



S.C.A.R.

S.O.F. COMBAT ASSAULT RIFLE



OPERATOR ENVISIONED, TESTED, CHOSEN



18 May 2006

Distribution Statement A: Approved For Public Release; Distribution Unlimited



SCAR



Operator Envisioned, Tested, and Chosen



**SCAR Gives The SOF Operator A
Weapon That Is Specifically Designed
For SOF By SOF**



Briefing Outline



- ➡ Why SCAR?
- ➡ What is SCAR?
- ➡ SCAR Way Ahead
- ➡ Review of Test Data
- ➡ Program Summary



Why SCAR?



- ➊ SCAR Program Fills a Need That Years Of SOF Operator Experience Tells Us Still Exists
- ➋ A Multipurpose Weapon of Choice *With* Choices for Today's And Tomorrow's Battlefields
- ➌ SCAR Program Will Field The Best Possible Weapon System To The SOF Operator



USSOCOM Is Leading The Next Evolutionary Step In Small Arms Development...At A Revolutionary Pace



SCAR Weapons Replacement



MK18



M4A1



MK12



MK11

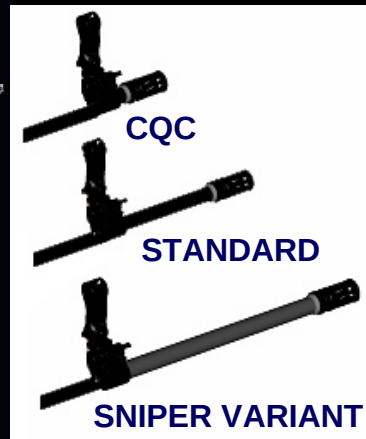


M14/EBR



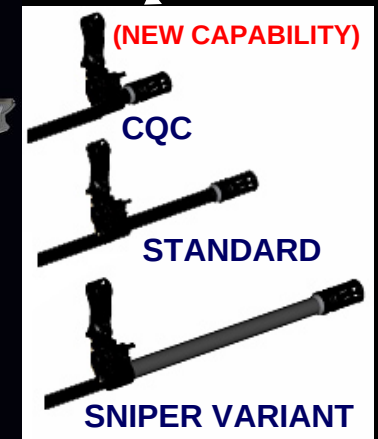
SCAR LIGHT

5.56 mm



SCAR HEAVY

7.62 mm



What Is SCAR?



SCAR LIGHT
5.56 mm

Parts commonality: 60%
Ergonomic commonality: 100%

SCAR HEAVY
7.62 mm

CQC

STD

SV

SV

STD

CQC



Parts commonality: 90%



Parts commonality: 90%



SCAR Future Capabilities



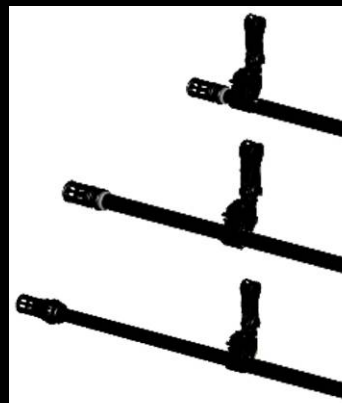
SCAR LIGHT

5.56 mm



SCAR HEAVY

7.62 mm

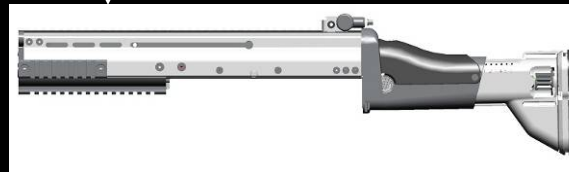


0.87" In Length & 0.1 lbs From A *Common* Upper Receiver

Choose Caliber & Barrel Type



Match Bolt To Caliber



Match Trigger Module to Caliber



EGLM & FCU



- EGLM Provided With 40mm Weapon Module, Fire Control Unit Increment I (Mechanical With Integrated Laser/MRD Sight) And Stand Alone Stock
- Weapon: Left Or Right Hand Operation, Locked Breach, Provides Capability To Fire All 40mm Rounds And Future Medium Velocity Ammunition
- FCU Increment I: Mechanical With Integrated Laser/MRD Sight
- FCU Increment II: Laser Range Finding/Pointer To 600 Meters With Ballistic Solution, Quick On/Off With No Effect On Host Weapon Zero



EGLM & Fire Control Unit



Compatible With
Current NSN 4X
Day Optical Scope

Laser Range Finding/Pointer
To 600 Meters With Ballistic
Solution; 25 Programmable
Solutions



Trigger Accessible
Without Changing Hand
Position On The Pistol
Grip

Chosen By Operators For Best
Ergonomics

Forward & Left/Right Barrel Opening

Open Architecture Design
For Future Medium Velocity
Rounds And The Use Of
Longer Cartridges (Ex: ILL)

Allows Automatic Case
Extraction & Ejection

Rotary Locked Barrel

Added Safety & Durability

3 Specific Trigger Housings

- SCAR - L
- SCAR - H
- Stand Alone



Program Highlights



SCAR - Light (5.56mm)



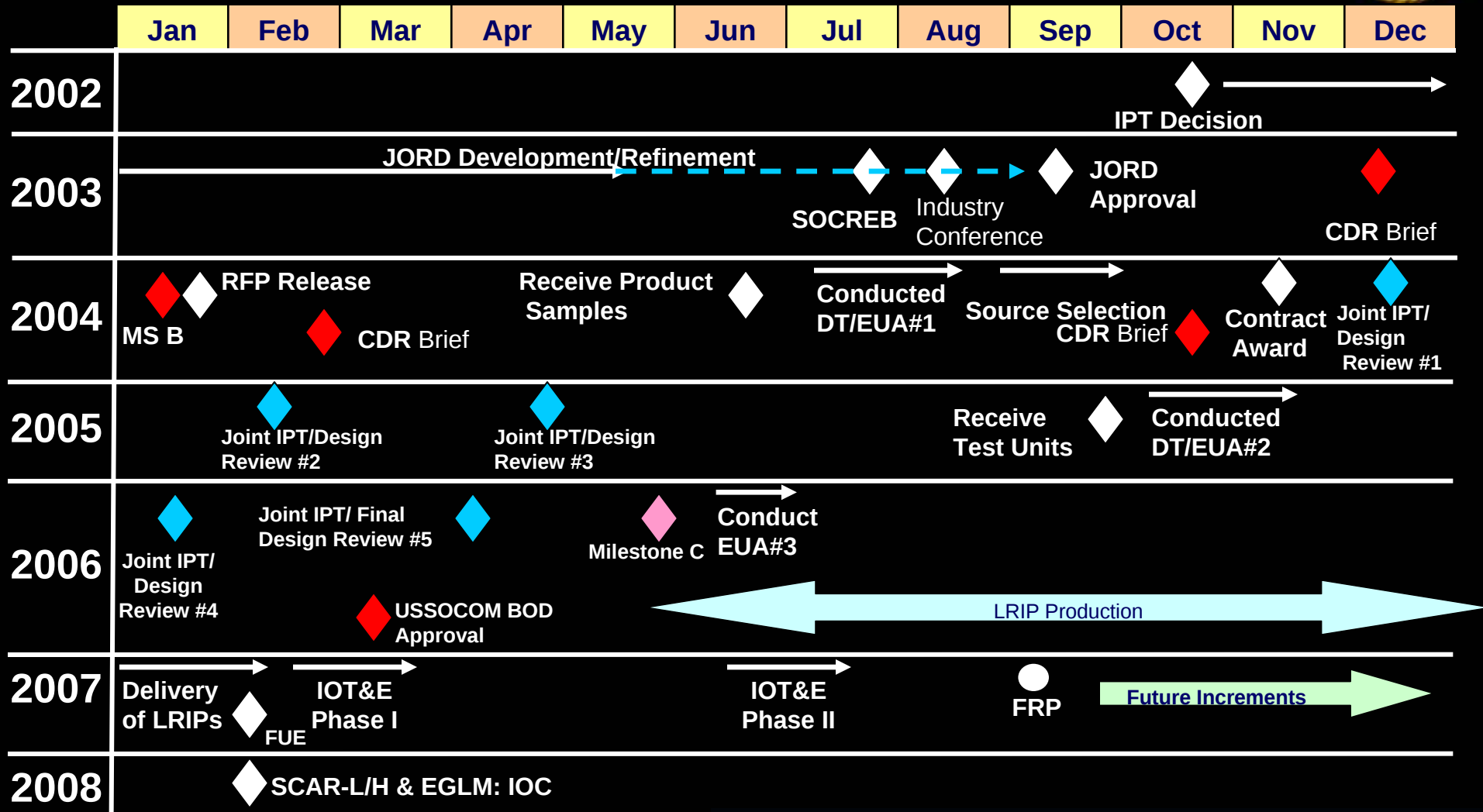
SCAR - Heavy (7.62mm)

- ➡ Conducted In A Full And Open Competition
- ➡ Continuous Operator Involvement
- ➡ Less Than 10 Months From Solicitation Issue To Contract Award
- ➡ Contract Awarded 5 November 2004 To FN Herstal
- ➡ Accelerated Development Of SCAR-H And EGLM to Coincide with SCAR-L
- ➡ Completed Phase 2 Testing in November 05 with 16 Operators
- ➡ Milestone C Authorization Pending To Support LRIPs
- ➡ USSOCOM Investment of Approximately 3.0M To Date
- ➡ True Teaming Triad Between Operators, Government And FN





Program Development/Way Ahead





SCAR/EGLM



Developmental Test Overview



SCAR-L Technical Data



SCAR-L 5.56mm STD



**SCAR-L 5.56mm CQC
with EGLM mounted**



SCAR-L 5.56mm CQC

FEATURES

Operating Principle

Firing Modes

Feed System

Rate of Fire

Accuracy

Weight Without Magazine With Iron Sights

Maximum Overall Length

Minimum Overall Length

Maximum Overall Length, Stock Folded

Barrel Length

CQC	STD	SV
Gas Operated Short Stroke Piston, Rotating Bolt		
Single Shot, Full Auto		
30 rds, M16 Magazine Type		
550-600 Rounds Per Minute		
0.5 to 0.7 MOA>Ammo @300m		
6.73 lb	6.97 lb	7.56 lb
29.78 in	33.56 in	38.00 in
28.25 in	32.10 in	36.38 in
20.88 in	24.63 in	29.00 in
9.96 in	13.82 in	18.00 in



SCAR-H Technical Data



SCAR-H 7.62mm STD



SCAR-H 7.62mm CQC

FEATURES

Operating Principle

Firing Modes

Feed System

Rate of Fire

Accuracy

Weight Without Magazine With Iron Sights

Maximum Overall Length

Minimum Overall Length

Maximum Overall Length, Stock Folded

Barrel Length

CQC	STD	SV
Gas Operated Short Stroke Piston, Rotating Bolt		
Single Shot, Full Auto		
20 rds, FAL Box Magazine Type		
550-600 Rounds Per Minute		
0.5 to 0.7MOA > Ammo at 300 meters		
6.80 lb	7.16 lb	7.64 lb
30.50 in	36.39 in	41.24 in
29.00 in	34.88 in	39.74 in
21.63 in	27.50 in	31.74 in
9.96 in	15.75 in	18 to 20 in





SCAR DT KPP Data Summary



KPP's	THRESHOLD AND OBJECTIVE	EX16 SCAR L (S)	EX17 SCAR H (S)
Adapt - Barrel Change	Barrel Change By Operator W/O Headspace Adjustments Within 20min (T), Within 5min (O)	MEETS (T) REQT	MEETS (T) REQT
Reliability	SCAR L/H Using M855&M80 Ball, Shall Have A Mean Round Between Stoppage (MRBS) Of 2,000rds (T), 8,000rds (O)	MEETS (T) REQT	MEETS (T) REQT
Con't...	Shall Have A Mean Round Between Failure (MRBF) Of 15,000rds (T), 35,000rds (O)	MEETS (T) REQT	MEETS (T) REQT
Con't....	Functional System Service Life, W/O Overhaul of 15,000rds (T), 90,000rds (O)/Barrel Life of 15,000rds (T), 35,000rds (O)	MEETS (T) REQT	MEETS (T) REQT
Acceptance Accuracy	Baseline Ammunition Extreme Spread Plus 1 MOA @ 300yds (T), 0.25MOA @ 300yds (O)	MEETS (T) REQT	MEETS (T) REQT





SCAR DT APP Data Summary



APP's	THRESHOLD AND OBJECTIVE	EX16 5.56mm	EX17 7.62mm
Firing Rate	The SCAR shall have a rate of fire optimizing the reliable function of the weapon system with and without sound suppression (T).	MEETS (T) REQT	MEETS (T) REQT
Drain Time	SCAR L/H shall require no more than 2 sec drain time after Full submersion in, and removal from sea water after firing Mode selection (T), Zero drain time (O)	MEETS (T) REQT Standard MEETS (O) REQT CQC	MEETS (T) REQT
Size	SCAR-L shall be collapsible or foldable to lengths not greater than 29.9" folded/collapsed and 33.6" extended with standard barrel (T). SCAR H collapsible or foldable to lengths 30.3" folded/collapsible and 40.2" extended with standard barrel (T).	MEETS (T) REQT	MEETS (T) REQT
Weight	The SCAR-L without magazine, shall weigh no more than 7.25lbs unloaded (T), less than 6.6lbs unloaded (O) The SCAR-H shall weigh no more than 9 lbs (T), less than 8 lbs (O).	MEETS (T) REQT	MEETS (O) REQT
Jump Bag	SCAR L/H Shall Utilize the Current In-Service Jump Bag (T)	MEETS (T) REQT	MEETS (T) REQT



EGLM Technical Data



SCAR-L w/EGLM & FCU



EGLM On Stand Alone Stock



EGLM w/Trigger Assembly

FEATURES	EGLM
Mechanism	Slide Action, Rotary Locking- DA Trigger
Weight (w/o Sight Assembly)	3.02 lb / Launcher
Length (w/ Trigger Assembly)	16 in / 9in Barrel
Fire Control Unit (Increment II)	Laser Ranging/Pointer (600m), 40mm Ballistic Solution
Modularity	Mounts To SCAR-L/H, And Stand Alone Stock
Stand Alone Stock	20.25 – 26.63 in Long / 2.74lb





EGLM DT KPP Data Summary



KPP's	THRESHOLD	EX13 EGLM
1.	Single Shot, 40mm Low Velocity (40x46mm)	MEETS REQUIREMENT
2.	Attaches To SCAR L/H & Stand Alone Stock Via Mil Std 1913 rail.	MEETS REQUIREMENT
3.	Fire Control Unit (Increment II) w/Day – Night Targeting and Ranging Capabilities	Meets Concept – Operational Issues w/ Size, Weight, Ease of Use and Overall Performance
4.	Interoperable w/U.S. 40mm Ammo And SOPMOD Equipment	MEETS REQUIREMENT
5.	Safe During Transport, Storage, And Use	MEETS REQUIREMENT
6.	Design Shall Not Limit Length Of 40mm Round	MEETS REQUIREMENT
7.	Design Shall Have A Mechanical Safety	MEETS REQUIREMENT





EGLM DT APP Data Summary



APP's	Requirement	EX13 EGLM
Size/Weight	Detached, Shall not Exceed 16in (T) Stock Assembly 3.5lb (T) 1.0lb (O) Weapon & Fire Control 6.5lb (T) 2.0 (O) Stand Alone Weight 10.0lb (T) 4.0lb (O)	MEETS (T) REQUIREMENT
Trigger	Incorporate Double Action Trigger (T)	MEETS (T) REQUIREMENT
Fire Control Unit (Increment II)	Manual Input of Range (T) Range from 40 to 600m, Day/Night (T) Range Target every 2 Seconds (O) Vertical Elevation Compensation (O)	MEETS (T) REQUIREMENT MEETS (T) REQUIREMENT MEETS (O) REQUIREMENT MEETS (O) REQUIREMENT
Accuracy	8/10 Hits to 200m (T), 6/10 Hits from 200-300m(T) 8/10 Hits Point Target 36 by 36in @100M (T)	MEETS (T) REQUIREMENT
Reliability (Launcher)	MRBF Class 1 – 1,200rds 3 – 3,000rds 2 – 1,500rds	MEETS (T) REQUIREMENT
Service Life	5000 rd Effective Barrel Life (T) 5000 rd System Service Life (T)	MEETS (T) REQUIREMENT





Summary



- ➡ **Full & Open Competition**
- ➡ **Designed For SOF By SOF**
- ➡ **Less Than 10 Months From Solicitation Issue To Contract Award**
- ➡ **45 Months From Solicitation Issue to Full Rate Production**
- ➡ **5 Joint IPTs/Design Reviews With SOF Operators, Combat Developers, Government And FN Personnel**
- ➡ **Modular Concept Supports Future Growth**
- ➡ **USSOCOM Investment Of Approximately 3.0M To Date**





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