U.S. Army Special Operations Command

Evolution of USASOC Future Force Capabilities

MAY 2017

Food For Thought

We must **adapt** our current equipment and use commercially available technologies in the near-term to meet current operational needs. We will **evolve** in the mid-term to increase the expeditionary capabilities of the force and address challenges to overmatch. We will **innovate** in the long-term by investment in science and technology for affordable solutions which provide asymmetrical advantages and provide combat, theater foundational and enabling capabilities to the Joint Force.

- **2015 ARMY EQUIPMENT MODERNIZATION STRATEGY**

Agenda

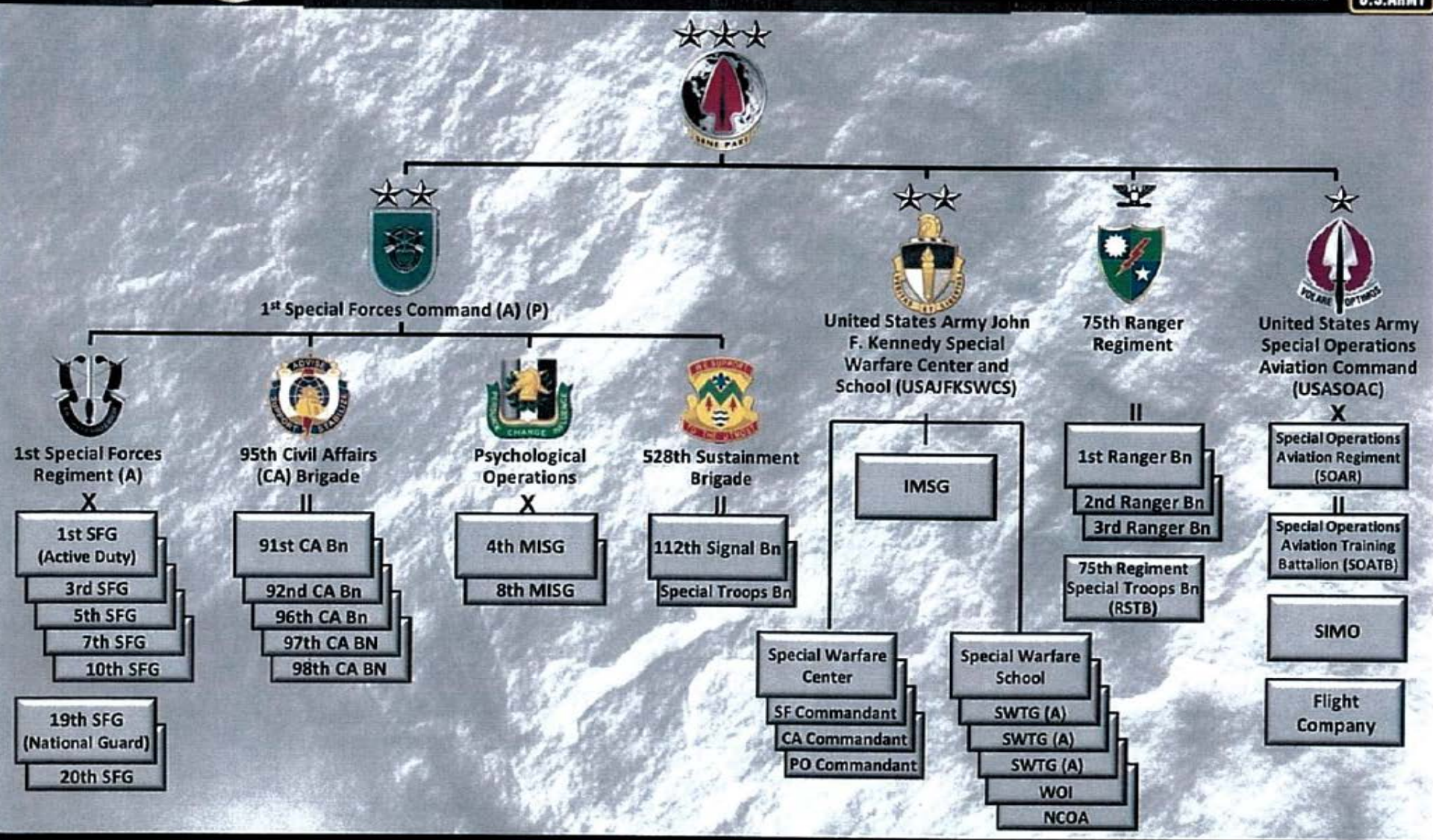
- USASOC Organizational Structure
- Equipment Roadmaps
- Selected Capabilities for Discussion
  - Visual Augmentation Capabilities
  - Mobility Capabilities
  - Lethality Capabilities
- Combat Assault Rifle
  - Today, Tomorrow, and Beyond

The USASOC Team

U.S. ARMY SPECIAL OPERATIONS COMMAND

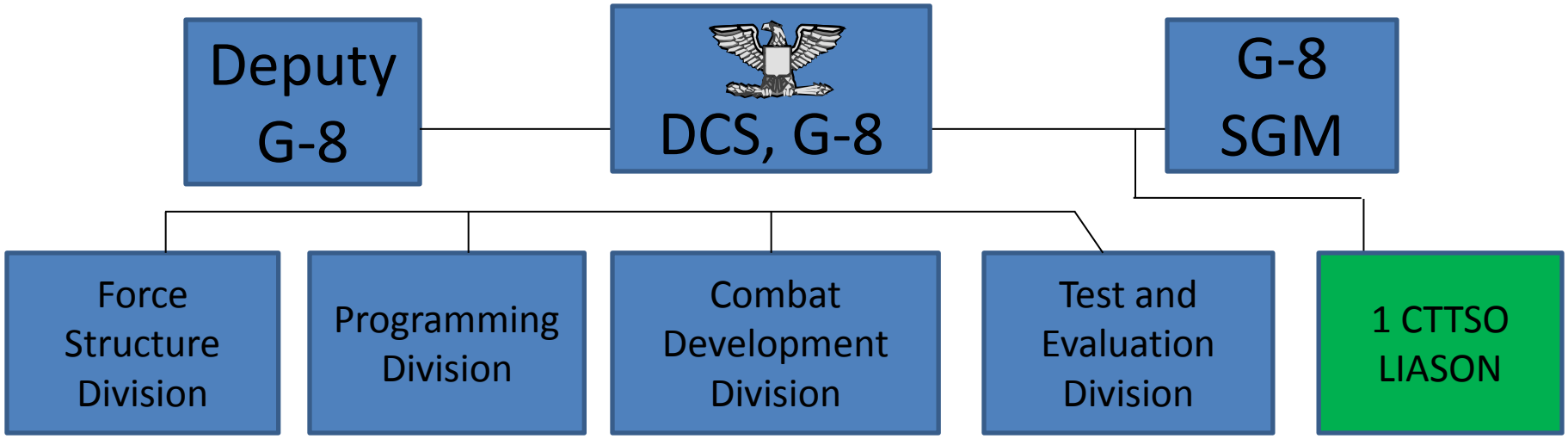
CRITICAL CAPABILITIES
SPECIAL WARFARE // SURGICAL STRIKE

U.S.ARMY

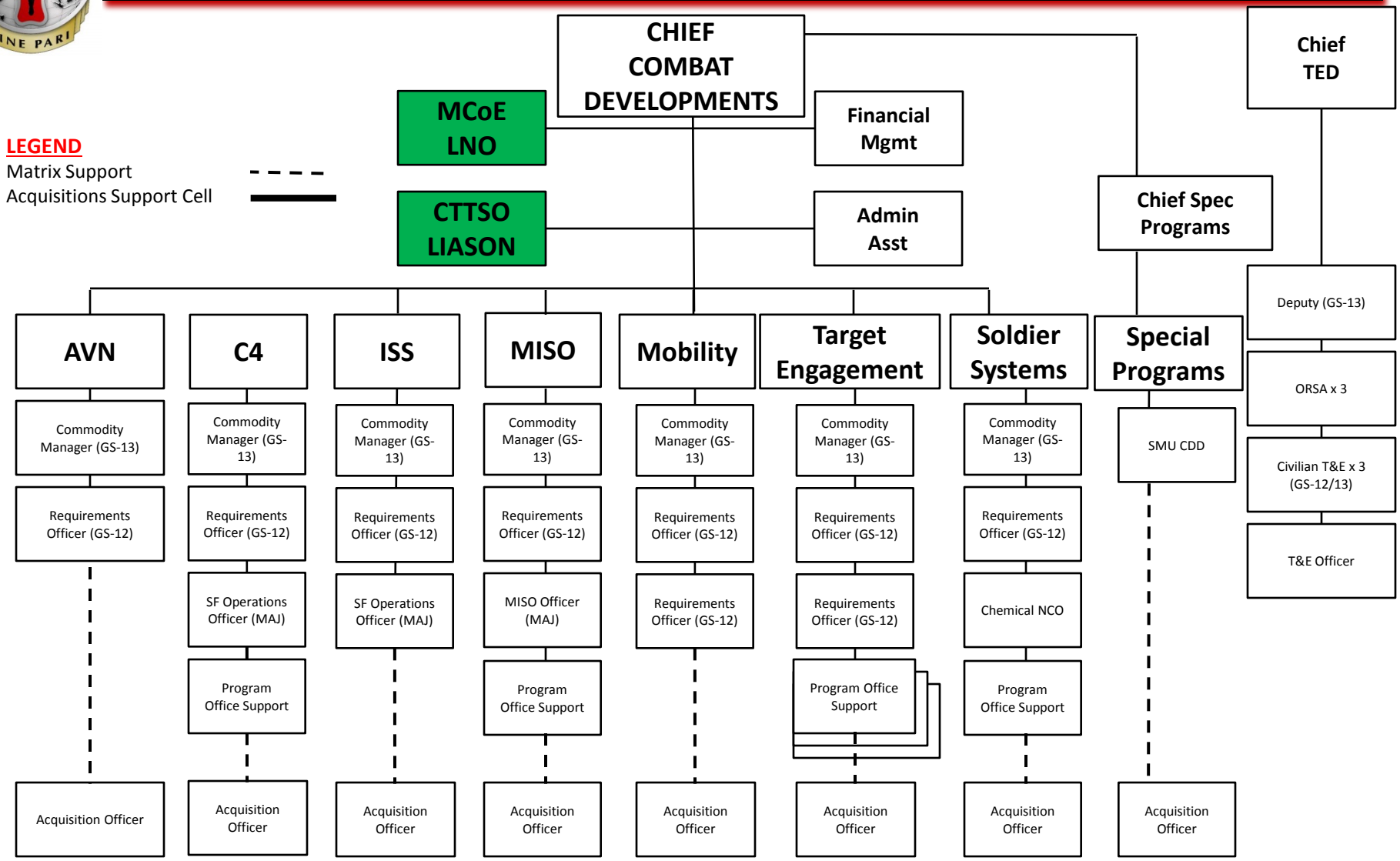


USASOC consists of several Component Subordinate Commands (CSCs) and Component Subordinate Units (CSUs). The CSC/CSUs leverage their primarily CONUS-based structure to provide seamless and persistent special operations support to Joint Force Commanders worldwide.

USASOC G8 ORGANIZATIONAL CHART



USASOC – Combat Developments Organizational Chart



USASOC – VASWA Road Map

Increment II Current to Mid Term

Day Optics

2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020

SU-230A/PVS (1 or 4X)

SU-230B/PVS (1.5 or 6X)

Miniature Aiming Systems – Optics (MAS-O) CPD: 1-6/8x Variable Power Scope

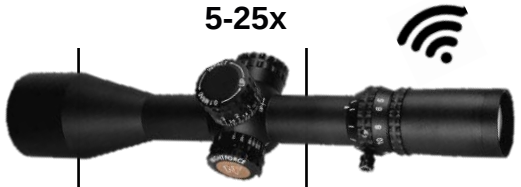
75th Ranger Regiment Interim Solution Aimpoint Micro T2

SU-231A/PEQ (1X)

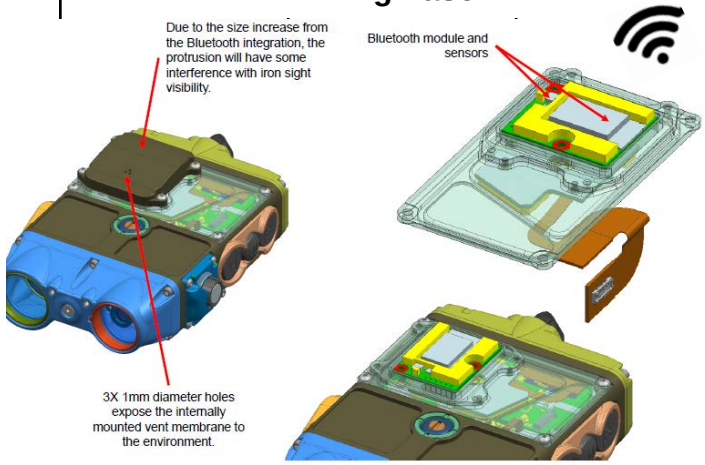
1st SFC Interim Solution M68

PSR Day Scope 5-25x

Miniature Aiming Systems – Optics (MAS-O) CPD: ASR Day Scope 5-25x



USASOC – VASWA Road Map

	Increment II Current to Mid Term					Far Term	
	2014	2015	2016	2017	2018	2019	2020
Lasers	LA-5 E/PEQ 		Miniature Aiming Systems (MAS) CDD		Miniature Aiming Systems - Laser (MAS-L) CPD: Precision Aiming Laser 		

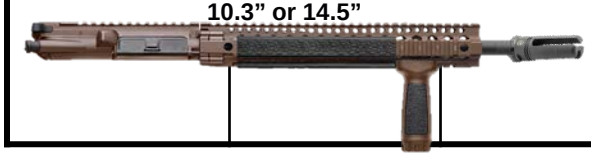
USASOC Weapon Roadmap

Increment II Current to Mid Term | **Far Term**

	2016	2017	2018	2019	2020	2021	2022
Sniper	MK13 M3 MAAWS		ASR 7.62MM, .300NM, .338NM		ASR .338 Anti-Material Capability		
	M107 .50 CAL						
Anti-Armor	M3 MAAWS	MAAWS Munitions		M3E1			
Handgun	M9	P320		Low Vis. Concealable Glock			
Carbine	Upper Receiver Group (URG) 10.3" or 14.5"		Integrated Receiver Group (IRG)				



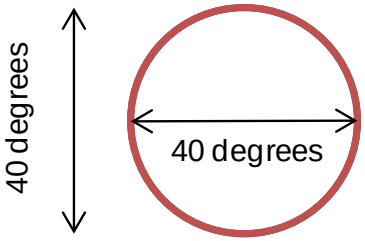




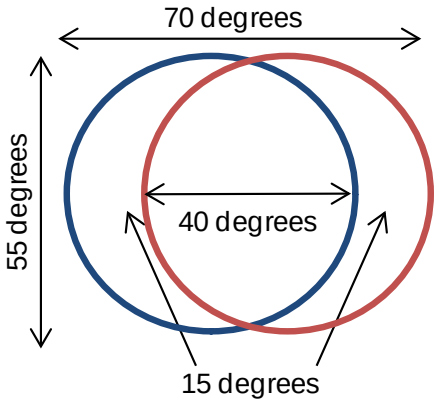
Special Operations Binocular Night Vision Device (BNVD)

Common with PVS-31

BNVD PVS31A



WFOV BNVD



Description

- 70-deg x 55-deg 1.5X more viewing area than 40-deg PVS31A NVG's
- Tube Specifications
  - Resolution 82 line pairs/mm
  - Signal-to-Noise Ratio (SNR) 33.0

  } FOM = 2706
- FOM of 2706 is higher than GPNVG & PVS-31

Notes

- **CTTSO funded;** SOCOM, USASOC, Army Night Vision Labs collaborative effort
- Testing expected this year
- Compatible to PVS31 and accessories
- 70º lateral provides situational awareness
- 55º vertical provides better agility

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Handgun Reflex Sight (HRS)

Miniature Aiming Systems – Day Optics (MAS-D) CPD: Handgun Reflex Sight

The Handgun Reflex Sight (HRS) is designed for rapid day and night pistol target engagements.

The HRS incorporates an illuminated dot or shape imposed on a Wide Field of View (WFOV) lens to increase the speed of target acquisition when maneuvering in confined spaces, or in extremis if the primary weapon malfunctions.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	7893
MARSOC	1737
NSWC	1956
AFSOC	1006
USSOCOM Total	12592

- ✓ ***Military User Assessment complete (October 16)***
- ❑ Release of solicitation (Late May 2017 (T))
- ❑ Proposals Due (June 17)
- ❑ Award (September 2017)

Close Quarters Sight (CQS)

Miniature Aiming Systems – Day Optics (MAS-D) CPD: Close Quarters Sight

The Close Quarters Sight (CQS) is designed for rapid assault rifle engagements in a CQB environment.

The CQS incorporates an illuminated shape and/or dot imposed on a Wide Field of View (WFOV) lens to increase the speed of target acquisition and increase probability of hit (P(h)) between 0-300m day and night.

The objective of the CQS is to eliminate the parallax effect and thermal drift for optimal speed and accuracy.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	14893
MARSOC	1737
NSWC	4570
AFSOC	959
USSOCOM Total	22158

- ✓ ***Military User Assessment complete (March 16)***
- ❑ Release of solicitation (August 2017)
- ❑ Proposals Due (November 17)
- ❑ Award (September 2018)

Squad Variable Power Scope (S-VPS)

Miniature Aiming Systems – Day Optics (MAS-D) CPD: 1-6/8x Squad - Variable Power Scope

The Squad-Variable Power Scope (S-VPS) is designed for assault rifle, light caliber lightweight machine guns and designated marksman rifles.

The Squad Variable Power Scope is a magnified optic designed to improve target acquisition and increase probability of hit (P(h)) between 0-600m day and night.

The Squad Variable Power Scope includes a non-caliber specific reticle, is variable power, and incorporates an illuminated aim-point.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	14919
MARSOC	2039
NSWC	4570
AFSOC	1116
USSOCOM Total	22644

- ✓ ***Military User Assessment complete (Nov 16)***
- ❑ Release of solicitation (Jun 2017 (T))
- ❑ Proposals Due (June 17)
- ❑ Award (February 2018)

Precision – Variable Power Scope (P-VPS)

Miniature Aiming Systems – Day Optics (MAS-D) CPD: Precision Variable Power Scope 3-7x->25x

The Precision – Variable Power Scope (P-VPS) is designed for sniper weapons including Anti-Material Rifles and the future Advanced Sniper Rifle (ASR).

The P-VPS is a magnified optic designed to improve target acquisition and increase Probability of hit (P(h)) between 50-1500m.

The P-VPS includes a non-caliber specific grid reticle, is variable power and incorporates a micro data display to display range finding, ballistics, offsets, and other engagement data within the optics field of view.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	1262
MARSOC	302
NSWC	602
AFSOC	0
USSOCOM Total	2166

- ✓ ***Military User Assessment scheduled (August 17)***
- ❑ Solicitation strategy pending
- ❑ Proposals Due (July 17)
- ❑ Award (January 2018)

Squad Aiming Laser (SAL)

Miniature Aiming Systems – Laser (MAS-L) CPD: Squad Aiming Laser

The Squad Aiming Laser (SAL) provides a modernized, reduced size and weight, replacement for the SOPMOD-MDNS-Advanced Target Pointer, Illuminator and Aiming Laser (ATPIAL).

The system is designed for compact rifles and assault rifles engagements between 0-600m.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	17945
MARSOC	1737
NSWC	5758
AFSOC	1628
USSOCOM Total	27067

- ❑ Release of solicitation (August 2017)
- ❑ Proposals Due (December 17)
- ❑ Award (September 2018)

Precision Aiming Laser (PAL)

Miniature Aiming Systems – Laser (MAS-L) CPD: Precision Aiming Laser

The Precision Aiming Laser (PAL) combines the range finder with a ballistics and environmental sensor/processor for the Advanced Sniper Rifle for 50-1500 meter system accuracy.

The ballistics and environmental processing function will be embedded within the laser device to combine range data, the weapon's ballistics characteristics, and environmental conditions.

The system will be compatible with clip-on night sensors, micro data displays, handheld ballistic/environmental processors, and other visual augmentation and target engagement systems.

Rules of Allocation (ROA)

ORGANIZATION	SYSTEMS
USASOC	1465
MARSOC	302
NSWC	585
AFSOC	0
USSOCOM Total	2352

- ✓ ***Military User Assessment scheduled (August 17)***
- ❑ Solicitation strategy pending
- ❑ Proposals Due (July 17)
- ❑ Award (January 2018)

Ground Mobility Vehicle Version 1.1 (GMV v1.1)

Description

- Small, light weight, (VCW ~7,000lbs)
- Internally Air Transportable by MH47
  - Insertion/forcible entry w/C-130 or H-47 vertical lift
  - Fast roll on / roll off capability (fully loaded w/weapon mounted)
- Carries 3-5 comfortably/ 7 max for short durations
- Modular armor package for small arms protection (tailorable to the threat expected)

Notes

- Weight / Agility / Speed / Protection
- Traded protection
- Increased Speed, Mobility & Transportability
- Tailor-made Command & Control Suite
- Up-armor Capability for Increased Protection
- Multiple Weapon Configurations
- Payload Adaptability
- Currently being fielded to SOF
- Army will field variants to ABN IBCT's

POC: Sean Carter sean.f.carter.civ@mail.mil

.338 Light Weight Medium Machine Gun (LWMMG)

Capability

Reduced weight crew served weapon capable of engaging at distances of greater than 1100 meters.

Small unit ground forces need portability of medium/heavy machine gun for mounted and dismounted operations.

Bridge gap between M240 and M2A1 capability.

.338 Norma: greater lethality and double the range of the 7.62 NATO round.

3 lbs. lighter than the M240B0.

- ✓ CTTSO funded 4 weapon systems and 16K rounds
- ✓ 75th Ranger Regiment and MARSOC user evaluation complete
- ❑ USASOC sponsored Capability Production Document (CPD) planned for 1QTR FY18
- ❑ Polymer ammunition and extended barrel life initiatives are integral to this effort

Family of Low Visibility and Concealable Pistols (FLVCP)

Glock 19 Optics Ready

- Slide cut for Red Dot Sight
- Visible Light

Basis of Issue

UNIT	FOC
USASOC	11,894

Description

FLVCP provides a low vis (unremarkable) and concealed (hidden) ability to maintain a common self-defense capability while dressed in standard U.S. military uniform or indigenous clothing. The FLVCP will be utilized on missions where the overt display of a weapon is undesirable, but the potential threat to U.S. SOF is still present.

Notes

- Moved from request to fielded system in 8 months
- Scope/sight request currently in staffing
- Separate requirement from the Army MHS
  - USASOC Expects to field MHS FY19+

Advanced Sniper Rifle (ASR)

The ASR is a bolt action, multi-caliber sniper weapon system providing reliable and accurate extended range sniper capabilities. The multiple caliber design utilizes one platform, to support precision engagement out to 1500 meters.

ASR will include 7.62mm, 300 Norma Magnum and 338 Norma Magnum caliber capability.

USASOC sponsored program in coordination with US Army PM Soldier Weapons

Rules of Allocation (ROA)

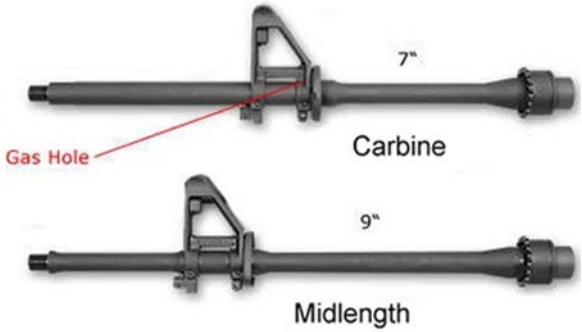
ORGANIZATION	SYSTEMS
USASOC	1230
MARSOC	148
NSWC	398
USSOCOM Total	1776

- ✓ ***Military User Assessment complete (Nov 16)***
- ✓ ***Performance Specifications complete (Dec 16)***
- ✓ ***Ammunition specifications complete (May 17)***
- ❑ Draft Request for Proposal (Aug 17)
- ❑ Official Request for Proposal (Jan 18)
- ❑ Phase 1/2/3 testing (Mar 18 – Dec 19)
- ❑ Fielding (4th QTR FY19)
- ❑ US Army/USMC transition to P2 (FY20)

Current USASOC Upper Receiver Group (URG)

- 14.5” free float barrel
- Mid-length gas system
- Low profile gas block
- M-LOK rail system

- Lower bolt carrier velocity
- Improved dwell time
- Optimized system for M855A1



- Neutral timed WARCOMP muzzle device

Crane currently conducting Mid-Length vs Carbine Length testing to gather data

Precision Intermediate Caliber

- Joint USASOC-US Army PM SW effort to identify, build and certify cartridge
- Doppler radar performance testing (May 17)
- Limited User Assessment (Oct 17)
- Possible upgrade to M110 or CSASS

DA 1000ft 100m Z (Ballpark MVs)

260 Rem/6.5 Creedmoor 22" Barrel					Holds	Holds	1000m	Remaining Energy		
Weight	MV	BC	Goes Trans	Goes Sub	500m	1000m	10mph Wind	E 500m	E 800m	E 1000m
123	2870	0.510	960m	1200m	2.9	10.1	2.5	1024 ftlb	637ftlb	456 ftlb
130	2780	0.560	1000m	1260m	3	10.2	2.3	1118 ftlb	705ftlb	517 ftlb
140	2650	0.607	1000m	1300m	3.3	10.8	2.2	1143 ftlb	745ftlb	561ftlb
147	2600	0.697	1100m	1460m	3.4	10.4	1.9	1256 ftlb	869 ftlb	676 ftlb
308 Win	M110									
175	2600	0.475	760m	980m	3.9	13.6	3.3	1122 ftlb	650ftlb	456 ftlb

- **Doubles hit probability at 1000 meters**
- **33% increase in effective range**
- **30% increase in energy on target**
- **40% decrease in wind effect**
- **Decreased recoil**

Next Gen Intermediate Combat Assault Rifle

- Improved weapons, optics, and ammunition increase the Assault Rifle capability from ~200 to ~600M when employed in relevant combat conditions

- What implications does this have?

- ARE WE READY?

DOTMLPF-P Challenges for the Future

- **Doctrine –** How will we fight in the future?
- **Organization –** 600M capability for all? Structure Changes?
- **Training –** Changes to BRM. What about ballistic calculators, LRF, improved sighting systems?
- **Materiel –** Solutions ready now, subject to testing. How do we integrate components from across industry to optimize the system?
- **Leadership & Education –** Unit employment?
- **Personnel –** What attributes are needed for future marksman?
- **Facilities –** Ranges support realistic 600 meter live training?
- **Policy –** What policies need to change to work with allies, resource our forces, and train/fight effectively?

Questions