• 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

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

3,000 SOF Modified Vehicles

- Light: 858 Fielded
- Commercial: 402 Fielded
- Medium: 1293 Fielded
- Heavy: 519 O/H Enduring: 280
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)

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

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

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

### Sustainment/Disposition

#### Life Cycle Replace/Modernization

- 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

<table>
<thead>
<tr>
<th>ACQUISITION STRATEGY</th>
<th>PERIOD OF PERFORMANCE</th>
<th>MILESTONES</th>
<th>CURRENT CONTRACT/OEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>GSA Blanket Purchase Agreement GS-07F-0398M</td>
<td>PoP: Ends 18 June 17</td>
<td>Pure-Fleet FOC: FY16</td>
<td>Polaris MRZR2 and MRZR4</td>
</tr>
</tbody>
</table>

**FUNDING**

- $9.5M per year (estimate)

**POINT OF CONTACT**

- 813.826.9482 (TILO)
**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

---

**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

---

**Performance**

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

<table>
<thead>
<tr>
<th>FY</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
<th>19</th>
<th>20</th>
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<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

- **QTY Increase from Production**
- **New Business Opportunity**
- **Milestone**

**AFSOC Combat Evaluation**

- **RFP**
- **Contract Award**
- **Bid Sample Test**
- **MSC**

**Production and Sustainment**
**V-22 INTERNAL TRANSPORTABLE VEHICLE**

- **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:** 3rd QTR FY16
- **Award:** 2nd QTR FY17

**FUNDING**
- Funding is Programmed for FY17 Start

**CURRENT CONTRACT/OEM**
- General Dynamics Ordnance and Tactical Systems (GDOTS)

**POINT OF CONTACT**
- 813.826.9482 (TILO)
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

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

Performance

<table>
<thead>
<tr>
<th>Performance</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Range</td>
<td>300 Miles</td>
</tr>
<tr>
<td>Speed</td>
<td>65 MPH</td>
</tr>
<tr>
<td>Internal Air Transport</td>
<td>Truck Variant C/MH47</td>
</tr>
<tr>
<td>Payload</td>
<td></td>
</tr>
<tr>
<td>2000 lbs. SUV Armored</td>
<td></td>
</tr>
<tr>
<td>2200 lbs. Truck Armored</td>
<td></td>
</tr>
<tr>
<td>2500 lbs. Unarmored Both</td>
<td></td>
</tr>
<tr>
<td>Mission Profile</td>
<td>25% Primary; 35% Secondary 35% Trails; 5% X-Country</td>
</tr>
</tbody>
</table>
# Mobility - NSCV Roadmap

<table>
<thead>
<tr>
<th>FY</th>
<th>QTR</th>
<th>QTY Increase from Production</th>
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<tbody>
<tr>
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</table>

## NSCV Armored
- **Improved Armor**
- **GSA Option Year**
- **Release New RFP**
- **Industry Day**
- **Award DOs (LCR)**
- **Follow On Contract Award**

### Procure, Sustain, Dispose, & Life Cycle Replace Incorporating Modernization

## NSCV Unarmored
- **GSA Option Year**
- **Release New RFP**
- **Industry Day**
- **Award DOs (LCR)**

### Procure, Sustain, Dispose, & Life Cycle Replace Incorporating Modernization

- ▲ **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 4th 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

**FUNDING**

$23.7M per year  
(average FY15-20)

**MILESTONES**

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

**CURRENT CONTRACT/OEM**

Battelle Memorial Institute (Armored)  
Ultra Armoring (Unarmored)

**POINT OF CONTACT**

813.826.9482 (TILO)
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

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

<table>
<thead>
<tr>
<th>Performance</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractive Effort</td>
<td>Ability to climb &gt;= 60% slope</td>
</tr>
<tr>
<td>Internal Air Transport</td>
<td>H-47 &amp; C-130 or larger</td>
</tr>
<tr>
<td>Vehicle Standardization</td>
<td>Capable of re-configurations for various missions w/ built-in interface controls and the use of kits</td>
</tr>
<tr>
<td>Survivability</td>
<td>Provide integrated structure with crush resistant roof to support 100% GVW</td>
</tr>
<tr>
<td>Net Ready</td>
<td>Incorporates net ready C4 suite</td>
</tr>
<tr>
<td>Operational Availability</td>
<td>95%</td>
</tr>
</tbody>
</table>
# GROUND MOBILITY VEHICLE 1.0 & 1.1 ROADMAP

<table>
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<tr>
<th>FY</th>
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</table>

**GMV 1.0**

Sustainment/Disposition

**GMV 1.1**

- Milestone CILRIP
- Milestone FUE
- Milestone IOT&E
- Milestone FRP

Procure, Sustain, Reset/Modernize

- QTY Decrease to Disposition
- QTY Increase from Production

- Milestone
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.

**GROUND MOBILITY VEHICLE 1.1**

- **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

- **FUNDING**
  - $50.0M per year (average FY15-20)

- **CURRENT CONTRACT/OEM**
  - General Dynamics Ordnance and Tactical Systems (GD-OTS)

**POINT OF CONTACT**

813.826.9482 (TILO)
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

**Survivability**
- Lightweight Armor Project
- Low Visibility Armor (BAA project)
- Transparent Armor SBIR II
- Opaque Armor SBIR II
- Transferable Armor SBIR I
- GMV 1.1 IOC
- Low Vis Armor Insertion
- Low Visibility/Updated Threat Armor 2.0 (BAA project)
- Opaque Armor SBIR III
- Transferable Armor SBIR II
- NSCV PVT
- GMV 1.1
- LTATV/IHV
- Future NSCV
- LTATV MRZR
- GMV 1.1/NSCV/LATV/ITV
- Future NSCV
- ~ Better Performance and lighter weight to increase vehicle payload capacity

**Signature Management**
- Camouflage Applique (Proposed)
- Low Vis Antenna SBIR III
- Procure/Field
- Acoustic Reduction SBIR I
- Acoustic Reduction SBIR II
- Acoustic Reduction SBIR III
- GMV 1.1
- NSCV PVT
- LTATV MRZR
- LTATV
- ~ Reduced vehicle signature to enhance operations in denied areas or reduce likelihood of being seen, identified, or targeted.

**Mobility**
- Purpose Built NSCV
- Purpose Built NSCV Suspension and Powertrain
- AEG Survivable Tire SBIR II
- Diesel Engine Conversion
- Hybrid Propulsion
- N2T Transition - MRZR
- MRZR Spiral Upgrade
- ~ Enhances Vehicle powertrain components in order to reduce sustainment costs and increase vehicle reliability and/or maintainability.

**C4I**
- Multi-Channel Radio Integ
- M-Code GPS Veh Upgrade
- Radio/GPS Insertion
- Next Generation C4I Upgrades
- NSCV/GMV 1.1/GMV 1.0
- ~ Supports a Key Event

**Deliverable**
- TARDEC - USSOCOM Funded
- S&T USSOCOM Funded
- Navy SBIR Effort
- PM FOSOV PROC Transition Effort
- PM FOSOV SDD

**PMO:**
- FY16: $3,235K + S&T
- FY17: $3,369K + S&T
- FY18: $2,621K + S&T
- FY19: $2,669K + S&T
- FY20: $2,727K + S&T
- FY21: TBD + S&T $K
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
• 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
PM FSOV: Mobility at the Tip of the Spear