.62mm the weapons of choice

#### Automotive

- → Outstanding mobility,-key enabler contributing to speed and length of attack
- → High OPTEMPO—1-10 Cav, 4ID, traveled 1250 miles in the first 6 week in theater. Most Bradley Bns exceed DA annual OPTEMPO levels every 5 to 6 weeks

FSR Support: Exceptional support from all contractors supporting Abrams and Bradley in theater (includes GDLS, UDLP, Raytheon, DRS). FSRs are totally embedded in the units, live under the same conditions as soldiers. Soldiers respect the value that FSRs bring to the table.



PEO-GCS Managed Systems





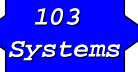








PM Combat Sys			
Abrams	M1	Paladin	M109A6
	M1IP		M992A2 FAASV
	M1A1	M113 FOV	M113
	M1A1 HA		M113A1
	M1A1 HA Common		M113A2
	M1A1 D		M113A3
	M1A1 AIM		M113A3 + ESV
	M1A2		M113A4 AMEV
	M1A2 SEP		M58 Smoke Gen Carrier
	M104 Wolverine		M106A2 107mm Mortar Car
	Egypt Co-production M1A1		M125 81mm Mortar Car
	KSA M1A2		M548A1
	Kuwaiti M1A2		M548A3
Bradley FOV	M2A0		M577A2 CP
	M2A0 AMEV		M577A3 CP
	M2A1		M730A2 Chaparrel Car
	M2A2		M901A1 ITV
	M2A2 ODS		M901A3 ITV
	M2A3		M981 FISTV
	M2A3 + ESV		M981A3 FISTV
	M2A3 BFIST		M1059A3 Smoke Gen Car
	M3A0		M1064 120mm Mortar Car
	M3A1		M1064A3 120mm Mortar Car
	M3A2		M1068 SICPS
	M3A2 ODS		M1068A3 SICPS
	M3A3		XM1108 Universal Car
	M2 Linebacker		OSV
	M7 BFIST	JPM Robotic Sys	Gladiator TUGV
	M8 AGS	or an including cyc	Assault Breaching Veh (ABV)
	C2V		Common Robotic Sys (CRS)
	Battle Command Veh (BCV)		T3
	M993A1 MLRS Carrier		D7G
	M707 Knight (HMMWV)		DEUCE
	initial ranges (commerce)		UGV ROP
PM BCT (Stryker)	M1126 ICV		RCSS Contingency
i iii Bo'i (otayitoi)	M1127 RV		Small Man-packable GV
	M1129 MC		MULE
	M1130 CV		Armed Robotic Vehicle (ARV)
	M1132 ESV		Autonomous Nav Sys (ANS)
	M1133 MEV	PM LW155	M777 155mm How
	M1134 ATGMV	1 111 217 100	M777E1 TAD
	XM1128 MGS		M198 155mm Med Towed How
	XM1131 FSV		M119 105mm Light Towed How
	XM1135 NBCRV		M67 GLPS
	AWITIOS INDUITY		IPADS
PM FCS			11 / 100
Manned	ICV	Unmanned	ARV-Assault
Wanneu	MCS	Unmanned	ARV-Light
	NLOS-Cannon		ARV-Light ARV-RSTA
	NLOS-Cannon NLOS-Mortar		
	C2V		Small Man-packable GV
	1 -		UAV (Classes I-IV)
	R&SV		Unattended Gnd Sensors (UGS)
	MV		NLOS Launch System
			MULE













## PM Combat Systems







### Combat Systems 1-N List



- **▲ 2d Generation FLIR**
- Driver's Enhanced Vision Capability
- Blue Force Tracking/FBCB2
- ▲ AIM/Recap
- Engine Improvement
- Embedded Training
- Armor Upgrades
- Active Protection
- Electronic Obsolescence
- Tactical Voice Recognition
- **▲** Training Ammo







## Combat Systems Shortfalls/Challenges & Opportunities for Industry



- Fielding 3ACR
- Fleet Recapitalization/CVE Analysis
- Abrams Engine Improvement Program
- Alternative Aux Power Unit (APU)
- Hybrid Electric Drive
- Mounted Battle Command on the Move (MBCOTM)
- Active Protection Systems
- Helmet Mounted Cordless Communications
- Embedded Diagnostics/Prognostics
- Embedded Training
- Electronics Obsolescence
- Integration of New Technologies from FCS
- Sale/Upgrade/Disposal of Long Supply and Excessed Fleets
- Muzzle Velocity System
- Semi-automatic Loader/Laser Ignition System
- Suspension Durability Improvements
- **▲ FBCB2/Blue Force Tracking Situational Awareness**
- OIF Reset

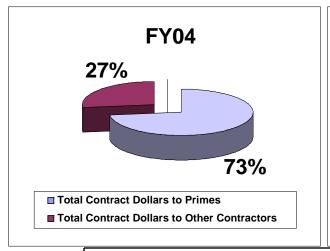


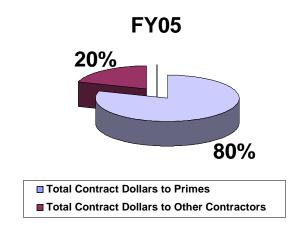


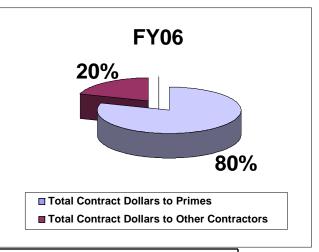


# Combat Systems Contractor Dollars FY04 – FY06









Dollars in M					
	Total Contract Dollars	Total Contract Dollars to go to Prime	Percent of Contract Dollars for Prime	Total Contract Dollars to go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY 04	937.1	682.0	73	255.1	27
FY 05	523.6	418.3	80	105.3	20
FY 06	470.1	374.8	80	95.3	20



## PM Stryker

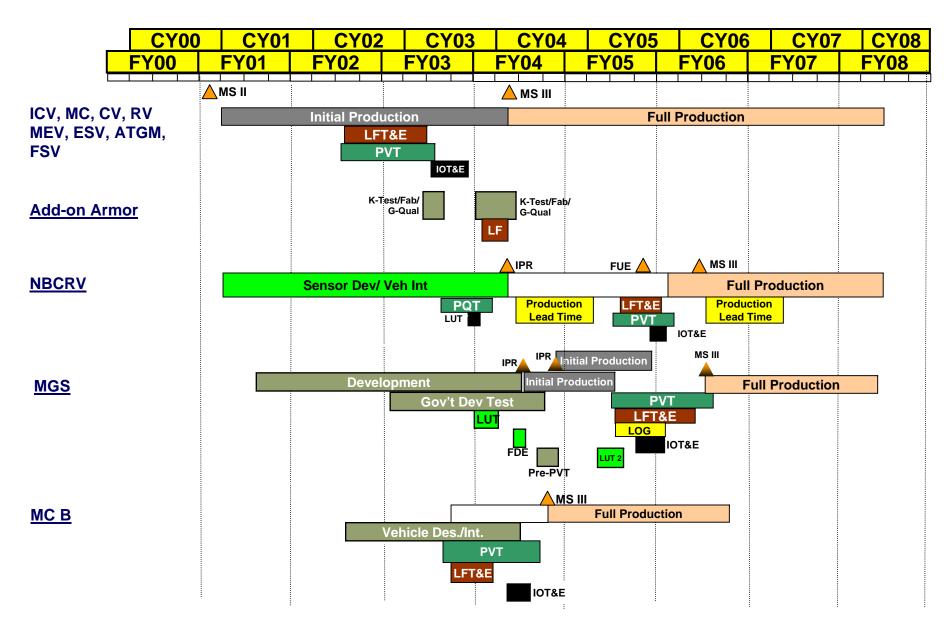






## Stryker Program Schedule Overview

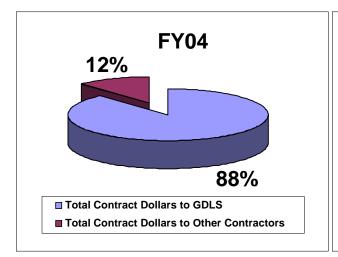


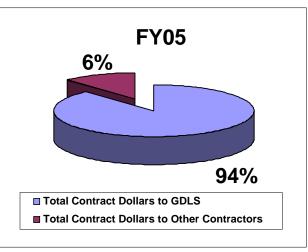


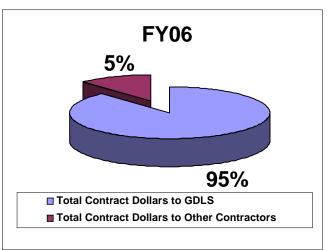


## Stryker Contractor Dollars FY04 – FY06









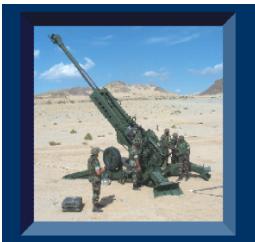
Dollars in M					
	Total Contract Dollars	Total Contract Dollars to go to GD	Percent of Contract Dollars for GD	Total Contract Dollars to go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY 04	779.193	686.305	88.08	92.888	11.92
FY 05	708.035	664.421	93.84	43.614	6.16
FY 06	865.126	822.712	95.10	42.414	4.90

Note: Includes GFM



### **JPM LW155**

















## LW155 System M777 and TAD



### M777 Howitzer





■ Improved Strategic Deployment

■ Improved Ground Mobility

■ Improved Survivability



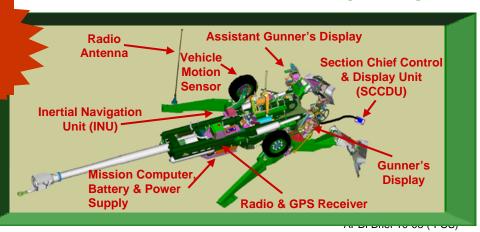
**■** Flexible Operations

■ No Survey

Towed Artillery
Digitization
(TAD)

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

- Improved Accuracy
- **■** More Responsive





## LW155 Program Status & Path Forward

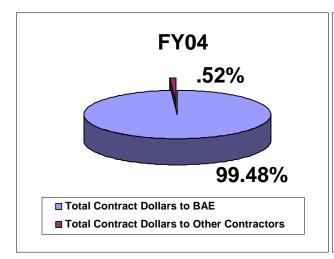


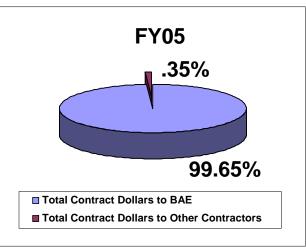
LRIP contract awarded for 94 USMC systems (26 November 2002) ASN (RDA) approved a joint multi-year contract strategy for Full-**Rate Production (FRP)** > FRP contract for 516 USMC & Army systems under development > FRP Decision (December 2004) Contract Award (January 2005) **Testing of the basic M777 is complete** Operational Assessment completed June 2002 Completed Reliability Testing (June 03) & Corrosion Testing (July 03) ▲ TAD integration and testing of the M777E1 is underway Completed Contractor Logistics Validation & Mini Log Demo (July 03) Conducting Functional Qualification Testing of TAD softwar Electronic & Electromagnetic Effects Testing is ongoing Strength of Design/Safety Testing is also underway Cold Regions Testing is planned for November 2003 - March 2004 Joint Operational Testing is planned for August – September 2004

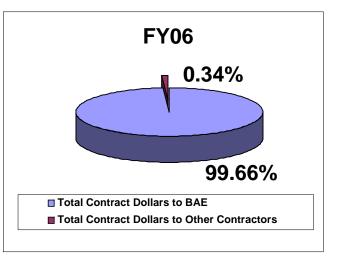


## LW155 Contractor Dollars FY04 – FY06









#### **Dollars in M**

	Total Contract Dollars	Total Contract Dollars To go to BAE	Total Contract Dollars To go to Other Contractors	Percent of Contract Dollars for Other Contractors
FY04	96.1	95.6	0.5	0.52
FY05	142.0	141.5	0.5	0.35
FY06	147.9	147.4	0.5	0.34



## JPM Robotic Systems (RS)







## JPM RS Programs (-FCS)



### **USMC**



**Gladiator** 

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



**Assault Breaching** Vehicle (ABV)

- M1 Chassis
- Mine Plow, Lane **Marking**
- Capability

- MICLIC
- CRS Teleoperation

### **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**

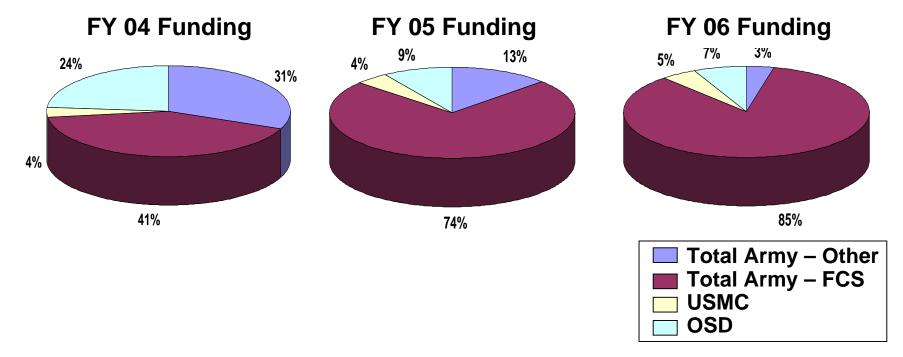
- 3.000 5.000 Lbs
- AP Mine Neutralization
- Wire Obstacle **Breaching**
- Obscurant Dispensing

**UGV ROP** 



## RS Contract Dollars FY 04 – FY 06





Dollars in M	USMC	OSD	ARMY	ARMY- FCS Subcontractors
FY 04	1.5	9.8	13.0	17.1
FY 05	3.0	6.1	8.8	49.3
FY 06	5.8	8.4	4.2	102.6

**Totals Include Both RDT&E and Procurement Dollars** 



### **PEO GCS Omnibus Contract**

### ▲ What is it?

➤ PEO GCS Omnibus Engineering Services Contract available for use by all PEO GCS PMs/APEOs in areas such as program management, support, engineering, and logistics.

### ▲ Value:

> \$153M

### **▲** How Long?

- Will award one 5-year Blanket Purchase Agreement.
- Award will be made on Best Value, and will be a Time and Materials Contract.

### **▲** Status:

Award expected prior to end of year.

