

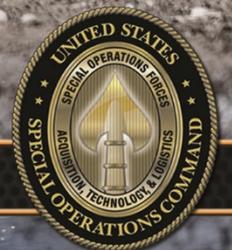
SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE



LtCol Tom Atkinson
Program Manager
**FAMILY SPECIAL
OPERATIONS VEHICLES**

Mobility to Penetrate the Shadows

SOF WARRIOR



Mission Statement



Light
855

Commercial
509

Medium
1,011

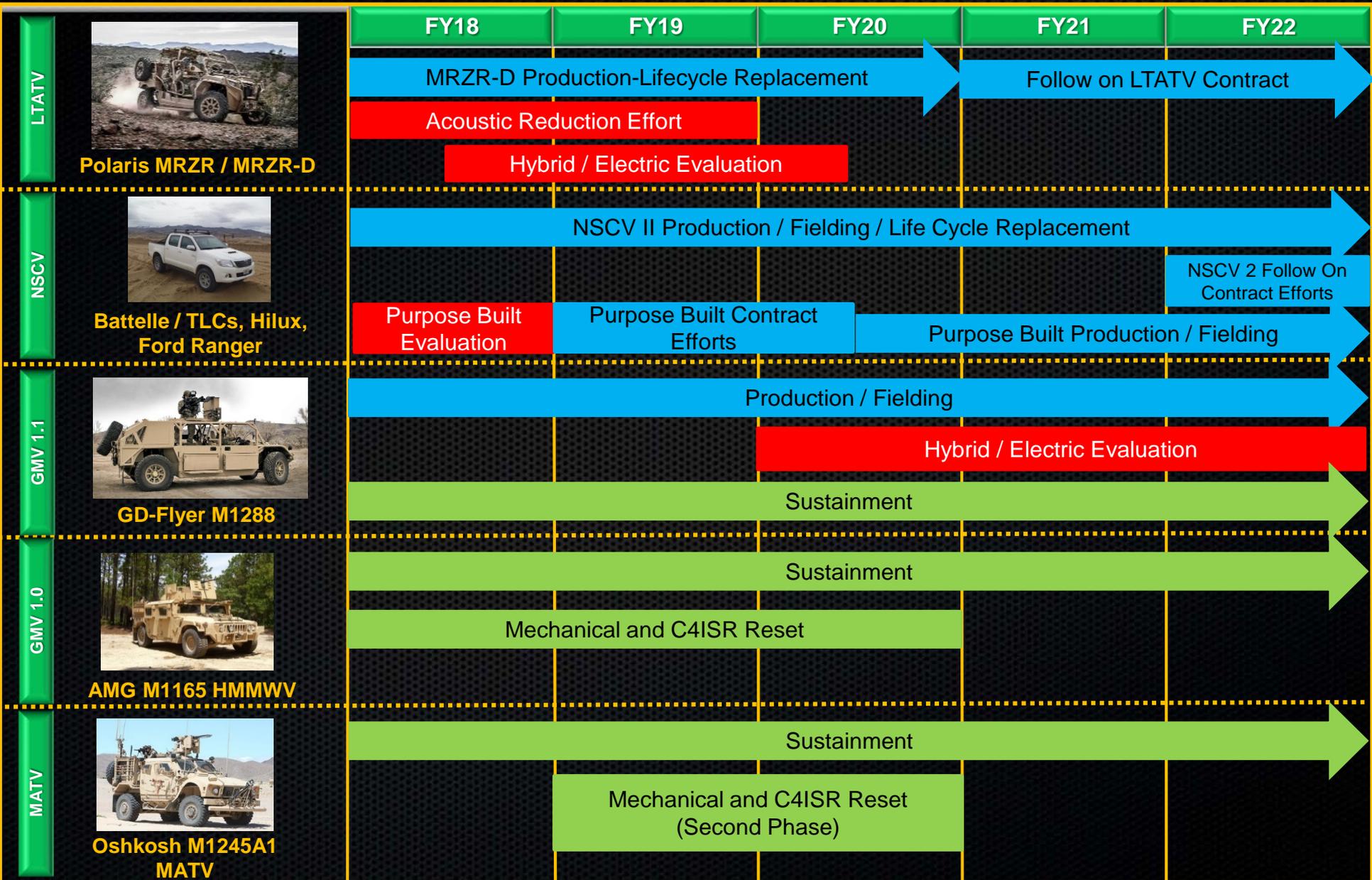
Heavy
429

Provide required SOF-unique ground mobility capabilities and logistics to USSOCOM operators through rapid and focused acquisition.



**2,804 SOF Modified
vehicles
Deployed Worldwide**

FOSOV Portfolio Overview



Light Tactical All-Terrain Vehicle



System Description / Mission

- A modified commercial-off-the-shelf (COTS) 4x4, side-by-side seat All-terrain vehicle that is internally air transportable via V-22, H-53, and H-47.
- Additional modifications include litter carrying capability, run flat tires, IR light system, winch for self-recovery, and weapons mount.

Key Points / Attributes

- MRZR2
 - VCW: 1624 lbs.
 - Length: 115.4', Width: 59.5"; Height: 73.6"
 - Unit Cost: \$30,000
- MRZR4
 - VCW: 1937 lbs.
 - Length: 141.5', Width: 59.5"; Height: 73.8"
 - Unit Cost: \$32,000

Performance

Range	75 miles (T); 150 miles (O)
Speed	45 mph (T); 60 mph (O)
Internal Air Transport	V-22 / H-47 / H-53
Rollover Protection	115% Gross Vehicle Weight
Air Drop Certification	C-130 / C-17
Max Curb Weight	2,500 lbs (T); 2,000 lbs (O)
Payload	2-seater: 1,000 lbs / 4-seater: 1,500 lbs
Acceleration	0-30 MPH in 10 Sec
Water Fording	24 inches @ 5 mph
Environment (temp / elev)	-25 F to 120 F / 10,000 ft
Signature Management	@ idle: 100 m (T); 30 m (O)
(Gas/Diesel) inaudible to	@ 10 mph: 200 m (T); 100 m (O)

LTATV Business Opportunities

- **Signature Management**
Reduction of Visual, Audible and Thermal Signatures
- **Mobility**
Hybrid / Electric / Fuel Cell Advanced Powertrain Technology
 - Silent LTATV Rodeo projected in FY18
 Drive By Wire Capability
 Longer Lifecycle or Recapitalization
 Light Vehicle Safety Improvements and Accessories
- **C4ISR**
Modular, Reconfigurable C4ISR

ACQUISITION STRATEGY

- 5-Year IDIQ Contract
- Single Vendor Award

PERIOD OF PERFORMANCE

- 5 Years
- July 2015 – July 2020

MILESTONES

- Contract Award: July 2015
- Start Fielding LTATV-Diesel : FY17

POINT OF CONTACT

- 813.826.9482 (TILO)

FUNDING

- \$6.5M/Year

CURRENT CONTRACT/OEM

- Polaris Defense (Medina, MN)

Ground Mobility Vehicle 1.0



System Description / Mission

- The Ground Mobility Vehicle 1.0 (GMV 1.0) is a medium class High Mobility Multipurpose Wheeled Vehicle (HMMWV) with Special Operations - Peculiar (SO-P) modifications.
- Currently there are three variants that make up the enduring GMV 1.0 fleet;
- M1165A1 w/B3 designed for maximum protection
- M1165A1 Ultralight provides maximum range and mobility
- M1113 provides maximum transportability; MH-60 airlift capable.
- ACAT III program; CPD 2009

Key Points / Attributes

- Configurations up to 7 operators
- Continues to be employed in contingency operations
- Currently in sustainment
- Potential opportunities for future;
 - RECAP
 - Capability improvements
 - Equipment exchange agreements

Performance

Range	350 Miles (Ultralight)
Speed	65 MPH
Internal Air Transport	C-130 (CH-47 w/ Modifications)
Payload	3,120 – 5,880lbs variant dependent
Net Ready	Incorporates SOCOM C4ISR Suite

Ground Mobility Vehicle 1.1



System Description / Mission

- An ACAT III, Program of Record, for High Mobility, cross country, Joint SOF medium mobility missions
- Internally Air Transportable in a C/MH-47
 - Depending on payload, one or two vehicles can fit in a C/MH-47
- Scalable armor(NATO STANAG Level I w/Frag)
- SOF Full Operational Capability: 1297 vehicles

Key Points / Attributes

- 7 Operators for SOF
- Fielding to SOF units began in Mar 2016
- SOF Gross Weight (GVWR): 13,000lbs
- Length 182", Width 79", Height 72.00"

Performance

Tractive Effort	Ability to climb >= 60% slope
Internal Air Transport	C/MH-47 & C-130 or larger
Vehicle Characterization	Capable of re-configurations for various missions w/ built-in interface controls and the use of kits
Survivability	Provide integrated structure with crush resistant roof to support 100% GVW
Net Ready	Incorporates SOCOM C4 suite
Operational Availability	95%

GMV 1.1 Business Opportunities

- **Survivability**
2nd Source for Armor Mod Kits – Potential sub-contract effort
- **Signature Management**
Signature Reduction technologies and coatings
- **Mobility**
Tire technology and non-pneumatic efforts
Suspension technology
Drivetrain and locking differentials
Brake technology

ACQUISITION STRATEGY

- Full and Open Competition
- Single Vendor Award
- Produce and Evaluate Test Vehicles
- Full-Rate Production Decision

PERIOD OF PERFORMANCE

- Aug 2013 – Aug 2020
- 2 Year Production Validation
- 5 Years Production

MILESTONES

- Contract Award: Aug 2013
- Start of Test : Feb 2014
- First Unit Equipped: Mar 2016

POINT OF CONTACT

- 813.826.9482 (TILO)

FUNDING

- \$50 M/Year (Average)

CURRENT CONTRACT/OEM

- General Dynamics Ordnance and Tactical Systems (St. Petersburg, FL)

MRAP All-Terrain Vehicle (M-ATV)



System Description / Mission

- The Mine Resistant Ambush Protected (MRAP) family of vehicles in the SOCOM fleet currently consists primarily of the MRAP All Terrain Vehicle (M-ATV), and a few remaining RG-33 SV, RG-33A1, and RG-33AUVs.
- Vehicles are modified to meet SOF unique requirements including the integration of a Remote Weapons Station, SOF specific C4ISR systems, SOF specific jamming devices, Long Range GMVAS, emergency egress lighting, and HEEDS bottles.
- ACAT IC Army program in sustainment; CPD 2009

Key Points / Attributes

- Crew of up to 5 Operators
- TAK-4 suspension for greater off-road mobility
- TACOM / Navy sustained enduring fleet starting FY17 (APS and HST)
- SOCOM continues to sustain a deployed fleet
- Potential opportunities;
 - Equipment exchange agreements
 - Future SO-P capability improvements
 - Value engineering efforts to reduce future sustainment costs

Performance

Range	320 Miles
Speed	65 MPH
Internal Air Transport	C-17 (C-130 w/ major modifications)
Net Ready	Incorporates SOCOM C4ISR Suite
Payload	4,000lbs

Non Standard Commercial Vehicles (NSCV)



System Description / Mission

- The NSCV provides SOF with a Low Visibility vehicle capability to conduct operations in politically or operationally constrained permissive, semi-permissive, or denied areas
- The current NSCV is based on commercial vehicle platforms
 - Toyota Hilux, Land Cruiser 79, Ford Ranger (Trucks)
 - Toyota Land Cruiser 76, 78, 200 series (SUVs)

Key Points / Attributes

- Seven Year IDIQ Contract valued at \$170M for up to 556 NSCVs and Logistics Packages (Awarded July 16)
- Basis of Issue (BOI)
 - Full Operational Capability (FOC): 603 NSCVs
 - 179 CONUS / 424 OCONUS
- NSCV Lifecycle Replacement Rate:
 - 3 years OCONUS / 5 years CONUS

Performance

Payload	2,500 lbs (Unarmored Variants) 2,200 lbs (Armored Trucks) 2,000 lbs (Armored SUVs)
Internal Air Transport	H-47 (trucks), C-130 and above (all)
Mission Profile	10% Primary Roads, 40% Secondary Roads, 45% Trails, 5% Cross Country
Performance / Durability Upgrades	HD Suspension, HD Brakes, Frame Reinforcements, Skid Plates, Blackout/IR, Dual Alternator, Drive Train, Tires
C4ISR	LoS, SATCOM, ECMS/CREW, GPS

NSCV Business Opportunities

- **Survivability**
Lightweight Transparent and Opaque Armor
- **Mobility**
Purpose Built NSCV for High Durability and Longer lifecycle
High Output Alternators at Low Idle (i.e. 300+ amps at 700RPM)
Modification Cost Reduction Efforts (Brakes, Suspension, etc.)
- **C4ISR**
Affordable Low Profile Antennas for Line of Sight, SATCOM,
and ECMS technology

ACQUISITION STRATEGY

- Full and Open Competition
- Single Vendor Award
- Produce and Validate Test Vehicles

PERIOD OF PERFORMANCE

- 7 year IDIQ
- July 16 – July 23

MILESTONES

- Production Qualification Testing
4QFY17 – 3QFY18

POINT OF CONTACT

- 813.826.9482 (TILO)

FUNDING

- \$22.5M/Year (Average)

CURRENT CONTRACT/OEM

- Battelle Memorial Institute
(Columbus, OH)

Questions?



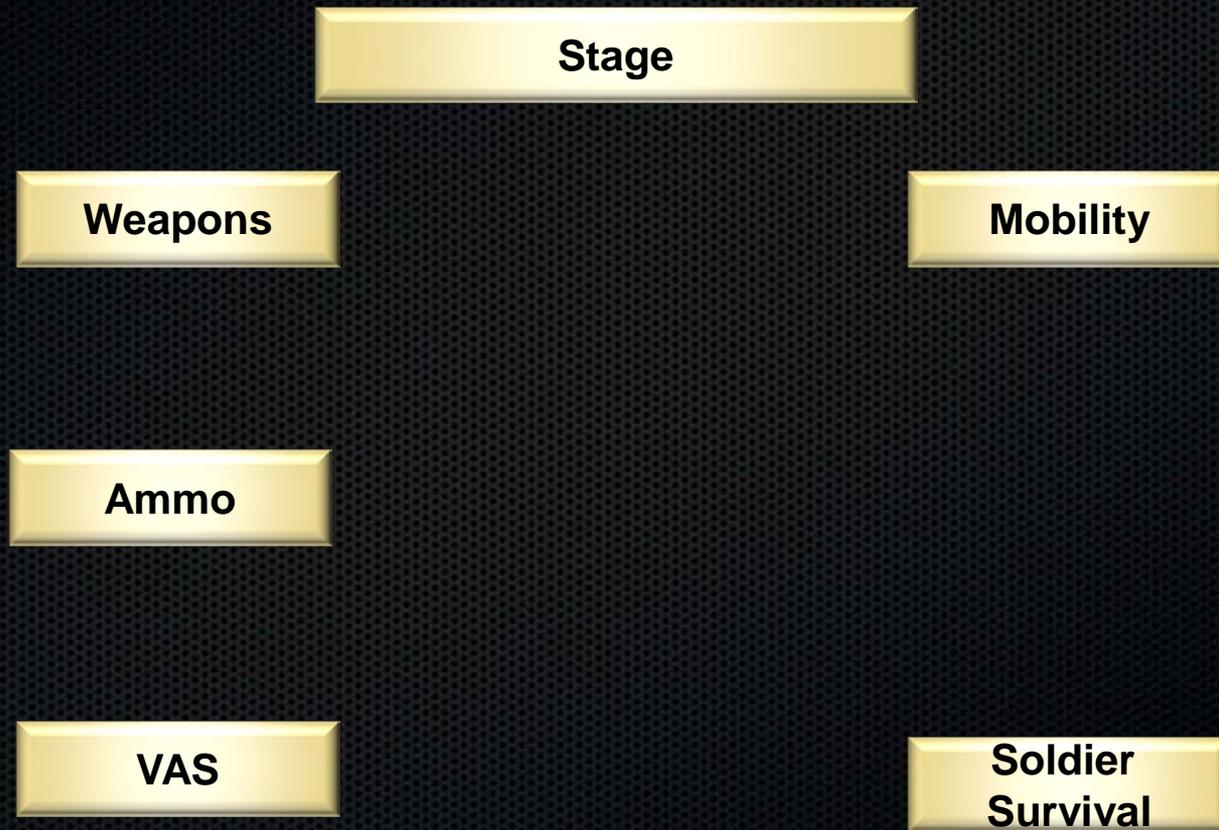
PM FOSOV: We are the bridge between great ideas and affordable, superior SOF ground mobility.

Questions



We Support Our Nations Very Best!

Break-Out Discussions



The Iron Triangle

**Achieving Operational
Overmatch**

Expeditionary

Mobility

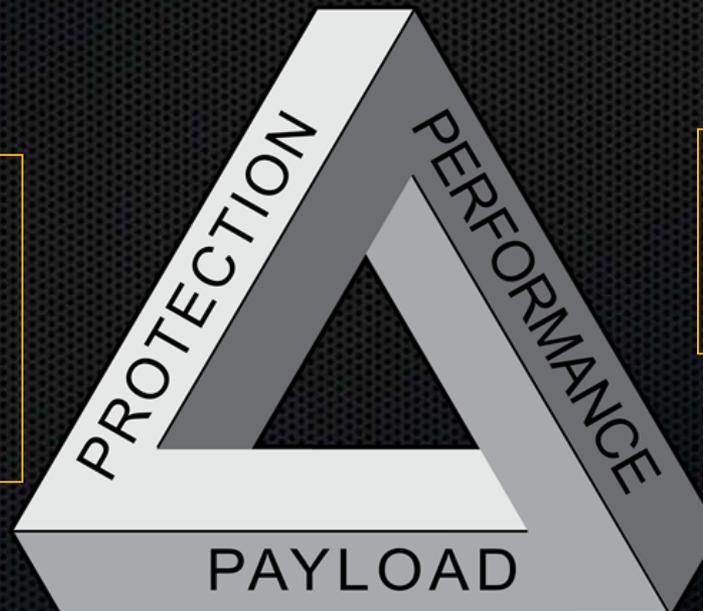
Lethality

Survivability

Increased Payload

Configurable Mission Packages

*Protection Added
At Expense Of
Size And Off-road
Mobility
Performance &
Payload*



*Performance &
Payload At The
Expense Of
Protection*

Research & Development Funds To Pivot Quickly And Focus On New Technology