

TACOM APBI



30 October - 1 November

Advanced Planning Briefing for Industry



Program Executive Office Ground Combat Systems



Advanced Planning Brief to Industry



Briefing Outline

- **PEO Vision**
- **PEO Organization**
- **FCS Management Strategy**
- **Major Program Activities**



PEO-GCS

Vision and Mission

Vision

Systems Integrator for the Armed Forces of Today and Tomorrow

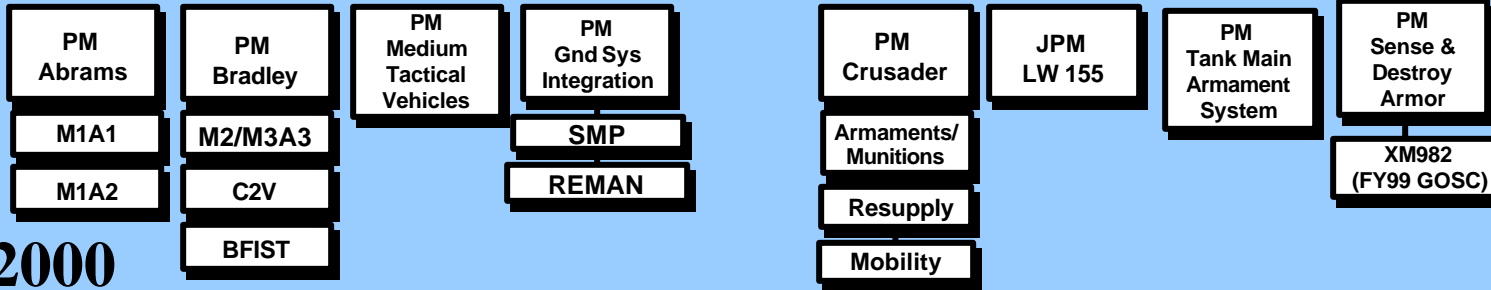
Mission

Maintain The Total Army Perspective While Managing Assigned Systems. Develop, Acquire, Test, Integrate, Improve, and Field Programs While Meeting Cost, Schedule and Performance Goals

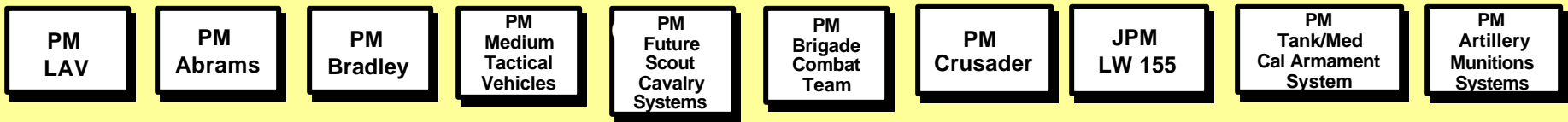


Evolving the PEO Organization

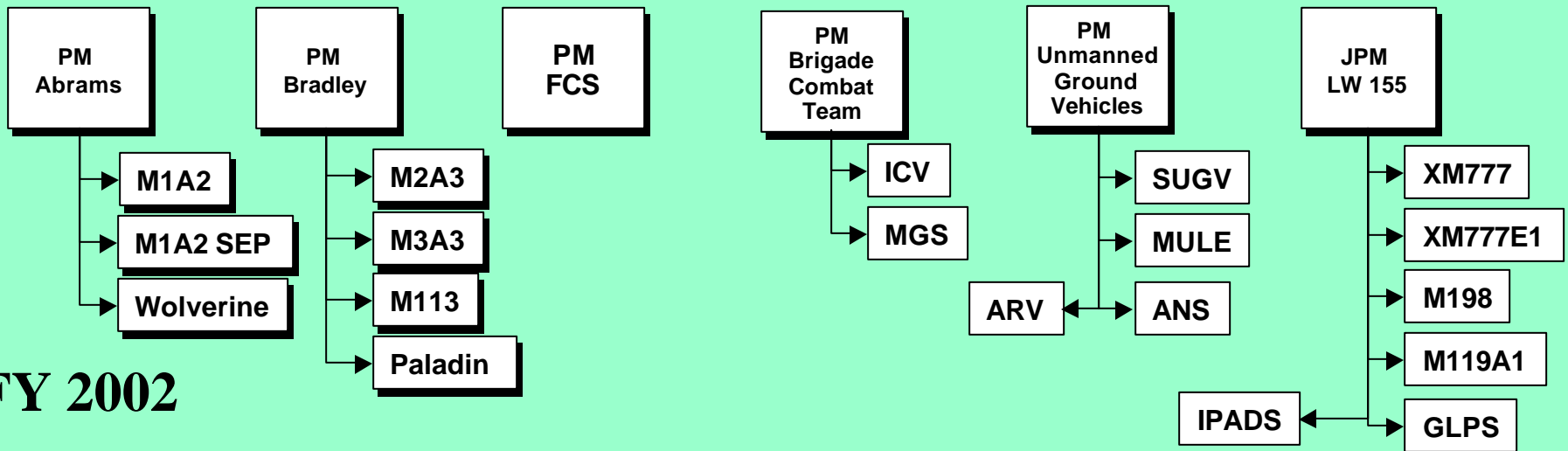
FY 2000



FY 2001

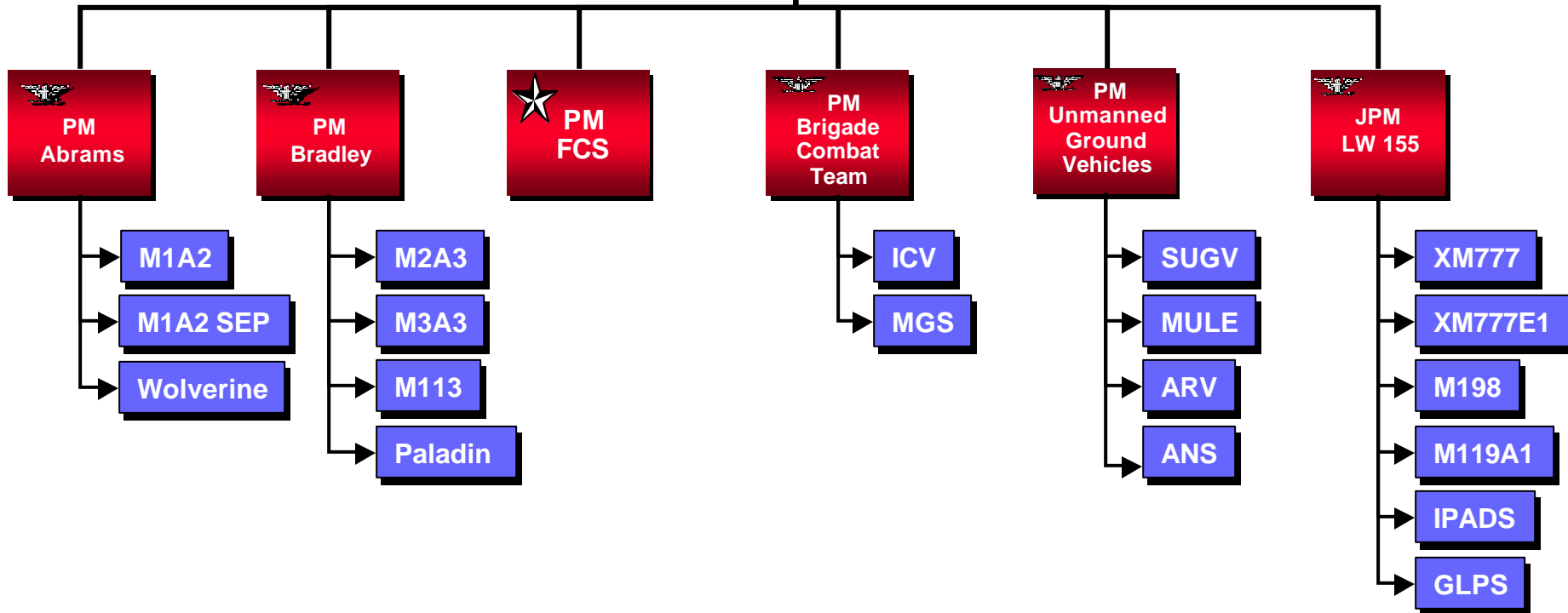


FY 2002





Current Organization





FCS



Fundamental Management Premise

- ▼ **The Program Manager for the FCS has System of Systems responsibility for cost, schedule, and performance.**
- ▼ **The LSI will perform missions and functions for systems acquisitions normally accomplished by our board selected Project Managers.**
- ▼ **Our role needs to reflect that we are no longer directly responsible for system level cost, schedule, and performance.**



FCS System of Systems Definition



FCS Is Composed of a Collection of Aerial and Ground, Manned and Unmanned, Combat Vehicles Linked Together Via a C4ISR Architecture to Facilitate Network Centric Warfare. The Resulting Combat Power Is Far Superior to the Individual Contribution of the Individual Vehicles and Weapons.





Essential Criteria for FCS System of Systems Management Leading to Fielding an Integrated Unit of Action



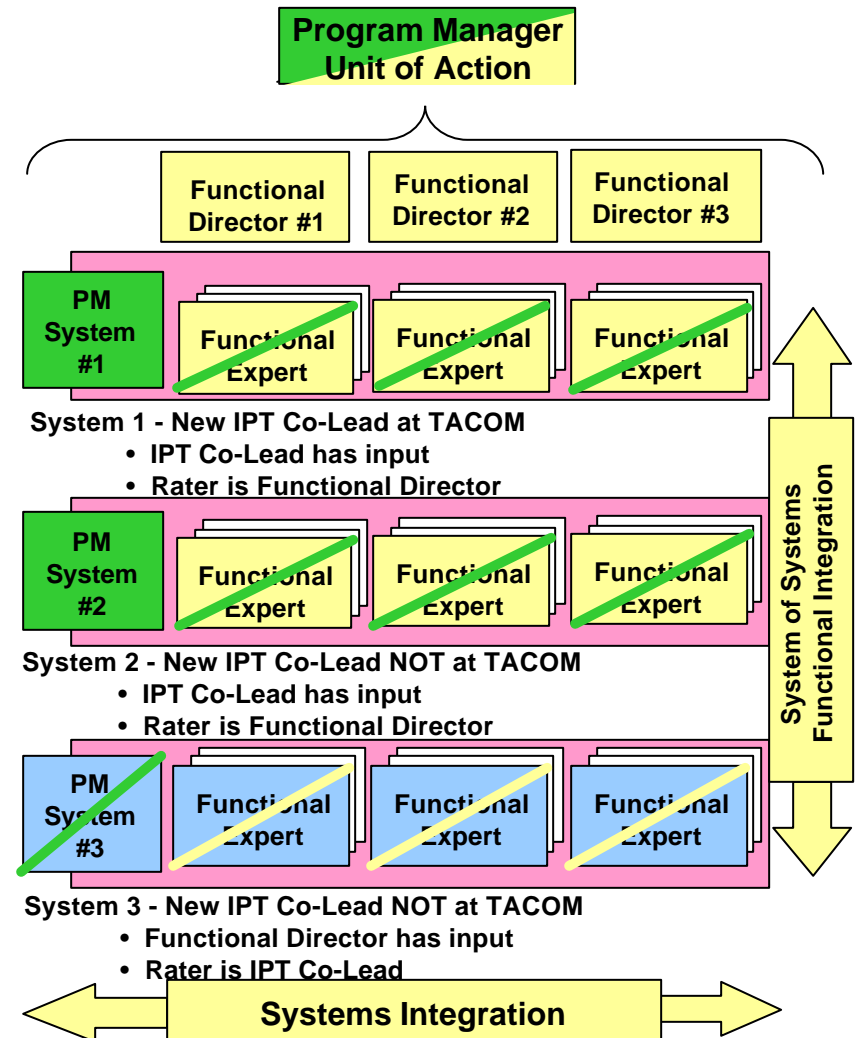
1. **Distributed execution: organizationally and geographically**
 - ▶ **Advanced Collaborative Environment (ACE) Manager defines boundaries and controls (facilitates government and LSI work collaboration)**
2. **Designated Lead PEO / Program Manager; IPT Co-Leads reinforced by adequate matrix. Expertise negotiated with the LSI.**
3. **Use existing Centers of Excellence regardless of location to minimize programmatic learning curve**
 - ▶ **Based on core competencies and matrix/contractor augmentation**
 - ▶ **Draw from all sources of expertise:**
 - PEO
 - RDECs
 - DARPA
 - User Community
 - Others TBD
4. **Systems' integration of the Unit of Action (UA) takes precedence**
 - ▶ **HQ TRADOC is Single User voice for pooled family requirements**
 - ▶ **Proponent schools associated with variant teams; voice requirements to HQ TRADOC**
 - ▶ **Centrally controlled budget to retain wide flexibility on evolving requirement and acquisition environment**
5. **Program Manager and supporting IPT Co-Leads chartered to insure a System of Systems approach throughout the UA**



Notional Organization Reporting Structure

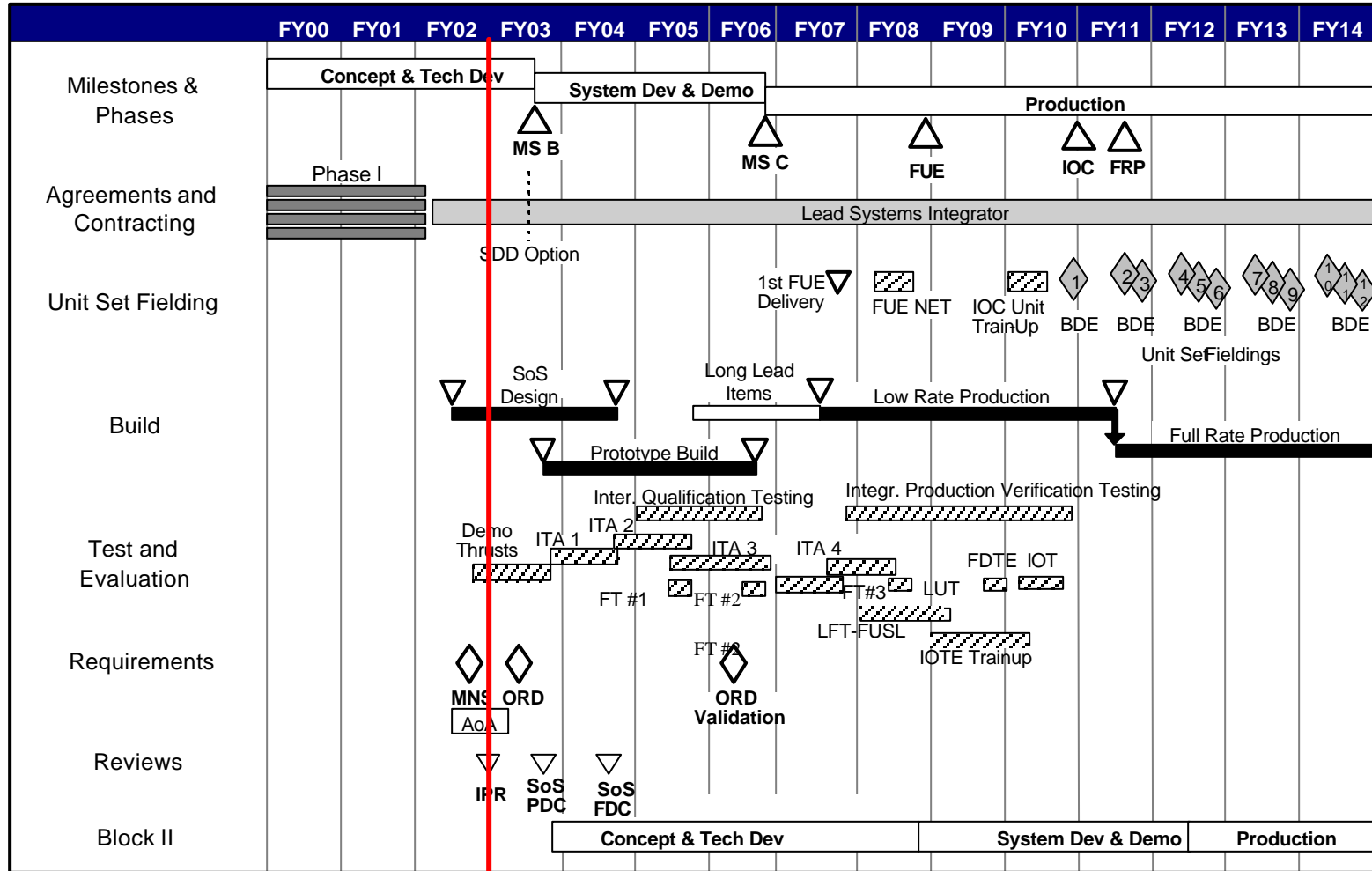


- **UA Program Manager:**
 - Provides resources and with the LSI defines mission of IPT Co-Leads
 - Leads integrated budgeting activity
- **Directors of the functional areas:**
 - Responsible to the UA Program Manager
 - Provide functional support to the IPT Co-Leads and domain expertise to LSI
- **IPT Co-Leads and Appropriate Functional Directors:**
 - Insure that UA requirement takes precedence over individual system needs
 - Insure that system integration and commonality are addressed across UA
 - Resolve conflicts
- **Organizationally and geographically distributed management and execution**
- **Program will use existing centers of excellence and expertise**
- **IPT Co-Leads (Project Managers):**
 - Located where their system's source of expertise resides
 - Support LSI and provide oversight functions





FCS Overall Program Schedule



How We Got Here

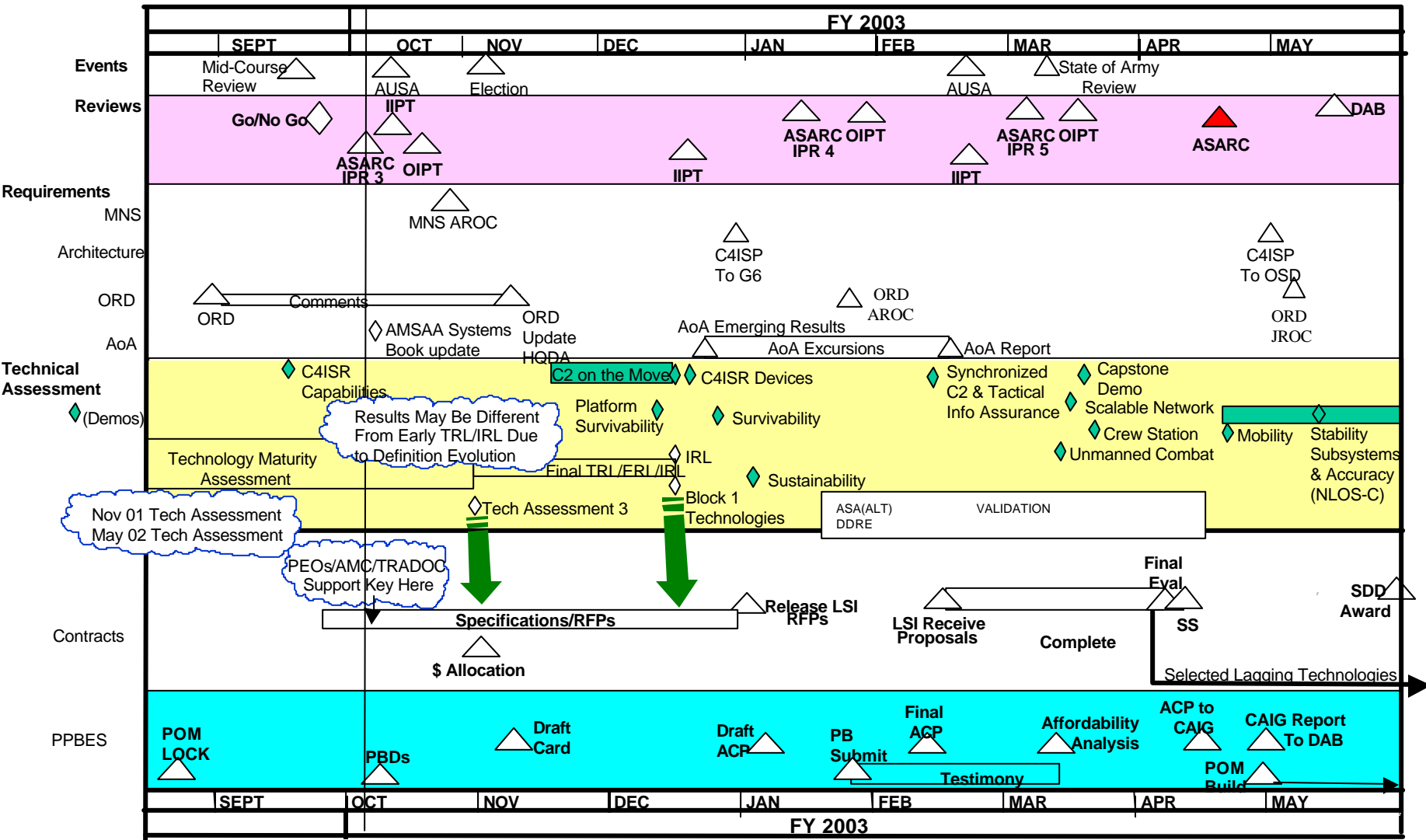
- Multiple Teams in Phase I
- Competitive Solicitation For Lead System Integrator (Nov 01)
- DARPA Issued OTA to Boeing (14 Mar 02); Estimated Value: \$240M.
- Agreement Includes an Option for SDD

Deliberate Implementation of Evolutionary Acquisition

- Blocked Requirements w/o Definition of Ultimate Functionality
- Each Increment Defined by Maturation of Technology Matched With Evolving Needs of the User
- Spirals as Appropriate Within Each Increment



FCS Critical Activities to MS "B"





Abrams Tank Systems Programs Within the Project



Upgrade



M1 Basic

M1A2 SEP

Recapitalization

Retrofit



M1A2

M1A2 SEP

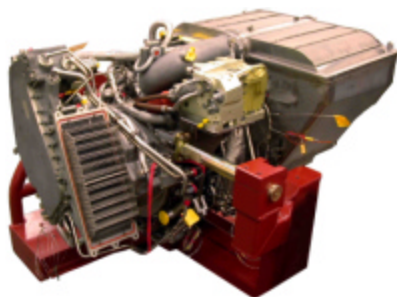
**M1A1 (AIM)
Rebuild**



M1A1

M1A1 +

New Engine



Electronic Obsolescence





FY03 Abrams Program Status



- RDTE \$83.1M Majority for LV 100 Engine Program
- PROC
 - SEP Upgrade \$376.3M Buys 103 M1 to M1A2 SEP upgrades
 - SEP Retrofit \$123.7M Buys 31 M1A2 to M1A2 SEP retrofits
- Mod Line \$191.4M Includes LV 100 Engine, Safety, PJS, UAAPU, Frontal and Improved Side Armor
- Misc \$27.6M Includes Tng Devices, Tng Device Mods, & Spares
- OMA \$129.7M AIM rebuild for 135 M1A1 tanks



Bradley Fighting Vehicle Systems Products in the Program Office



Bradley FIST (A3)



Bradley A3



Bradley Base Sustainment



**Bradley A2
Operation Desert Storm (ODS)**



Bradley Fire Support Vehicle (BFIST) M7



Multiple Launch Rocket System (MLRS) Chassis



Armored Gun Systems (AGS) M8



Armored Medical Evacuation Vehicle (AMEV)



**Linebacker M6/
MANPADS Under
Armor (MUA)**



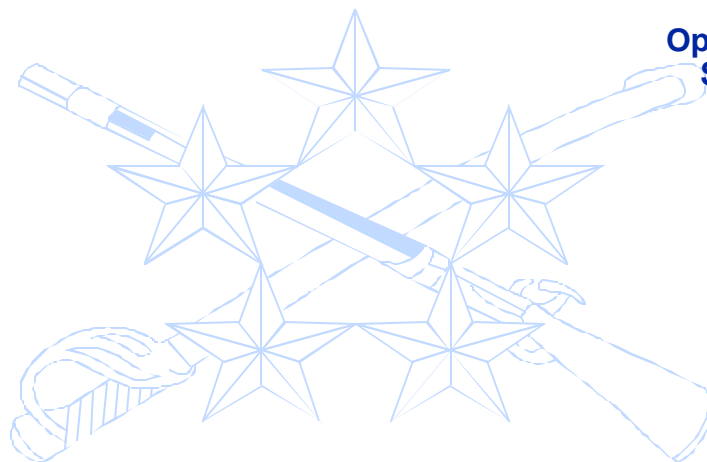
Striker



M113 FOV



Command and Control Vehicle (C2V)





FY03 Bradley Program Status



- No RDT&E Funding
- Procurement
 - Bradley base sustainment program \$397.1M - Buys 138 Bradley A3 vehicles - 3rd year of a three year multi-year contract with UDLP.
 - Bradley MODS \$ 35.0M - ODS MODS, Applique, High priority improvements
 - Striker \$28.5M - buys 54 Striker vehicles
 - BFIST \$7.0M - buys & fields BFISTs
 - Miscellaneous \$21.9M - includes training device modifications and initial spares

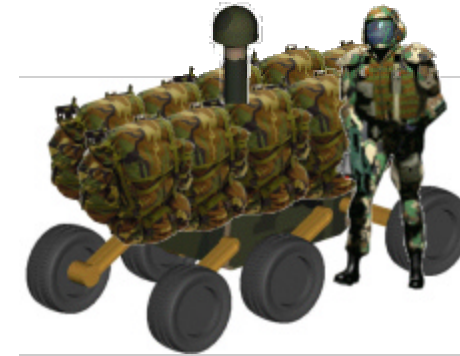


Unmanned Ground Vehicle Platforms for FCS



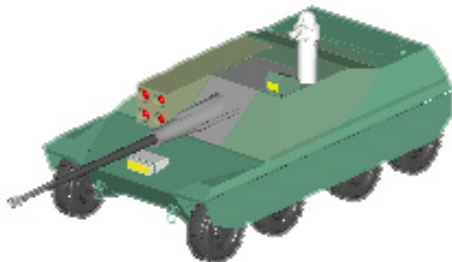
Soldier Unmanned Ground Vehicle (SUGV)

- Small platform to weigh less than 30 lb
- Conduct Reconnaissance in a MOUT environment, tunnels/sewers, bunkers & caves



Multifunction Utility/Logistics & Equipment Vehicle (MULE)

- 1 to 2 ton platform
- Carry a 1200lb payload
- Support Dismounted Infantry



Armored Reconnaissance Vehicle (ARV)

- ARV (Recon) 5.3 tons, to support Maneuver Forces
- ARV (Assault) 2.5 tons, to provide firepower for Dismounted Infantry



Autonomous Navigation System (ANS)

- Separate procurement package to provide a universal ANS for all systems

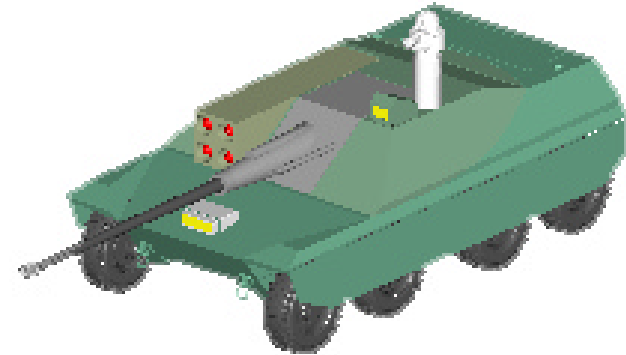


Unmanned Ground Vehicle Acquisition Strategy for FCS



FY 03 Events:

- Provide a draft SDD package to industry for comment, Nov 02
- SDD Package release to Industry for Bid, Jan 03
- Award contracts in June 03
- Full and Open Competition
- Each Procurement considering more than one Offeror for each acquisition



PEO GCS :

- Government support to the Boeing LSI:
 - IPR Reviews
 - Source Selection
 - Development of SDD package
 - Interface with Users
 - Support the UGV Demo's
 - Interface with Objective Force Warrior
 - Establish a PM FCS UGV Program office



JLW System Description



Mission Statement:

Provide direct, reinforcing, and general support fires to maneuver forces. Replace the M198 howitzer as the general support artillery for light forces in the Army. Replace all howitzers in all missions in the USMC. Direct support artillery for the Interim Force.

Characteristics / Description:

Weight	10,500 pounds or less
Emplace, Displace	<3 min, <2 min
Maximum Range	30 km (assisted)
Rate-of-Fire	4-8rds/min max, 2rds/min sustain
Prime Mover	Current 5T truck, FMTV, MTRV
Airmobility	MV22, CH53D/E, CH47D
Digital Fire Control	Army req'd; USMC P3I

Capability / Improvements:

- Improved lethality & strategic deployment
- Increased tactical mobility & reliability
- Improved rate of fire
- Improved Survivability (decreased emplacement/displacement time -- shoot and scoot tactics with automatic fire control)
- Digitizes all Army and USMC towed artillery

Special Features:

- Joint USMC/Army Program
- ASN(RDA) is the MDA for Howitzer
- PEO GCS is the MDA for digital fire control
- COMMARCORSYSCOM directs program
- PEO GCS executes program
- Program office is jointly manned
- USMC funds basis weapon R & D;
- Army funds fire control R & D
- International with UK and IT

Contractors:

- BAE Systems – United Kingdom – Prime
- General Dynamics – Burlington, VT – TAD
- ARDEC – Picatinny Arsenal, NJ Engineering
- Benet Labs – Watervliet, NY – Cannon Assembly
- RIA – Rock Island, IL – Breech Operating & Loading Tray



JLW 155

Program Accomplishments



- **Completed Operational Assessment**
 - Fixes Applied or Under Development
- **PP1 Testing Underway**
 - Accuracy Requirement Met
 - Strength of Design Test Completed
- **TAD Development Progressing Well**
 - Interfaces Already on Weapon
 - Currently Testing Hardware on Gun

**Program on Track for
Production Milestone in Nov 02**



Summary

PEO GCS must continually strive to find innovation methods to provide the best available weapon systems, in an appropriate timeframe within scheduled cost, to the soldier.

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