



NDIA 2007 Munitions Executive Summit

PM Close Combat Systems

7 February 2007

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CLOSE COMBAT SYSTEMS



Organization & Programs Managed

**210 Products
Managed in FY06**

**COL Jack Koster
Project Manager**

**Business Management
Bob Wisser**

**Patricia Felth
Dep. Project Manager**

**Chief System Engineer
Ross Benjamin
Technology Associate
Harold Schliesske**

**Networked/
Demolitions
Doreen Chaplin**

- Spider Networked Munitions System
- Legacy Mines
 - Claymore
 - MOPMS
 - Volcano
- Demolitions
 - MDI
 - Det. Cord
 - Blasting Caps
 - Fuzes
 - Bangalore
- Torpedo
 - Block Explosive
 - Sheet Explosives
- APOBS
- CAD/PAD
- EOD Ammo

**Munitions/
Pyrotechnics
S. Lombardo**

- Grenades
 - Lethal Grenades
 - Smoke Grenades
 - Launcher Grenades
- Pyrotechnics
 - Flares
 - Signals
 - Simulators
- Shoulder-Launched Munitions
 - AT4-CS
 - BDM

ARDEC

**Protect Force
Kevin Wong**

- Non Lethal Capability Set
- VLAD
- PVAB
- Non Lethal Ammo
 - MCCM
 - 40 mm
 - 12 gauge
 - NL Grenades
- Tactical NL Munitions
- Special Projects
 - MI RAMS
 - GDS
 - GMENS
 - TD-SYDET
 - SOF Demo Kit
 - RWBK

**PM IMS
LTC J. Winbush
Joe Pelino DPM**

(IMS)
Intelligent Munitions System*

JMC

**PM Countermine
LTC Lozis
Phil Purdy DPM**

- Standoff Mine Detection Systems:
 - HSTAMIDS*
 - GSTAMIDS*
 - ASTAMIDS*
- Aardvark Med Flail
- Berm Sifter
- Hydrema Flail
- EOD Equipment

NVESD

**PM IED Defeat
LTC Karl Borjes
R. Gullifer DPM
(Provisional)**

- IED Mine Rollers
- FSEP*
- OVERSIGHT:**
- VOSS*
- Husky Ferret Arm Sparrow
- Cache Detection

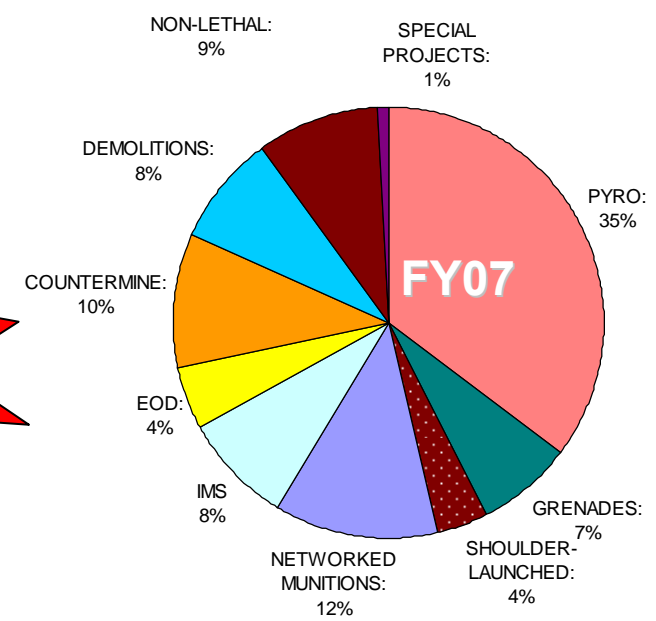
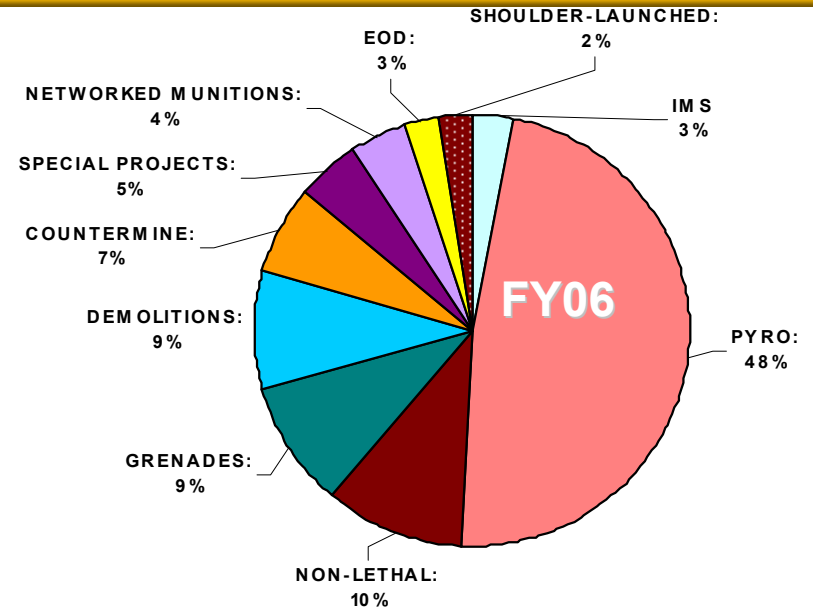
* FCS Program

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PM CCS FY06 vs. FY07 Program Funding

06 vs '07	PRODUCT LINE	FY06	FY07	FY06	FY07
		#Lines	#Lines	Total Funding	Total Funding
↓	PYROTECHNICS:	54	34	465.2	344.5
↓	GRENADES:	26	9	91.6	71.0
↑	SHOULDER-LAUNCHED:	3	3	23.2	39.6
↑	NETWORKED MUNITIONS:	6	6	39.4	118.9
↑	IMS	1	3	30.9	82.0
↑	EOD:	1	1	26.4	43.9
↑	COUNTERMINE:	4	5	65.0	98.5
↓	DEMOLITIONS:	42	50	86.6	81.1
↓	NON-LETHAL:	25	12	101.0	90.4
↓	SPECIAL PROJECTS:	13	9	46.0	8.3
TOTAL ALL PRODUCT LINES:		175	132	\$ 975.3	\$ 978.3



\$1006M w/IED-D in FY07



Intelligent Munitions Systems (IMS) Operational Challenges

Urban Complex Environment

Meeting operational effectiveness requirements in urban and built-up areas

Developing scaleable effects that are effective at all stand-off

Lethal & Non-Lethal

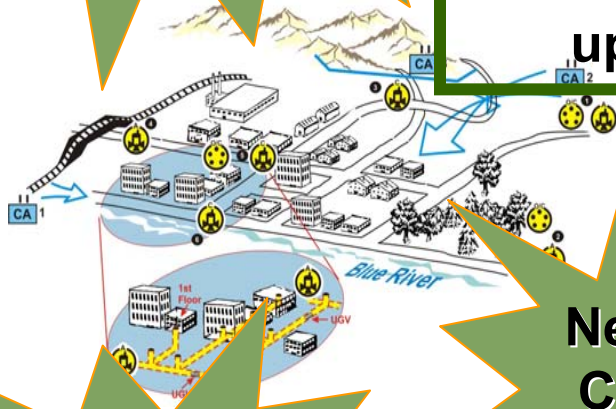
Network Centric

Ability to Deliver Sensors

Artillery • Mortars • Airdrop

Networked Systems require secure and always available communications (IA, DITSCAP)

To enable capabilities like safe passage, software controls safety critical functions



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Shoulder Launched Munitions (SLM) Operational Challenges

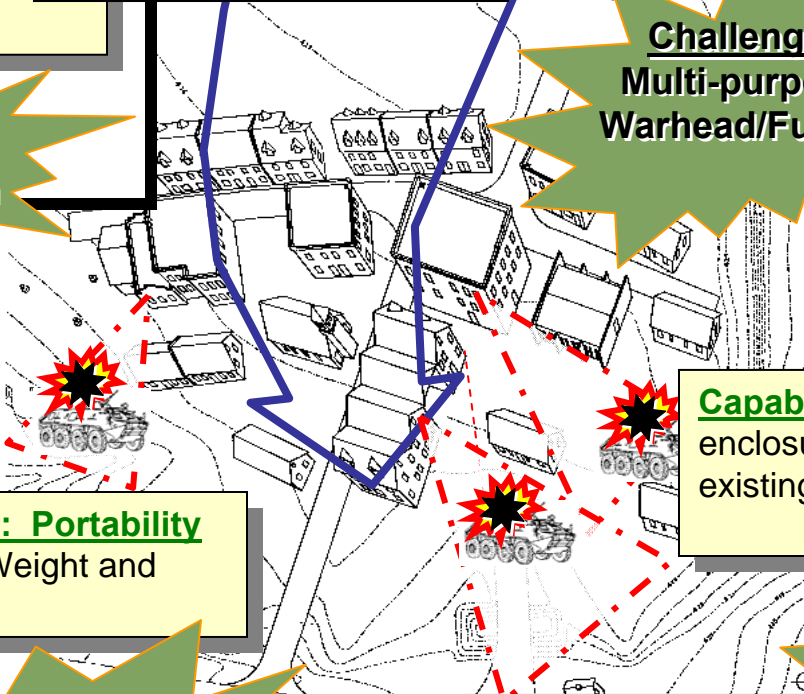
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Capability: Minimum Range

Lethal effects at short ranges encountered in street-to-street fighting

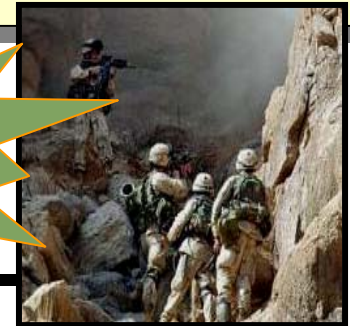


Challenge: Fragmentation



Capability: Lethality Incapacitate Personnel Within:

- *Light Armored Vehicles*
- *Field Fortifications*
- *Masonry Structures*



Challenge: Multi-purpose Warhead/Fuzing

Capability: Survivability Fire from enclosures to allow gunner use of existing cover



Capability: Portability

Minimize Weight and Size

Challenge: Physical Performance Limitations

Challenge: Health Hazard Reduction

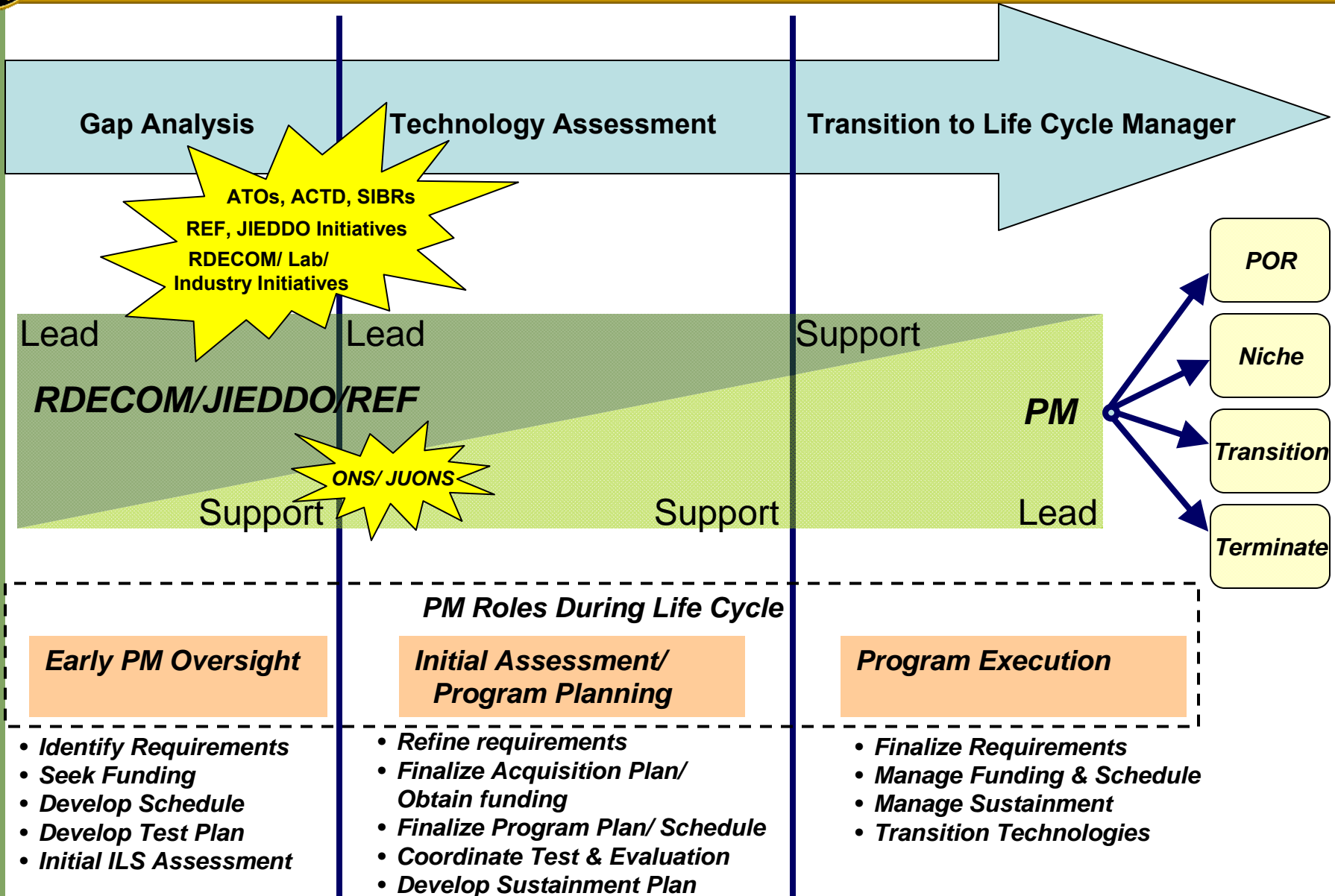
- Noise
- Back-blast
- Toxic Fumes





Rapid Acquisition Process

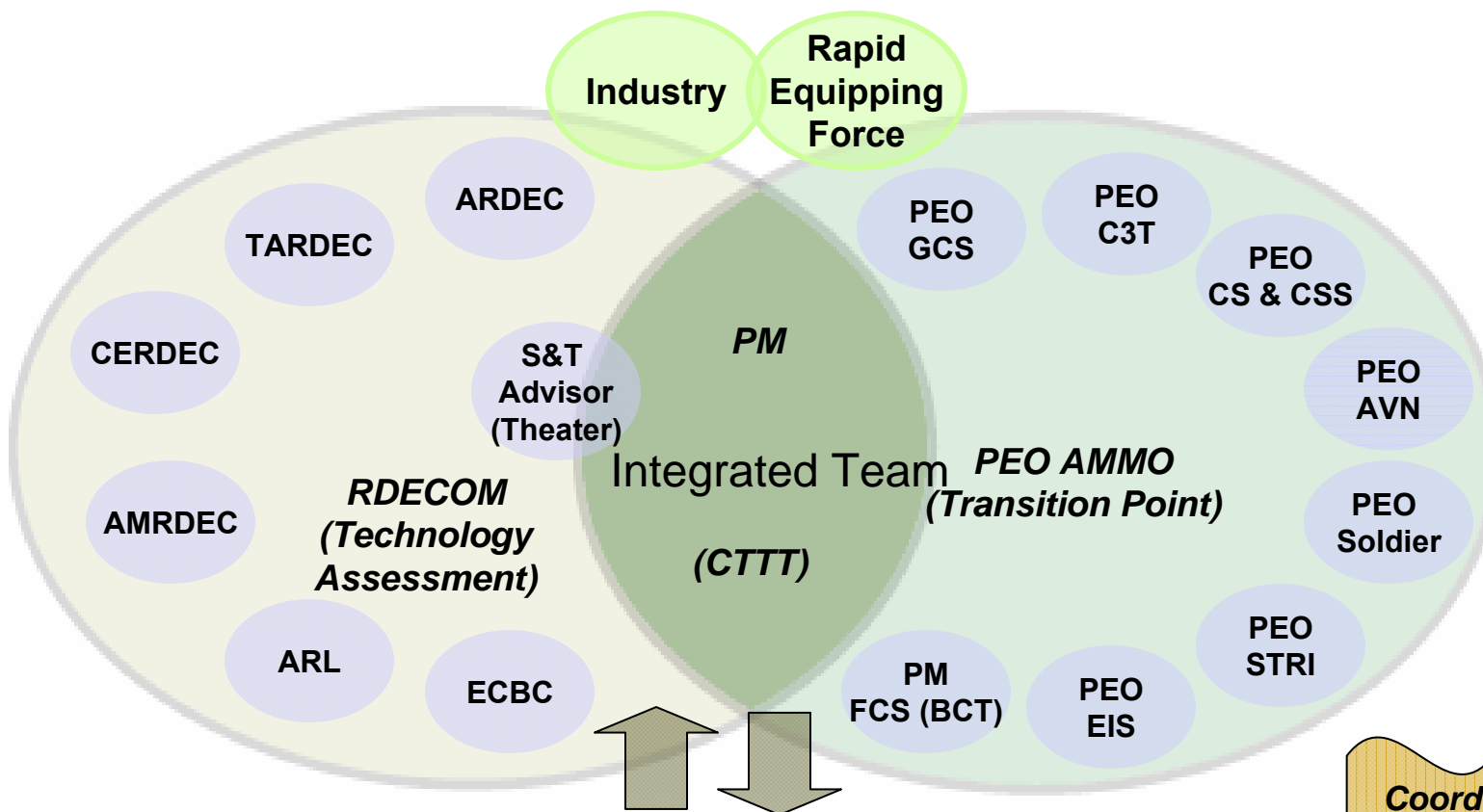
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Stakeholders & Teaming Relationship

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Requirements & Funding Come From:

- Theater / TRADOC (JRAC)
- JIEDDO
- Army Staff
- SOCOM
- Industry

Coordination with multiple organizations leads to Mission Success

Summary



- New Warfare → New Challenges
 - Decreasing effectiveness of older products
- Modernization through Acquisition