Armor and Fire Support Systems
Product Group 14
Overview

Mr. Robert Williams, Jr., Product Group Director
To equip operating forces with assault amphibious vehicle systems, fire support systems, a high mobility artillery rocket system, an expeditionary fire support system and tank systems to accomplish their war-fighting mission.

Through the use of Portfolio Management (PfM), AFSS manages its portfolio of programs in a coordinated, strategic fashion that maximizes the combat capabilities to the Operating Forces.
AFSS Programs

**PM FSS**
Joint Enhanced Targeting System
Common Laser Rangefinder (CLRF)
Ground Counter Fire Sensor (GCFS)
Ground Laser Target Designator (GLTD)
M198 Howitzer
Howitzer Information Tool
Improved Position/Azimuth Determining System
Mortar Ballistic Computer
Meteorological Station Group, Profiler
Modular Artillery Charge System
Multi Option Fuze Artillery
Portable Inductive Artillery Fuze Setter

**PM EFSS**
Expeditionary Fire Support System/Internally Transportable Vehicle (EFSS/ITV)

**PM Tank Systems**
Armored Vehicle Driver Vision Enhancement
M1A1 Firepower Enhancement
M1A1 Safety Modification Program
M1A1 Tank Sustainment Program
M88A2 Hercules Tank Recovery Vehicle

**PM AAVS**
RAM/RS Program
AAV Modification Kits
Foreign Military Sales

**PM HIMARS**
High Mobility Artillery Rocket System
Guided Multiple Launch Rocket System Rockets
Marine Corps Transparent Armor Gun Shield
Advanced Planning Briefing to Industry 2006

Product Group Principals:

*PM FSS*: Mr. James Ripley 703-432-4323  
*PM TANKS*: LtCol John Swift 703-432-4325  
*PM AAVS*: Mr. Bryan Prosser 703-432-4321  
*PM HIMARS*: Mr. Jim Westerholm 703-432-4204  
*PM EFSS*: Mr. John Garner 703-432-3258

Strategic Business Team:

Business Manager: Mr. Sushil Baluja 703-432-4253  
Lead Engineer: Mr. Edward Lerner 703-432-4259  
Lead Logistician: Mr. Jeffrey Gibbs 703-432-4272  
Lead Financial Manager: Mr. Jeffrey Speer 703-432-4274  
Contracts Manager: Mr. Edwin Wright 703-432-4284  
Technologist: Mr. Craig Melton 703-432-3492
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Next….Mr. Bryan Prosser
Armor and Fire Support Systems
Product Group 14
Assault Amphibious Vehicle Systems

Mr. Bryan Prosser, Program Manager
PM Assault Amphibious Vehicle Systems     Mr. Prosser

Develop, demonstrate, procure, field, provide life-cycle support and maintain safe, reliable and cost efficient Assault Amphibious Vehicle Weapon Systems for USMC Forces
RAM/RS Team
• RAM/RS Program
• IROAN Planning/Execution
• OIF Support
• AAV Disposal Planning
• Foreign Military Sales

Operational Support Team
• M36E3 Sight Upgrade
• AAVC7A1 Upgrade
• EAAK Reprocurement
• Various ECPs/Modifications (i.e., DAGR integration, tow pintle replacement)
• Torsion Bar replacement
• OIF Lessons Learned

• AAV7A1 originally fielded in 1972-1975 will remain in USMC inventory until fully replaced by the EFV in 2020.
• With industry support, PM AAVS must maintain the capabilities of the AAV FOV in support of fleet needs.
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Near-Term Program Initiatives

• **UGWS M36E3 Sight Upgrade**
  – 3Q/FY06 - RFP release for open competition

• **AAVC7A1 Capability Upgrade Demonstration**
  – FY06 – Demonstrate ability to integrate EFV(C) capability into the AAVC7A1

• **Counter IED System Integration**
  – FY06 – Integration of selected system onto AAV FOV
Future Program Initiatives

• **R&D Investment**
  – FY08-09 - AAV Capability Enhancement Studies (POM-08)
  – FY08-09 - AAVC7A1 Upgrade (POM-08)
  – FY08-10 - UGWS Thermal Sight Integration (POM-08)

• **PMC Investment**
  – 4Q/FY09 – FY12 - AAVC7A1 Upgrade (POM-08)
  – FY10-12 - UGWS Thermal Sight Procurement (POM-08)
NEXT….Mr. John Garner, Program Manager, EFSS/ITV
Armor and Fire Support Systems

Product Group 14

Expeditionary Fire Support Systems/Internally Transportable Vehicle

Mr. John Garner, Program Manager
PM Expeditionary Fire Support System/Internally Transportable Vehicle  Mr. Garner

Description

- EFSS will be the principal indirect fire support system of the vertical assault element of a Ship-To-Objective-Maneuver (STOM) force
  - 66 EFSS - 2 Mobility Platforms (PM), 120mm RTM, Ammunition, and Trailer
- ITV will provide a deployed Marine Air-Ground Task Force (MAGTF) and Marine Expeditionary Unit - Special Operations Capable (MEU-SOC) with a vehicle that is internally transportable in selected rotary and fixed wing aircraft
  - 496 Light Strike Variants & 50 Utility Variants
- IOC 2\textsuperscript{nd} Qtr FY07
### EFSS

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*$5.5M FY05 funding deferred to FY06*

### ITV

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Near-Term Program Initiatives

- **EFSS LRIP Decision - June 2006**
- **ITV LRIP Decision – June 2006**
- **Combined EFSS/ITV OT&E – October thru December 2006**
Future Program Initiatives

- **R&D Investment**
  - Armor (underway)
  - Precision Extended Range Munition (TBD)
  - Digital Communications (FY07 – FY08)
  - Onboard Ballistic Computation (FY07 – FY08)

- **PMC Investment**
  - Procure Armor Kits (FY2007)
Open Discussion Topics

- **GD-OTS Prime Contract but many opportunities for subs to participate – Current Examples**
  - Air Ride Technologies
  - General Motors Transmissions (Power Train)
- **Future – Armor development in process**
NEXT….Mr. James Ripley, Program Manager, Fire Support Systems
Armor and Fire Support Systems

Product Group 14

Fire Support Systems

Mr. James Ripley, Program Manager
PM Fire Support Systems  Mr. Ripley

- Survey/Met Team
  - Ground Counter Fire System (GCFS/HALO)
  - Improved Position and Azimuth Determining System (IPADS)
  - Lightweight Handheld Mortar Ballistic Computer (LHMBC)
  - Marine Artillery Survey Set (MASS)
  - Met Systems (Upgrades, Profiler, AFWA Access)

- Fielded Firing Systems
  - M198 Phase Out and LW155 Fielding Support
  - Aiming Circles FY 05-12
  - Munitions (MOFA, PIAFS, EPIAFS, MACS, Excalibur, ACAAP)
  - System Information Tool (SIT)/Autonomic Logistics
  - Gun Display Units (GDU)
  - Miscellaneous Ancillary (SL-3) Support

- Targeting Systems
  - Common Laser Range Finder (CLRF)
  - Laser Target Designators (LTD)
  - True North Azimuth Detection System (TNADS)
  - Joint Effects Targeting System (JETS)
With the exception of JETS, which is a POM 08 issue, all the listed FSS programs are underway.

Need help:
1. Refreshing existing hardware with better technology
2. Collecting data to track and trend system performance
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Near-Term Program Initiatives

Targeting Systems; Laser Designators and Range Finders
• Need to reduce weight across the board
• Need to reduce Target Location Error (TLE) and be unaffected by magnetic fields

Integrating the Systems Information Tool (SIT) to collect RAM data for computing
\[ A_o = \frac{MTBF}{MTBF + MTTR + MLDT} \]

Integrate Air Force Weather Assessment model as meteorology input to artillery fire control.

Instrument howitzers to track Effective Full Charges (EFC), Miles and terrain towed, Recoil Condition.
Future Program Initiatives

• **R&D Investment**
  – Joint Effects Targeting System (JETS FY 08-10)

• **PMC Investment**
  – JETS or replacement/refresh LTD/LRF FY 10-12

• **O&MMC Investment**
  – Develop PBL for all systems FY 08 and out.
Open Discussion Topics

- **AFWA Employment**
- **$A_0$ data to track and trend all systems.**
- **Howitzer Sensors**
- **Targeting System Weight Reduction and Performance Improvement**
NEXT….Mr. James Westerholm, Program Manager, HIMARS
Armor and Fire Support Systems

Product Group 14

High Mobility Artillery Rocket System (HIMARS)

Mr. James Westerholm, Program Manager
**Description:** PM HIMARS has two programs in its portfolio; the USMC HIMARS and the Marine Corps Transparent Armored Gun Shield (MCTAGS). PM HIMARS is responsible for the complete life-cycle management of the USMC HIMARS and MCTAGS; including developing, testing, fielding, sustaining, and planning for disposal of the systems.
• **USMC HIMARS is in Full Rate Production**
  – First Battery (F 2/14) fielded 1Q/06
  – Initial Operational Capability (1 Battalion) planned 3Q/08
  – Full Operational Capability (2 Battalions & Supt Establishment) planned 3Q/10

• **MCTAGS in Full Rate Production**
  – Currently fielding urgent need to II MEF in support of Global War on Terrorism
  – Complete fielding 4Q/06
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Near-Term Program Initiatives

- **Procure HIMARS Systems**
  - 18 system in FY06
  - 6 systems in FY07

- **Procure Guided Multiple Launch Rocket System (GMLRS) Rocket Pods**
  - 486 rockets in FY06

- **Field MCTAGS AAO in FY06**
  - 4Q/06 - Fielding Completed

- **Field Active HIMARS Battalion (5/11)**
  - Begin fielding 2Q/07
Future Program Initiatives

• **R&D Investment**
  – Technology Insertion of HIMARS System and Munitions throughout FYDP

• **PMC Investment**
  – Procure Remaining HIMARS Systems in FY08/09
  – Continue Procurement of GMLRS Rocket Pods throughout FYDP
  – System/Capability Upgrades throughout the FYDP

• **O&MMC Investment**
  – Sustainment of fielded HIMARS systems
NEXT….LtCol John Swift, Program Manager, Tank Systems
Armor and Fire Support Systems
Product Group 14

Tank Systems

LtCol John Swift USMC, Program Manager
Develop, demonstrate, procure, field, and provide life cycle support for the Main Battle Tank, Improved Recovery Vehicle and the Armored Vehicle Launched Bridge in support of the MAGTF.
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Near-Term Program Initiatives

• **Field FEP Systems to OIF and MPF**
  - 26 system in FY06 to OIF
  - 116 systems in FY06/7 to MPF

• **Install Safety Upgrades**
  - UTCP
  - Ammo Door Pins
  - QD Relocate

• **Apply OIF Modifications**
  - Multi-purpose Tank Blade
  - T/I Phone
  - M829A3/Canister Card
Future Program Initiatives

• *R&D Investment*
  – Technology Insertion for Digital Architecture and Improved Automotive Reliability

• *PMC Investment*
  – Procure Fleet Wide assets for OIF Configuration
  – System/Capability Upgrades throughout the FYDP

• *O&MMC Investment*
  – Continued Sustainment of fielded Tank Systems
Future Tank Systems Improved Reliability and Sustainability through 2025

The purpose of this initiative is to conduct lifecycle modernization and support planning for the M1A1 tanks. The result of this planning will be an acquisition strategy addressing incremental technical insertion for tank systems modernization. This systematic acquisition planning approach shall ensure continued combat overmatch capability of the M1A1 tanks through their remaining lifecycle in a cost effective manner, until fielding of a replacement system (2025+). The acquisition strategy developed shall address modernization requirements in terms of survivability, sustainability, lethality, maintainability, and C4I.
Questions?