Infantry Weapons Systems
Product Group 13
Overview

Lieutenant Colonel Scott A. Huelse
- Principal agent for equipping and sustaining Marine Corps Operating Forces with the weapons and systems to accomplish Infantry, Anti-armor, Amphibious Raids and Reconnaissance, target acquisition, force protection, and non-lethal systems missions.

- IWS is also developing the process by which the Marine Corps addresses the rifle squad as an integrated system and defines the Marine Expeditionary Rifle Squad of the future.
Portfolio

Infantry Weapons Systems

- Anti-Armor Systems
  - Anti-Armor
  - Anti-Structure
- Reconnaissance & Amphibious Raids
  - Parachute/Dive
  - Special Purpose
  - Boats
  - Aerial Delivery
- Infantry Weapons
  - Individual Weapons
    - Crew Served
- Optics & Non-Lethal Systems
  - Day Optics
  - Night Optics
  - Non-Lethal Systems
- Marine Expeditionary Rifle Squad
  - Squad Integration
  - Tech Insertion
  - Marine Enhancement Program
• Our perspective spans the continuum from rapid response projects to fill urgent needs of the operating forces to traditional long-term development and production programs.

• Our current activities ranges from COTS procurement to systems development & demonstration.

• We are looking to industry for cutting edge technology that can assist in providing enhanced capabilities while reducing system size and weight without losing performance.

• The Focus is on IR&D, and S&T partnerships within industry to provide the state-of-the-art COTS products that are attractive to Infantry Weapons Systems
Where we are located!

COMMANIDER
EXECUTIVE DIRECTOR

Product Groups

Product Group 09 Director, Operational Forces Systems
Product Group 10 Director, Information Systems & Infrastructure
Product Group 11 Director, MAGTF C2, Weapons & Sensors Development & Integration
Product Group 12 Director, Communications, Intelligence, & Networking Systems
Product Group 13 Director, Infantry Weapons Systems
Product Group 14 Director, Armor &Fire Support Systems
Product Group 15 Director, Ground Transportation & Engineer Systems
Product Group 16 Director, Combat Equipment and Support Systems

Program Managers

Program Manager, Ammunition
Program Manager, Global Combat Support System-Marine Corps
Program Manager, Training Systems Orlando, FL
Program Manager, Robotic Systems Huntsville, AL
Program Manager, Mine Resistant Ambush Protected
Program Manager, Light Armored Vehicle Warren, MI
Deputy JPEO, Chemical & Biological Defense Arlington, VA

AC Contracts
AC Life Cycle Logistics
AC Programs

DC= Deputy Commander
AC= Assistant Commander

Resource Mgmt
Competency Domain/Competency Leaders
Director, Financial Management
Director, Workforce Management and Development
DC Resource Management
DC SIAT
Systems Engineering
Director, C4I SE&I
Commanding Officer
MCTSSA
Camp Pendleton, CA

PEO Land Systems
PM Expeditionary Fighting Vehicle
PM JPMO, Lightweight 155
PM Marine Personnel Carrier
PM LVSR, PM JLTV
PM MTVR, PM GATOR, PM CAC2S
PM CAC2S

Director, Financial Management
Product Group Principals:

PGD: LtCol Scott A. Huelse  703-432-3688
PM MERS: Mr. Mark Richter 703-432-3744
PM R&R: Mr. William Barnebee 703-432-3638
PM ONS: Mr. Eric Miller 703-432-3612
PM IW: LtCol Tracy Tafolla 703-432-4641

Competency Alignment Team / Strategic Business Team
- Business Manager: Mr. Robert Forrester 703-432-3670
- Contracts Manager: Mr. David Marr 703-432-3724
- Lead Financial Manager: Ms. Barbara Fielding 703-432-3733
- Lead Engineer: Mr. Vincent Ellis 703-432-3694
- Lead Logistician: Mr. Richard Fielding 703-432-3690
- Technologist: Mr. George Gibbs 703-432-3676
- ManPower, Personnel & Training: Mr. Richard St. Armour 703-432-3726
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• The next speaker is:

Mark Richter
PM MERS
Infantry Weapon Systems
Product Group 13
PM Marine Expeditionary Rifle Squad

Program Manager: Mark Richter
Description: This program is tasked with the integration, modernization, and portfolio management of everything worn, carried and consumed by the Marine Rifle Squad.

- PM MERS works with all Product Groups and Program Managers within Systems Command.
- Conduct physical system level to component level integration of new and legacy equipment worn by Marines within the Rifle Squad. Provide integration recommendations and attributes for new equipment requirements.
- Gruntworks Squad Integration Facility
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Near-Term Program Initiatives

- **Torso Load Bearing System Integration** - integration and ergonomic initiatives

- **Headborne System Integration** - integration of protection, sensors, communication, and displays.

- **Weapon System Integration** - weight, human factors, C2, and power management on squad level weapons

- **Weight Effects vs Infantry Performance**

- **Mobility Platform Integration**
Future Program Initiatives

- **Top 5 Capability Requirements for the Future Marine Rifle Squad**
  - Sustain and Manage Power
  - Self Aid and Buddy Aid
  - Combat ID
  - Situational Awareness Internal to the Squad
  - Protection against the environment
- **Marine Corps Soldier System program**
- **Technology Harvesting opportunities**
- **Continuous Integration and Human Factors assessments**
Integrated solutions with a focus on human factors is critical for optimizing emerging capabilities across today’s and tomorrow’s Marine Rifle Squad. Design and develop and integrated, competitive product.
• The next speaker is:

Mr. Bill Barnebee
PM Raids & Recon
Infantry Weapons Systems
Product Group 13
PM Reconnaissance and Amphibious Raids

Program Manager: Bill Barnebee
Description: Specialized equipment for use by reconnaissance and other selected USMC units across the range of military operations.

- **Oversee** the acquisition of small craft, and equipment for explosive breaching, individual assault, combatant diving, parachuting, and airdrop delivery systems.

- Constant process of R&D for new initiatives based upon the evolving nature of warfare and life cycle management/sustainment/modification of currently fielded systems

- **PM acquisitions** can be short notice on COTS/NDI programs to long term R&D initiatives for cutting edge technologies.
## Reconnaissance & Amphibious Raids

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Near-Term Program Initiatives

- CDFFM Display
- Tactical Hydrographic Survey Equipment/Tactical Underwater Navigation System (THSE/TUNS)
- Joint Precision AirDrop Systems (JPADS)
- Ultra-LightWeight JPADS (ULW JPADS)
- Joint Precision AirDrop Systems Mission Planner (JPADS-MP)
Future Program Initiatives

- **R&D Investment**
  - Enhanced Underwater Breathing Apparatus (EUBA)
  - Underwater Locator Beacon (ULB)
  - 10K JPADS

- **PMC Investment**
  - 3Q/08 – Combat Diver Full Face Mask (CDFFM)
  - 3Q/08 – High Altitude High Opening Navigation (HAHO Nav)
  - 4Q/08 – Multi-Fuel Engine (MFE)
  - 2Q/09 – Joint Precision Aerial Delivery System (JPADS)
  - 1Q/10 – Tactical Handheld Survey Equipment

- **O&MMC Investment**
  - Life-cycle sustainment for combatant diving and parachute equipment
Open Discussion Topics

- Low cost production of accurate underwater and parachute navigation equipment
- Advanced display technologies
  - Ruggedized for military use in extreme environments
  - Low power use by components,
  - High resolution displays
  - Smaller/lighter batteries that provide extended life
- Textiles that provide environmental and fire retardant protection while ensuring adequate wicking under body armor
  - Full body armor integration with load bearing equipment and the uniform of the operator - a system of systems approach
- Low cost *disposable precision parachute canopy*
• The next speaker is:

Mr. Eric Miller
PM ONS
Infantry Weapons Systems
Product Group 13
Optics and Non-Lethal Systems

Deputy Program Manager: Mr. Eric Miller
PM ONS manages over 40 Optics related and Non-Lethal products with an Approved Acquisition Objective of ~620,000 systems. Our Mission is to:

- Reduce System Size, Weight & Power Draw without losing performance “Lighten the Load”
- Increase Target ID Range performance
- Improve resolution in sensors and displays
- Reduce the logistics tail (Cost of maintaining 40 + programs)
- Equipment Issue (time and footprint for 202,000 Marines)
- Improve Armory staging challenges and problems
### Optics & Non-Lethal Systems

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- **Sniper Capability Sets - Optics**
- **Thermals & Illumination**
- **Optics Modifications and upgrades & Sustainment**
- **Family of Individual Optics – Fusion & Technology Improvements**
- **Non-Lethal Capabilities**
Optics Near-Term Program Initiatives

- Improved Night Vision Demonstrator
- Tritium Replacement in Weapon Sights
- Sensors for Simultaneous Movement & Directed Weapons Fire
- Fused Multi-Spectral Weapon Sight (FMWS) II
- UXGA EBAPS

- Analysis of Alternatives = Family of Individual Optics
Non-Lethal / Force Protection Near-Term Program Initiatives

- Ocular Interruption (OI)
  - Follow-on POR to GBD-IIC
- Mission Payload Module Non-Lethal Weapons System (MPM-NLWS)
- Escalation of Force – Mission Module (EoF-MM)
Optics Future Program Initiatives

- **Family Of Individual Optics (FOIO)** The FOIO development will consist of four programs designed to incorporate multiple functions of current systems into single platform optics.
  - **Helmet Mounted Fused Optical Sight** will:
    - provide increased field of view to increase mobility and situational awareness
    - provide shared imagery from all fused optics
  - **Crew Served Fused Optical Sight** will:
    - provide target identification in all weather conditions
    - operate to maximum effective ranges of the crew served weapons
  - **Individual Weapon Fused Optical Sight** will:
    - provide target identification in all weather conditions
    - operate to maximum effective ranges of the individual Marine’s weapon
  - **Hand Held Fused Optical Sight** will:
    - provide increased field of view to increase mobility and situational awareness
    - provide shared imagery from all fused optics
Non-Lethal / Force Protection Future Program Initiatives

• **Ocular Interruption (OI)**
  – Industry can develop lighter, smaller, and effective eye-safe OI devices

• **Mission Payload Module - Non-Lethal Weapon System**
  – Industry can develop a NL payload that limits risk of permanent injury while maximizing incapacitation
Open Discussion Topics

• Future funding constraints will require innovative solutions
  – Fusion programs for all current optics
  – Developing an eye-safe ocular interruption device for use in Escalation of Force (EoF) Missions
• The next speaker is:

LtCol Tafolla
PM IW
Infantry Weapons Systems Directorate
Product Group 13
PM Infantry Weapons

Program Manager: LtCol Tracy Tafolla
• PM Infantry Weapons procures and is the life cycle manager for the Marine Corps’ small arms weapons

• Pistols, service rifles and carbines, grenade launchers, machine guns, precision rifles

• Main effort: modernization through modifications to legacy systems and procurement of replacement systems
### Infantry Weapons

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- **Infantry Automatic Rifle**
- **Mortar upgrade & Sustainment**
- **Small Arms upgrades & Sustainment**
Near-term program initiatives

- **Digital Mortar Fire Control System**
- **Rapid Engagement Precision Rifle (REPR)**
  - Semi-automatic sniper rifle
  - 7.62mm
  - 1 – 2 MOA accuracy out to 800 – 1000 meters
  - COTS
- **Collapsible stock for M16 rifles**
  - With adjustable cheek piece
- **USMC Long Range Sniper Rifle (LRSR)**
  - Caliber undetermined
  - 1 MOA accuracy out to ~2000 meters
  - Short developmental period
Future program initiatives

• **Improved projectile**
  – Terminal ballistics less affected by intervening barriers (e.g. car windshields and doors) than current service ammunition
  – For calibers currently in use by US military
Open discussion topics