



# SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

Deputy Program Manager

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Family of Special  
Operations Vehicles



SOF WARRIOR

# SOF OPERATOR & TACTICAL VEHICLES

- The Special Operations Forces (SOF) Operator and Team are the foundation of our SOF
- The SOF Operator remains the most discriminately lethal force on the battlefield
- USSOCOM equipment modernization builds from the SOF Operator out -- equipping our teams for tactical overmatch in all situations, connected to an integrated network
- **While operating in vehicles that improve mobility and lethality while preserving survivability**

# MISSION STATEMENT



**Light**  
858 Fielded

**Commercial**  
402 Fielded

**Medium**  
1293 Fielded

**Heavy**  
519 O/H Enduring: 280

**Develop, procure, sustain, and capture innovative mobility technology to improve SOF unique ground mobility platforms supporting global SOF operations.**



**3,000 SOF  
Modified Vehicles**

# ACQUISITION PHILOSOPHY

- **Service Common: Maximize utilization of Service materiel solution**
  - Leverage full requirements/Acquisition development process
- **Operational capability modifications**
  - Modular, user installable C4I
  - Mounts for weapons
  - Ballistic/Blast protection upgrades (mission configuration kits)
- **Commercial Off the Shelf + Modified = SOF Unique**
- **Develop / build SOF Specific materiel solution**
  - Procure and sustain when options are unavailable
  - Limited resources
  - Focused on SOF - specific missions
  - Transition from SOF to regular forces to reduce sustainment costs



# LIGHT TACTICAL ALL-TERRAIN VEHICLE (LTATV)



## System Description

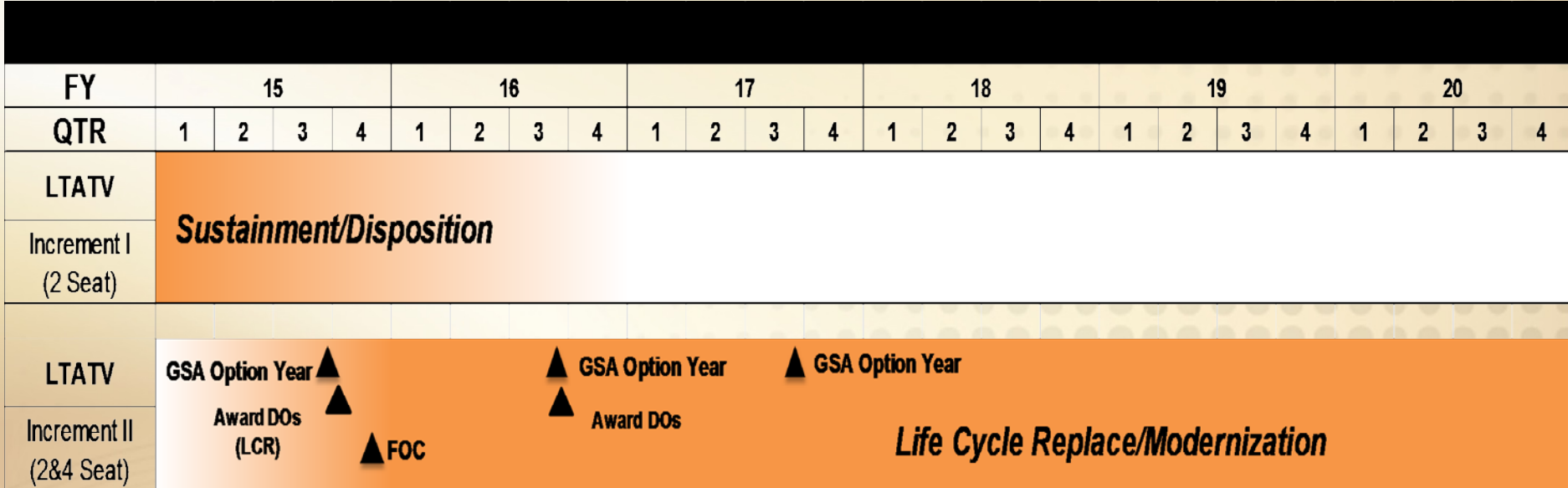
- A modified commercial-off-the-shelf (COTS) 4x4 with side-by-side seating
- SOF modifications enable vehicles to be internally transportable by air via the V-22, H-53, and H-47
- Additional modifications include litter carrying capability, run flat tires, IR light system, winch for self-recovery, and weapons mount

## MRZR Vehicle Specifications




- **MRZR2**
  - Vehicle Curb Weight: 1624 lbs.
  - Length 115.4", Width 59.5", Height 73.6"
  - Unit Cost: \$30,000
- **MRZR4**
  - Vehicle Curb Weight: 1937 lbs.
  - Length 141.5", Width 59.5", Height 73.8"
  - Unit Cost: \$32,000

Performance	
Range	75 miles
Internal Air Transport	V-22/H-47/H-53
Rollover Protection	115% Gross Vehicle Weight
Air Drop Certification	C-130/ C-17
Payload	1000 lbs. 2-Seat
	1500 lbs. 4-Seat
Performance @ GVW on Hard Surface	Speed: Maintain 45 mph
	Acceleration: 0-30mph in 10 sec

# LIGHT TACTICAL ALL-TERRAIN VEHICLE ROAD MAP



GSA Option Year ▲  
 Award DOs (LCR) ▲  
 FOC ▲  
 Award DOs ▲  
 GSA Option Year ▲  
 Award DOs ▲  
 GSA Option Year ▲

-  QTY Decrease to Disposition
-  QTY Increase from Production
-  Milestone

# LIGHT TACTICAL ALL-TERRAIN VEHICLE

- Awarded GSA Blanket Purchase Agreement to Polaris Defense in 2013 for 2 & 4 seat variants.
- Life-cycle replacement of legacy LTATV fleet ~185/YR
- LTATV modernization achieved via Life Cycle Replacement (LCR)
- LCR Factor ~ 3 years

## ACQUISITION STRATEGY

GSA Blanket Purchase Agreement  
GS-07F-0398M

## PERIOD OF PERFORMANCE

PoP: Ends 18 June 17

## MILESTONES

Pure-Fleet FOC: FY16

## POINT OF CONTACT

813.826.9482 (TILO)

## FUNDING

\$9.5M per year (estimate)

## CURRENT CONTRACT/OEM

Polaris MRZR2 and MRZR4

# V-22 INTERNAL TRANSPORTABLE VEHICLE (ITV)



## System Description

- General Dynamics Ordnance and Tactical Systems was competitively awarded for a non-developmental V-22 Internally Transportable Vehicles (ITV)
- Procured three ITVs to support an AFSOC Combat Evaluation (July 14 – July 15)
- The ITV is not a Program of Record
- Draft Capability Production Document in staffing at HQ SOCOM

## GD-OTS ITV Vehicle Specifications

### The Flyer GEN II ITV

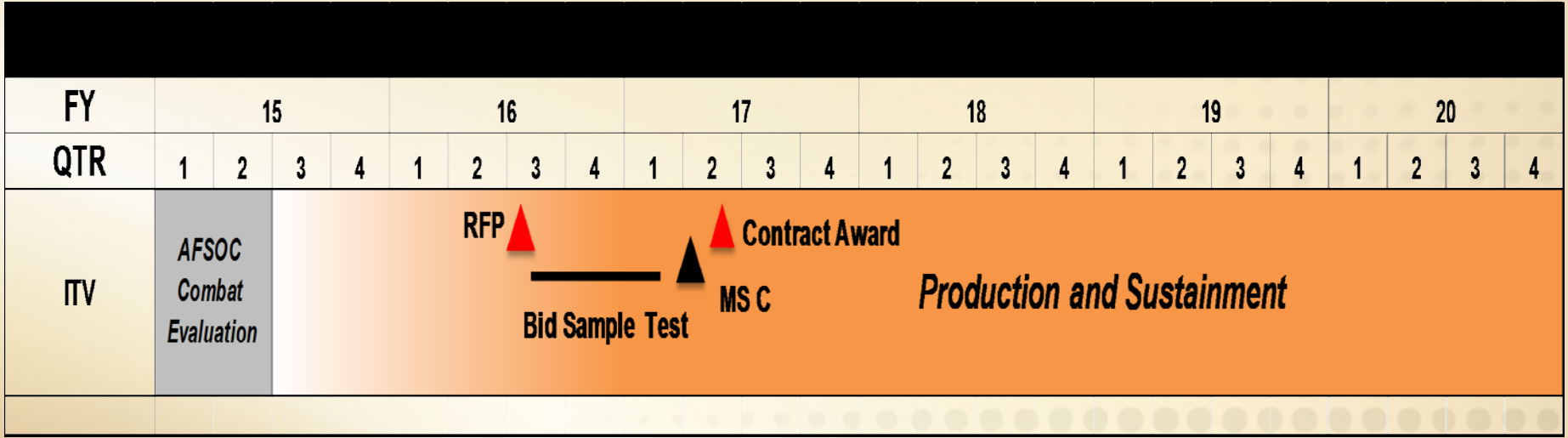
- Vehicle Curb Weight: 4,500 lbs.
- Length 180", Width 60", Height 60"
- Top Speed: 75 mph
- Payload: 4,000 lbs.
- Cruising Range: 450 miles
- Prototype Cost: \$480,000
- Mission: CBT Search & Rescue/ CBT

### Performance

<b>Range</b>	400 miles (T); 450 miles (O)
<b>Speed</b>	65 mph (T); 75 mph (O)
<b>Internal Air Transport</b>	V-22/H-47/H-53
<b>Aircraft Entry/Exit Time</b>	60 Sec (T); 30(O)
<b>Casualty Transport</b>	3 Litters (T); 6 (O)
<b>Payload</b>	V-22 -- 1100 (T); 3500 (O) Ground -- 3000 (T); 3500 (O)
<b>Mission Profile</b>	40% Cross Country/ 30% Trails/ 20% Secondary/ 10% Primary Road



# V-22 INTERNAL TRANSPORTABLE VEHICLE ROAD MAP



- QTY Increase from Production
- New Business Opportunity
- Milestone

# V-22 INTERNAL TRANSPORTABLE VEHICLE

ACQUISITION

- AFSOC COMBAT EVALUATION
  - RFP Released March 2013 via Federal Business Opportunities Website
  - FFP IDIQ Competitive Contract Award September 2013
  - Three V-22 ITVs, Logistics Support, New Equipment Training & Spares
- CPD at HQ USSOCOM for review / approval
- Current PoR Estimate: 3rd quarter FY16

**ACQUISITION STRATEGY**

Current: Combat Eval

Future: Issue RFP in FY16

**PERIOD OF PERFORMANCE**

- AFSOC CV: Ends July 15
- Program of Record: (TBD)

**MILESTONES**

- CPD: @ SOCOM for SOCREB
- RFP: 3<sup>rd</sup> QTR FY16
- Award: 2<sup>nd</sup> QTR FY17

**POINT OF CONTACT**

813.826.9482 (TILO)

**FUNDING**

Funding is Programmed for FY17 Start

**CURRENT CONTRACT/OEM**

General Dynamics Ordnance and Tactical Systems (GDOTS)

# NON STANDARD COMMERCIAL VEHICLE (NSCV)



## System Description

- The NSCV provides SOF with a Low Visibility tactical ground vehicle capability to conduct operations in politically or operationally constrained permissive, semi-permissive, or denied operating environments
- NSCV are commercial based vehicle platforms from Toyota that are enhanced with mission-specific modifications that include ballistic protection, C4ISR, navigation, and night vision

## Vehicle Specifications

- Current Toyota Land Cruiser 200
  - Curb Weight: 9,370 lbs.
  - Gross Vehicle Weight: 11,570 lbs.
  - Max Engine Power: 261HP
- Current Toyota Hilux Double Cab
  - Curb Weight: 7,905 lbs.
  - Gross Vehicle Weight: 10,105 lbs.
  - Max Engine Power: 170 HP

Performance	
Range	300 Miles
Speed	65 MPH
Internal Air Transport	Truck Variant C/MH47
Payload	2000 lbs. SUV Armored 2200 lbs. Truck Armored 2500 lbs. Unarmored Both
Mission Profile	25%Primary;35%Secondary 35% Trails; 5% X- Country

# NON STANDARD COMMERCIAL VEHICLE ROADMAP

## Mobility - NSCV Roadmap

FY	15				16				17				18				19				20			
QTR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
NSCV Armored	<p><b>NSCV Armored</b></p> <p><i>Procure, Sustain, Dispose, &amp; Life Cycle Replace Incorporating Modernization</i></p> <p>Milestones (black triangles):                      - Q2 FY15: Improved Armor                      - Q3 FY15: GSA Option Year                      - Q3 FY16: Award DOs (LCR)                      - Q3 FY17: Award DOs (LCR)                      - Q4 FY17: Follow On Contract Award</p> <p>New Business Opportunities (red triangles):                      - Q3 FY15: Industry Day                      - Q4 FY15: Release New RFP</p>																							
	<p><b>NSCV Unarmored</b></p> <p><i>Procure, Sustain, Dispose, &amp; Life Cycle Replace Incorporating Modernization</i></p> <p>Milestones (black triangles):                      - Q2 FY15: GSA Option Year                      - Q3 FY16: Award DOs (LCR)                      - Q3 FY17: Award DOs (LCR)                      - Q4 FY17: Follow On Contract Award</p> <p>New Business Opportunities (red triangles):                      - Q3 FY15: Industry Day                      - Q4 FY15: Release New RFP</p>																							

QTY Increase from Production

New Business Opportunity

Milestone

# NON STANDARD COMMERCIAL VEHICLE

- Acquire commercial vehicles representative for mission specific indigenous operating environments
- \$75M effort to acquire ~300 vehicles, training, and spares
- Modernization through modification occurs with Life Cycle Replacement (LCR)
  - LCR = 3 years OCONUS
  - LCR = 5 years CONUS

## ACQUISITION STRATEGY

Current:  
GSA Blanket Purchase Agreements  
Future: Competitive RFP 4<sup>th</sup> QTR FY15

## PERIOD OF PERFORMANCE

- (Armored) 16 Mar 13 to 16 Mar 16
- (Unarmored) 17 Jul 13 to 17 Jul 16
- Three Year Blanket Purchase Agreement's w/GSA

## MILESTONES

- Industry Day 28 May FY15
- New RFP Release 4<sup>th</sup> QTR FY15
- Contract Award 3<sup>rd</sup> QTR FY16

## POINT OF CONTACT

813.826.9482 (TILO)

## FUNDING

\$23.7M per year  
(average FY15-20)

## CURRENT CONTRACT/OEM

Battelle Memorial Institute (Armored)  
  
Ultra Armoring (Unarmored)

# GROUND MOBILITY VEHICLE 1.1

UNCLASSIFIED



## System Description

- ACAT III, Program of Record, with approved CPD dated September 2011
- Highly mobile and Internally Air Transportable in a H-47
- Depending on payload, one or two vehicles can fit in a H-47
- Initial Production Qty: 1,297 vehicles

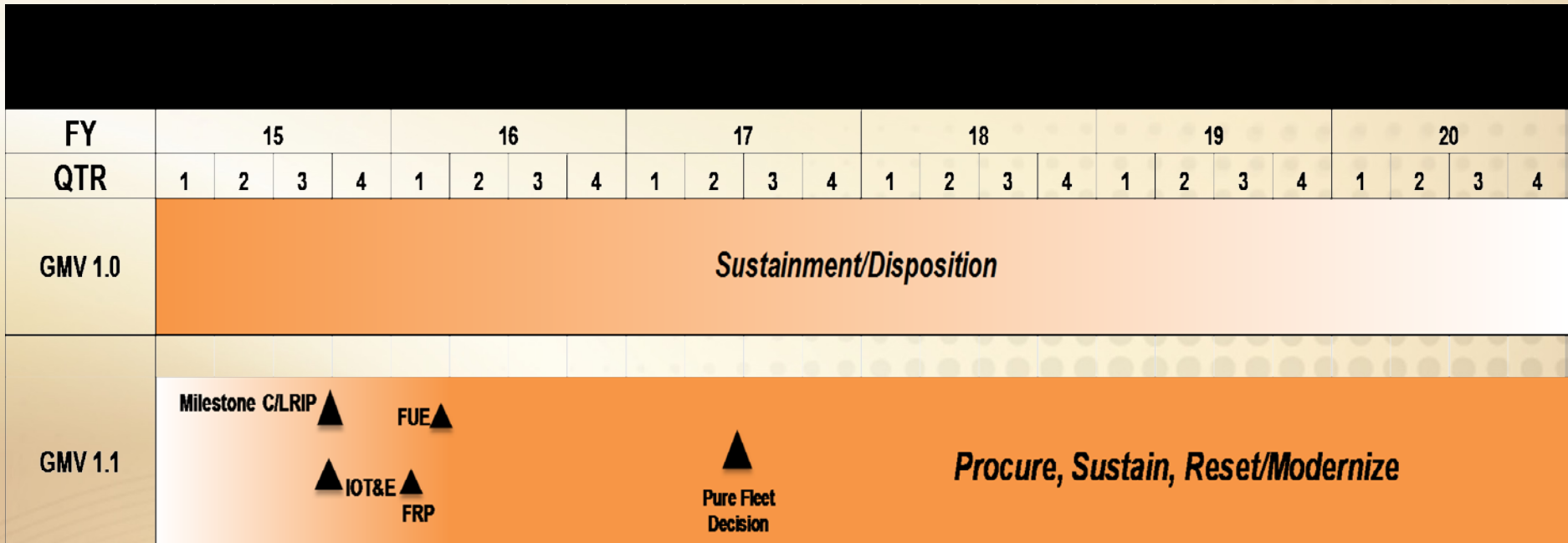
## GMV 1.1 Vehicle Specifications

- 6 Operators (7 with Secondary Seating kit)
- Empty Vehicle Weight = 5,620 lbs.
- Vehicle Curb Weight: 6,840 lbs.
- Gross Vehicle Weight: 11,200 lbs.
- Length 210", Width 79.6", Height 72"
- Top Speed: 73.3 mph
- Payload: 6,160 lbs. (GVWR of 13,000 lbs)
- Cruising Range: 408 miles

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

UNCLASSIFIED

# GROUND MOBILITY VEHICLE 1.0 & 1.1 ROADMAP



QTY Decrease to Disposition

QTY Increase from Production

Milestone

# GROUND MOBILITY VEHICLE 1.1

- Approved requirement for a H-47 internally transportable, “roll off” mission ready, medium weight vehicle
- Single contract award for test quantities (9), leading to low rate and full-rate production decisions
- Projected procurement quantity: 1,297 (FOC)
- Opportunities for Industry to participate on GMV 1.1 through GD-OTS including lightweight initiatives, traversing turret, and canvas enclosure kits.

## ACQUISITION STRATEGY

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

## PERIOD OF PERFORMANCE

PoP: Aug 13 - Mar 21  
5 Years Production  
(Optional CLINs)

## MILESTONES

Contract Award: Aug 13  
Test Start: Feb 14  
First Unit Equipped: Nov 15

## POINT OF CONTACT

813.826.9482 (TILO)

## FUNDING

\$50.0M per year  
(average FY15-20)

## CURRENT CONTRACT/OEM

General Dynamics Ordnance  
and Tactical Systems (GD-OTS)



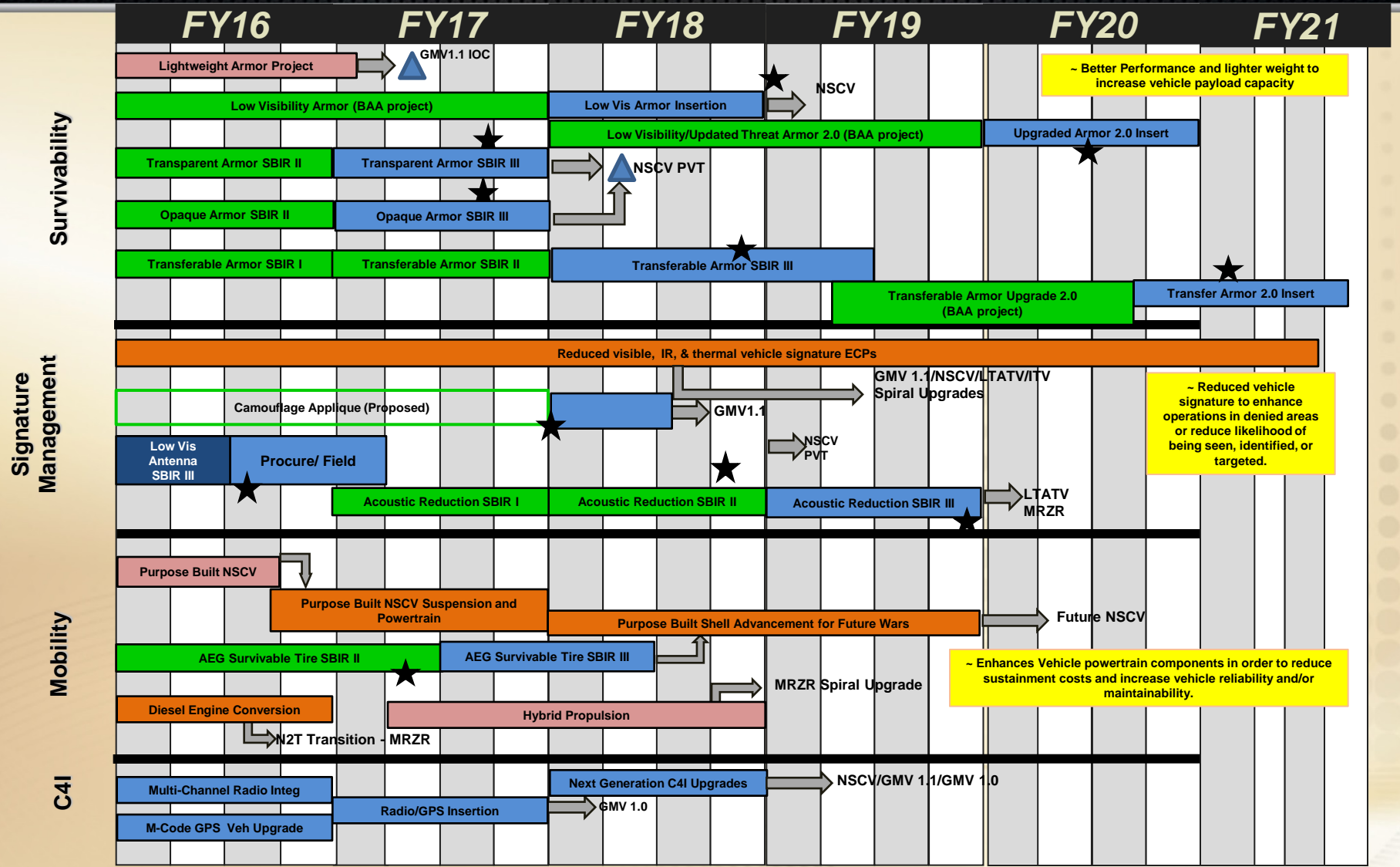
# HEAVY TACTICAL VEHICLES ROADMAP

FY	15				16				17				18				19				20			
QTR	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<b>RG-33A1</b>	<i>Divest to DLA-DS/Long Term Storage (LTS)</i>																							
<b>RG-33 AUV</b>	<i>Divest to DLA-DS/Long Term Storage</i>																							
<b>M-ATV</b>	<i>Reset: Army Prepositioned Stock (APS) Inspect Repair Only As Necessary (IROAN): Field to Home Station Training</i>								<i>Sustainment/Disposition - APS</i>															

 QTY Decrease to Disposition

Driving to an “enduring requirement” of 280 M-ATV’s. Army will sustain SOF Unique M-ATVs after reset in Livorno

# MOBILITY TECHNOLOGY INSERTION ROADMAP



- Better Performance and lighter weight to increase vehicle payload capacity

- Reduced vehicle signature to enhance operations in denied areas or reduce likelihood of being seen, identified, or targeted.

- Enhances Vehicle powertrain components in order to reduce sustainment costs and increase vehicle reliability and/or maintainability.

PMO: \$3,235K + S&T    PMO: \$3,369K + S&T    PMO: \$2,621K + S&T    PMO: \$2,669K + S&T    PMO: \$2,727K + S&T    PMO: TBD+ S&T \$K

- ★ Deliverable
- ▲ Milestone
- TARDEC - USSOCOM Funded
- S&T USSOCOM Funded
- Navy SBIR Effort
- PM FOSOV PROC Transition Effort
- PM FOSOV SDD
- Supports a Key Event

# SOF UNIQUE - DRIVES BUSINESS OPPORTUNITIES

- **Improved** to achieve off road mobility, enhanced survivability and C3I in a variety of indigenous locations
- **Modified** to mitigate threat targeting while conducting tactical ground maneuver in denied operating environments
- **Certified** for internal air transport in V-22, H-53, and C/MH-47 rotary aircraft
- **Modular/Open System** - enabling Operator tweaks for mission specific tasks and technology insertions
- **Designed / modified** to meet rugged terrain profile and speed requirements that far exceed big service mobility platforms
- **Distinctive** C4ISR suite, high degree of Human Factors Engineering ensuring interoperability with SOF operator and crew served weapons
- **Specialized** modifications allowing highly trained operators to make on the spot decisions

# HOW CAN INDUSTRY HELP?

- **SOF unique attributes - Modernization**
- **Mobility enhancements - > Reliability, reduced cost of ownership**
- **Small form hybrid engine - LTATV**
- **Purpose built NSCV**
- **Lightweight (thin) Transparent Armor (GMV 1.1 / NSCV)**
- **Passive noise cancellation for engines**
- **Reduced visual signature (e.g., camo, 3D camo)**
- **Rapid Emergency Egress doors**
- **Sub-contracting opportunities w/Prime Contractors**

# QUESTIONS?



**PM FSOV: Mobility at the Tip of the Spear**