SOPMOD PROGRAM OVERVIEW

19 May 2005

PRESENTED BY:
MR. GUS TAYLOR
SOPMOD PROGRAM MANAGER
SOPMOD Program Overview

Presented to NDIA Small Arms Symposium
Overview Agenda

- Mission
- Structure of the Program
- SOPMOD Block 1 Overview
- Increment 2 Overview
- SOPMOD Future
- Questions and Comments
The SOPMOD Program Management Office at NSWC Crane, IN, will provide standardized, versatile weapons accessories to meet needs across SOF mission scenarios. These accessories will increase operator survivability and lethality by enhanced weapon performance, target acquisition, signature suppression, and fire control. SOPMOD PMO will provide these accessories when they are operationally suitable, affordable, sustainable, and funded.
Capabilities Required:

- **Standardized versatile weapons accessories**
- **Modular** - meets needs across SOF mission scenarios
- **Increased operator survivability and lethality** by enhanced target acquisition, signature suppression, and fire control
- **Evolutionary Acquisition Subprograms:**
  - **Block I (Plus Platform Mods and Phased Replacements)**
  - **Block II (New and Combined Capabilities)**
  - **Block III (Emerging Capabilities)**
TASK ORGANIZATION

ALGL PMO

RD&A & ISEA

SOF LCSM

SOF Small Arms Program Group

RD&A & ISEA

SOF Weapons PMO

SOPMOD PMO

Unclassified
SOPMOD Bosses

- PMS-NSW
  Navy Policy

- RWG
  User Direction

- SOPEO-SP
  Joint SOF Policy

NAVSEA
Surface Warfighting Center Division
Our Quality System is a set of formally documented activities that are carried out to ensure that we satisfy our customers’ requirements.

Our Quality System is based on, and officially certified to, the requirements of ISO 9001-1994, an international standard for quality assurance in design, development, production, installation and servicing.
External Clients

NSWC Crane Supports “Paying Customers” outside of USSOCOM
Block 1

SOPMOD M4 Accessory Kit

Special Operations Peculiar Modification to the M4 Carbine

- Reflex Sight: NSN: 1240-01-435-1916
- ECOS-N: NSN: 1240-01-405-1385
- AN/PEQ-2 Infrared Illuminator: NSN: 5855-01-422-5253
- AN/PVS-17A Mini Night Vision Sight: NSN: 5855-01-474-8904
- Visible Bright Light II: NSN: 5865-01-591-3081
- Backup Iron Sight: NSN: 1005-01-449-0206
- 4X Day Optical Scope: NSN: 1240-01-412-8608
- AN/PVS-14 (PVS14): NSN: 5855-01-482-6164
- (PVS18) NSN: 5855-01-485-7749
- (M69) NSN: 5855-01-485-7755
- Forward Handgrip: NSN: 1005-01-416-1091
- Sound Suppressor Kit: NSN: 1005-01-437-0324
- M4A1 Carbine w/Carrying Handle: NSN: 1005-01-382-0653
- Universal Pocketscope Mount (PVS14): NSN: 1005-01-392-0653
- Grenade Launcher Mount: NSN: 1055-01-416-1090
- M203 9" Barrel Assembly: NSN: 1010-01-416-7422
- Grenade Launcher Leaf Sight: NSN: 1010-01-416-4586
- AN/PSQ-18A M203 Day/Night Sight: NSN: 1010-01-516-0653
- Rail Interface System: NSN: 1005-01-416-1089
SOPMOD Block 1 Modifications

PRIOR

ACOG 4x ANTI-REFLECTIVE DEVICE (ARD)

AN/PEQ 2 PATTERN GENERATORS

MNVS AN/PVS 17 THROW-LEVER MOUNTS

IMPROVED QD SUPPRESSOR ATTACHMENT
M4A1 Carbine Modifications

PRIOR

EXTRACTION PARTS SET #2

SLOPING CHEEKWELD BUTTSTOCK (SCB)

HIGH RELIABILITY MAGAZINES (HRM)
M4A1 Carbine Modifications

NEW

EXTENDED CHARGING HANDLE

REDI-MAG

AMBIDEXTROUS SELECTOR

NAVSPECWARCOM SLING
SOPMOD Phased Replacements

PRIOR

ENHANCED COMBAT OPTICAL SIGHT - NAVY (ECOS-N)

ACOG Reflex Sight (In WARCOM ONLY)

REPLACES or SUPPLEMENTS

VISIBLE BRIGHT LIGHT II (VBL II)

VISIBLE LIGHT ILLUMINATOR

REPLACES or SUPPLEMENTS
SOPMOD Block 1

New Modifications

IMPROVED M203 QD MOUNT

ACOG 4X MINIATURE RED DOT (MRD) PIP

AN/PVS-17A UPGRADE KIT

SUREFIRE VBL II 6-VOLT MINIATURIZATION KITS
New User Assessments

RED DOT MAGNIFIERS

GAS-DEFLECTING CHARGING HANDLES

SCOUT LIGHT
SOPMOD Block 1
New Fielding Adds

SOFT CASES

ECOS-CQB
(Upgraded Holosight)
• Fielded $90M in War Equipment Since 9-11, 107,000 End Items in the Field

• Fielding $47M in New Equipment this Year, 58,000 End Items Inbound
MDNS

Block 1 Phased Replacements

- Enhanced Combat Optical Sight - Carbine (ECOS-C)
- Clip-on Night Vision Device – Thermal (CNVD-T)
- Advanced Target Pointer/ Illuminator/Aiming Laser (ATPIAL)
- Clip-on Night Vision Device – Image Intensification (CNVD-I²)
- Backup Iron Sight II (BIS II)
- Visible Bright Light III (VBL III)
- Mini Night Vision Sight (PIP)
- Rail Interface System II (RIS II)
MDNS Client Weapons

SOPMOD ORD 5 - Core Small Arms (Threshold) ...Design For Use On:
M4A1 Carbine
M203 Grenade Launcher

ORD Annexes - Additional Weapons (Objective)
....Harden For Use On, and possibly develop versions for:

SCAR
CQBR (Mark 18)
MK46 LMG / M249 SAW Machineguns
MK48/ M240-N/M240/M240-B Machineguns
M14 and Mark 14 Enhanced Battle Rifle
AK-47/AK74 Series Assault Rifle
Mk-19 40mm Machinegun
M2-HB .50 Cal Machinegun
M72 LAAW
AT4-CS
MAAWS
MK11/SR 25 Sniper Rifle
MK12 Sniper Rifle
M-24 Sniper Rifle
300 WINMAG Sniper Rifle
50 SASR & M107 50 cal Sniper rifle

MDNS Weapons of Interest

Limited Interest – Generally Covered by UNS (AN/PVS 22), MUNS, DUNS
TOP MAP

SOPMOD Top Map Review
TOP MAP STRATEGY

Block III - Fielding 2007-?
Capstone of Emerging Technologies
Teamed with all Small Arms

Block II - Fielding 2005-2010
System Integrated Capabilities
Teamed with All SOF Weapons

Block I - Fielded 1995-2005
COTS/NDI Capabilities
Teamed with M4A1 Carbine & M203
TOP MAP OVERVIEW

- Overview Top Map Shows Entire System at a Glance

- Five Detailed SOPMOD Accessories Top Maps Show Main Subsystem Categories
  1. Carbine Improvements
  2. Passive Day Aiming Systems
  3. Passive Night Aiming Systems
  4. Active Aiming Systems
  5. Weapons Shot Counters
US SOCOM INTEGRATED WEAPONS TOPMAP

Existing Systems | Emerging Systems | Objective Systems
---|---|---

**SOPMOD ACCESSORY KIT OVERVIEW**

**SOPMOD Increment #1 (1994-2007+)**

**SOPMOD 1**
1994-2008+

**SOPMOD 2: MDNS & WSC**
2004 -2012+

**SOPMOD 3**
2012-???

**SOPMOD 1 & 2 Compatible With both M4A1 Carbine and SCAR**

**SOPMOD 2 Compatible With All SOF Weapons**
USSOCOM INTEGRATED WEAPONS TOPMAP

Existing Systems

Emerging Systems

Objective Systems

|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

- **SOPMOD CARBINE IMPROVEMENTS**
  - USSOCOM ORD Amendment 5, 29 October 1999
  - MDNS CDD approved 28 May 2004

- **RIS**
  - Competition Ongoing

- **BIS**
  - Competition Ongoing

- **HRM (Alum)**
  - Managed By ARMY

- **Slings, Ambidextrous Safety, Stock, Cases, Small Parts, Etc.**

- **RIS 2**
  - System Life Ends When M4A1 Carbine Life Ends

- **HRM (Steel)**

- **CDR USSOCOM Directive May 1999**

- **Amendment 5, 29 October 1999**
  - Competition Ongoing

- **MDNS CDD approved 28 May 2004**
  - Competition Ongoing
### USSOCOM INTEGRATED WEAPONS TOPMAP

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<th>Existing Systems</th>
<th>Emerging Systems</th>
<th>Objective Systems</th>
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<td>SOPMOD PASSIVE DAY SUB-SYSTEMS</td>
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- **USSOCOM ORD Amendment 5, 29 October 1999**
- **MDNS CDD approved 28 May 2004**
- **Competition Ongoing**

**Systems Overview**

- **ACOG Reflex**
- **ECOS - N**
- **ACOG 4x**
- **ACOG 4x Reflex**
- **ECOS-CQB**
- **ECOS-C**

- **ECOS-N**
- **ACOG 4x PIP**
USSOCOM INTEGRATED WEAPONS TOPMAP

Existing Systems | Emerging Systems | Objective Systems

|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

PASSIVE NIGHT AIMING SUB-SYSTEMS

USSOCOM ORD Amendment 5, 29 October 1999

MDNS CDD approved 28 May 2004

Weapon-Specific MNVS (e.g., Crew Served)

MNVS AN/PVS-17A

AN/PVS-17A PIP

Universal Pocketscope Mount

Clip-on Night Vision Device – I2

CNVD Sensor Fusion

Clip-on Night Vision Device - Thermal

Unclassified
CNVD-Sensor Fusion Opportunity

CONCEPT IMAGE

Initial Objectives:
1. Improved Target Acquisition
2. Less than 2 Pounds
3. Less than $20K Per Copy
USSOCOM INTEGRATED WEAPONS TOPMAP

Existing Systems | Emerging Systems | Objective Systems

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WEAPON SHOT COUNTERS

WSC CDD approved Dec 2004

WSM  - Carbine

DATA COLLECTION DEVICE (DCD)

Maintenance Software

Shot Counter

WSM  - Machinegun

DATA COLLECTION DEVICE (DCD)

Maintenance Software

Shot Counter

WSM  - Future Weapons
Army Modular Weapon System (MWS)

Frequent Coordination
Comments / Questions?
NSWC Crane

“Harnessing the Power of Technology for the Warfighter”

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