



SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

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Program Manager

SOF WARRIOR
PM – AMMO & WEAPONS



SOF WARRIOR

PM – AMMO & WEAPONS MISSION



Develop, procure and sustain Weapon, Visual Augmentation, Fire Support capabilities, and Munitions for specific missions when Service solutions do not meet SOF requirements.

SOF Unique Attributes/Focus:

- **VAS: EXPAND LIMITED VISABILITY ADVANTAGES** over Sophisticated Threats
- **Fire Support Systems: REDUCE THE WEIGHT** of Pointers, Markers, Target Location Devices. Develop more **PRECISE AND ACCURATE** munitions systems
- **Weapons:** Improve suppressors (flash, sound & glint) for **REDUCED SIGNATURE** to obtain/maintain **LOW VISIBILITY**
- **Ammunition: COVERTNESS** through Flash-less powder, subsonic munitions; accurate across all temperatures, enhanced lethality

SOF WARRIOR

ACQUISITION PHILOSOPHY



- Maximize utilization of Service Common material solution
 - Fully integrated in the requirements/development process via multiple joint venues/IPTs
- Build SOF Specific material solution
 - Competitive Procurements via 5 Year IDIQ Contracts
 - Focused on SOF-specific missions
 - Transition from SOF to regular forces
- Modified Commercial Off the Shelf

AMMO & WEAPONS PORTFOLIO



Night Vision Goggle w/ Clip-on Thermal Imager

- Visual Augmentation Systems
 - Helmet Mounted: Image Intensified (I²) Binocular, Clip-On Thermal Imager, Fusion
 - Mounted: Clip-On Night Vision Devices, Direct Optic Magnified Sights, Red Dot Aiming Devices
 - Handheld: Thermal Imagers, Laser Markers

Handheld Laser Marker



MK13 Sniper Rifle w/ Improved Night Observation Device

- Weapons and Accessories
 - Combat Assault Rifles
 - Machine Guns
 - Sniper Rifles
 - Laser Pointers, Illuminators, and Suppressors



Combat Assault Rifle



SOF Laser Acquisition Marker

- Ammunition, Demolitions and Breaching
 - Small Caliber Ammunition
 - Shoulder Fired Systems
 - Aviation Ammunition
 - Demolitions and Pyrotechnics



AC-130 ammo



Advanced Lightweight Grenade Launcher



Precision Sniper Rifle

SOF WARRIOR

VAS FUTURE

A Globally networked force of SOF, interagency, allies and partners able to rapidly or persistently address Regional contingencies and threats to stability

USSOCOM Strategy 2020

Mission Tailorable

Reliable & Sustainable
in Austere Environments

Integrated / Interoperable system

Energy Efficient
Multi-spectral Sensors

Smaller Lightweight
Integrated Systems

SOF Warrior



Furthering Visual Augmentation Capabilities:

- Innovative solutions with increased reliability and bandwidth
- Increased resolution and field of vision for rapid threat detection and identification
- Information from multiple sources integrated on helmet mounted displays
- Augmented Reality for navigation and improved situation awareness
- Color and enhancements to increase range and capability to see in all lighting conditions, fog and obscurants
- Big Data integration to collect, process, utilize facial recognition and biometrics
- Long duration run-time

SOF WARRIOR

OPERATOR-BOURNE VAS



Goal: Enable the Operator to exploit information gained throughout the sensor spectrum

See in all lighting conditions, fog and obscurants

Undetected Day/Night Use

Integrated / Interoperable system

Energy Efficient Multi-spectral Sensors

Reduce SWAP-C



Furthering Visual Augmentation Capabilities

- Integrated processing data control
- Combat Ready Display
- Situational Awareness
- Power Generation
- Heads Up Display
- Increased resolution and field of vision for rapid threat detection and identification
- Information from multiple sources integrated on helmet mounted displays
- Augmented Reality for navigation and improved situation awareness

VISUAL AUGMENTATION ROADMAP



FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20

Head-Mounted



AN/PVS-15A



Follow-On BNVDs



Clip On Thermal Imager (COTI)

Follow-On COTI

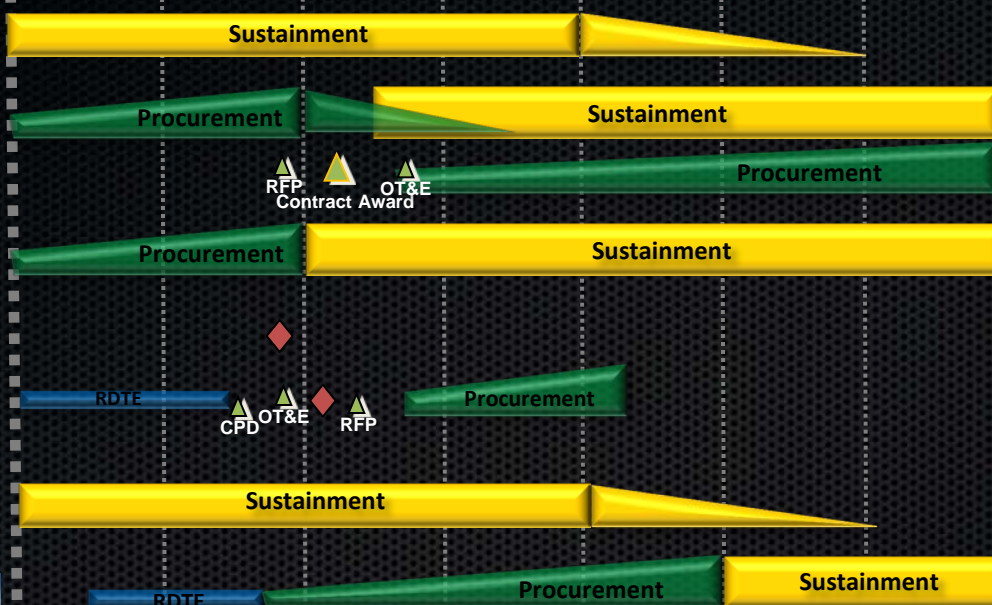
COSI RIF



AN/PAS-24

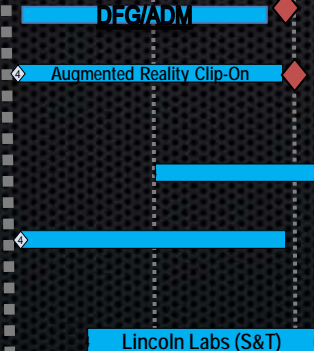


HHI-MLR



Capability Development

- Adaptive multi-spectral night vision capability
- Ability to import/export data to for enhanced SA (wireless)
- Day HUD with import data capability
- Ability to jam enemy analog image intensification devices
- Ability to provide facial recognition at max range (1500-2000m)
- Seamless transition to weapon sight while wearing NODs
- True Color Vision
- Universal Wireless Power
- Increased POV w/o loss of resolution



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JOINT FIRES

Goal: Location and Targeting with information distribution with minimal effort by the SOF operator



Information Sharing

Integrated / Interoperable systems

Integrated Systems

Lower Power Lasers and Extended Viewing Range

Reduction of Size/Weight/Power and Ergonomics

Laser Marking and Designation Interchangeability



Furthering Visual Augmentation Capabilities

- Multifunctional Devices
- Situational Awareness
- Stabilization
- Multiple Laser Spot Tracking

Separate Distinct Systems

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FIRES CAPABILITY ROADMAP



FIRES

FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20

Sustainment

SPOTR



Sustainment

RDTE

HLM II



Procurement

Sustainment

RDTE

Designators
PEQ-1C



Sustainment

RDTE

GEO Location
STLD



RDTE

Procurement

PLRF



Procurement

JTAC SIMS

Sustainment

SOF MODS

Capability Development

- Multifunctional Devices(SWaP)
- Situational Awareness
- Stabilization
- Accuracy

Terrestrial/Celestial/All Weather/All Day



SOF WARRIOR

WEAPON-MOUNTED VAS



Primary Goal: Increased accuracy, marking, detection, identification, and engagement ranges
Secondary Goal: Integrated, power sharing capability across multiple spectrums

See in all lighting conditions, fog and obscurants

Undetected Day/Night Use

Integrated / Interoperable system

Energy Efficient Multi-spectral Sensors

Reduce SWAP-C



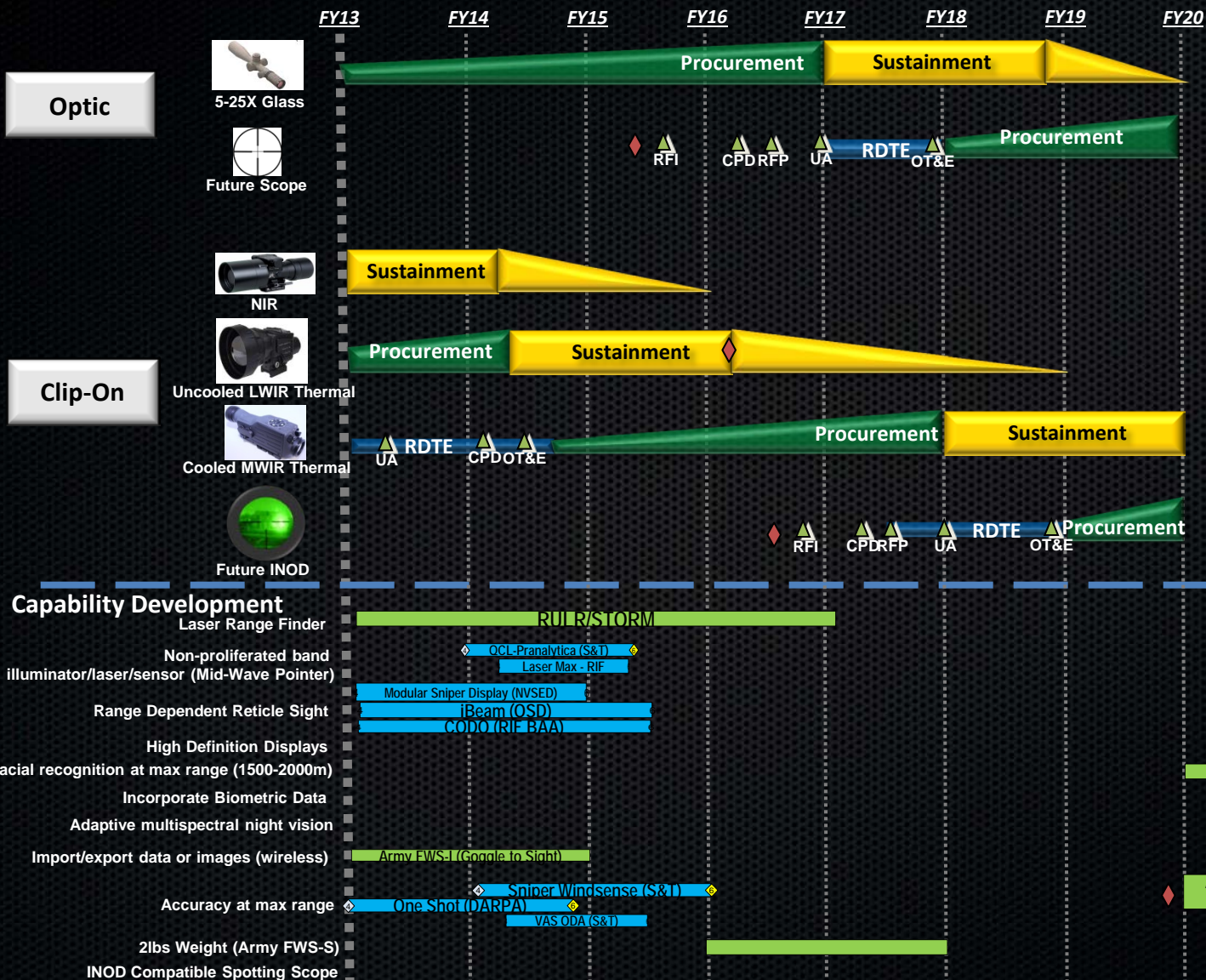
Furthering Visual Augmentation Capabilities

- Integrated processing data control
- Wireless Data Sharing
- Power Sharing
- Increased resolution and field of vision for rapid threat detection and identification
- Incorporate facial recognition and biometrics
- Selectable wavelength to facilitate identification of friendly forces and target marking

Weapon Mounted distinct systems

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SNIPER CAPABILITY ROADMAP



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ASSAULT CAPABILITY ROADMAP



FY13 FY14 FY15 FY16 FY17 FY18 FY19 FY20

Optic



ECOS-CQB



ECOS-C



ECOS-O



NIR

Clip-On



Thermal



Future Clip On

Laser



LA-5 ATPIAL



Future Laser

Light



Visible Bright Light

Capability Development

Laser Range Finder

Undetected Pointer

Laser SWaP-C, Target Marking

IR laser illuminator adjustable for short-range urban to long-range in one

Laser Selectable Wavelength to Facilitate IFF

Long Range - image data transmission for comm/intelligence gathering

Range Dependent Disturbed Reticle

Adaptive multispectral night vision

Import/export data or images (wireless)

Sustainment RFI CPDRFP UA Procurement

Sustainment RFI CPDRFP UA Procurement

RDTE OT&E Procurement Sustainment

Procurement Sustainment

Procurement Sustainment

RFI CPDRFP UA OT&E Procurement

Sustainment

RFI CPDRFP UA OT&E Procurement

Sustainment RFI CPDRFP UA OT&E Procurement

RUI R/STORM (Army)

DPILs (NVESD)

Mini-Aiming Laser (S&T)

Thermal Beacon (S&T)

Modular Sniper Display (NVESD)

iBeam(S&T)

CNVD-SF (NVESD-CWP)

Army FWS-I (Goggle to Sight)



SOF WARRIOR

CREW-SERVED CAPABILITY ROADMAP



SOF WARRIOR

WEAPONS ROADMAP



- Improve Suppressor Technologies Across FYDP
 - Small Arms Signature Reduction Program – Noise/Flash/Extended Service Life – Development FY15-16 Production FY16-20
- New Procurement Opportunities
 - Clandestine Breakdown Sniper Rifle
 - Personal Defensive Weapon
- Sustain Fielded Weapons Across FYDP
 - Assault – Sustain CAR MK17, SOPMOD M4A1
 - Sniper – Field MK21/PSR, Sustain – MK13, MK15, MK20
 - Crew Serve – Sustain MK44, MK46, MK48, MK47

MUNITIONS ROADMAP



- Improve / Sustain / Transition Fielded Munitions
 - Lightweight Ammunition (5.56, 7.62, 300WM, 50 cal)
 - Improved Accuracy/Increase Lethality (300WM, .50 cal)
 - 40mm Door Breaching Round / Airburst Round
 - Enhanced/Multi-bang Flash Bang Grenades

QUESTIONS?



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