

LAV PROGRAM UPDATE

**COMBAT VEHICLE CONFERENCE
22 SEPTEMBER 1998**

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Colonel, PM, LAV

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Tank-automotive & **A**rmaments **COM**mand
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TOPICS

- O LAV MARINE CORPS PROGRAMS**
- O LAV INTERNATIONAL PROGRAMS**

LAV MARINE CORPS PROGRAMS

LAV SERVICE LIFE EXTENSION PROGRAM (SLEP)

Objectives

1. Extend LAV service life through 2015
2. Reverse declining trend of operational readiness
3. Reduce Fleet O&S costs
4. Enhance performance where appropriate and affordable

Assumptions

- Resources will allow LAV replacement by 2015
- LAV Auto-hull will remain viable platform through 2015

LAV SLEP

Acquisition Strategy

→ Rationale

→ Fleet reaches projected service life 2003-2008

→ Funding not available for replacement vehicle before 2010

→ Strategy - The priority of the effort will be to maintain the current capability of the LAV Fleet. Product Improvements and Tech Insertion will be accomplished as enhancement, IF AFFORDABLE, to meet operational deficiencies.

LAV SLEP

Schedule

| | |
|--------------|--------------|
| →MS 0 | 1 Qtr/FY98 |
| →MS I/II (a) | 2 QTR/FY99 |
| →MS II (b) | 1 QTR/FY00 |
| →DT/OT | 1-4 QTR/FY01 |
| →MS III | 4 QTR/FY01 |
| →IOC | 4 QTR/FY03 |
| →FOC | 1 QTR/FY07 |

POTENTIAL SLEP Components

→ General

- Corrosion Prevention Program
 - LAV-25 Battery Box Mod
- Hull/Structural Crack Reduction
- IETM
- Integrated Battlefield Info Sys

→ Turret/Gun

- LAV-25 Contact Test Set
- Driver's Hatch Upgrade
- Gyro Test Kit
- Gyro Upgrade
- Traverse Drive Backlash Test Kit
- Gunner's Hatch Upgrade
- Sight Synchronization Kit
- Sight Purging Kit
- Hydraulic Test Kit (Turret)
- Long-Stroke Recoil Mechanism Upgrade

→ Auto-Hull

→ Mechanical

- Steering Bearing Shaft Upgrade
- Alternator Bracket
- Driveline & Suspension Retrofit
- Engine
- Transmission
- 2-Speed Transfer Case
- Power Pack Maintainability Enhancements

→ Hydraulic/Pneumatic

- Pneumatic System Air Dryer
- Hydraulic System Test Kit (Hull)
- Hydraulic Oil Cooler

→ Electrical

- Alternator Test Kit
- Cable Test Kit

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POTENTIAL SLEP Enhancements

→ Turret/Gun

- Electric Turret Drive
- 30mm MG/AAAV Turret
- LAV-25T & TE TOW Retrofit
- Gun Control Unit Retrofit Kit
- Traverse Drive Upgrade Kit
- Gen II HIRE Sight
- Gen III Night Elbow Kit
- Manual Drive Slip Ring Upgrade Kit
- HIRE Installation Enhancement

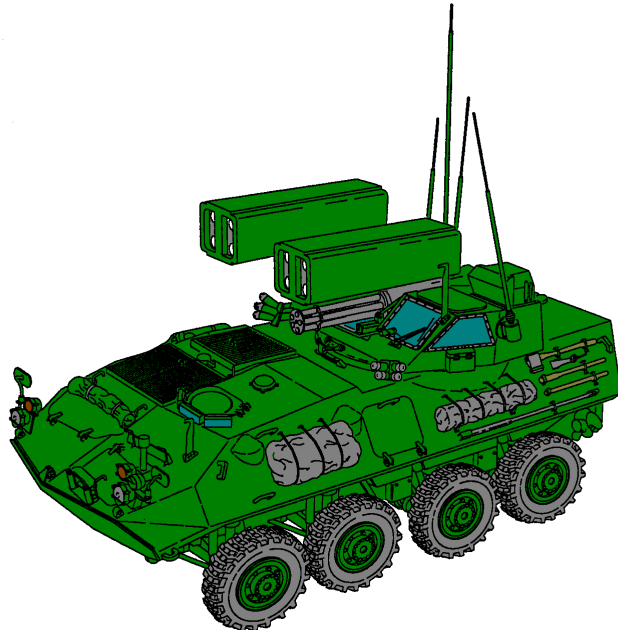
→ Auto-Hull

→ Mechanical

- Muffler Signature Enhancements
- Heavy Duty Torsion Bars
- LAVII Shocks
- Wheel and Tire Assembly
- Cooling System Retrofit
- Swim Aids
- Quick Engine Disconnects
- Marine Drive Mounting Bracket Upgrade

→ Electrical

- Low Voltage Headlights & Taillights



LIGHT ARMORED VEHICLE - AIR DEFENSE

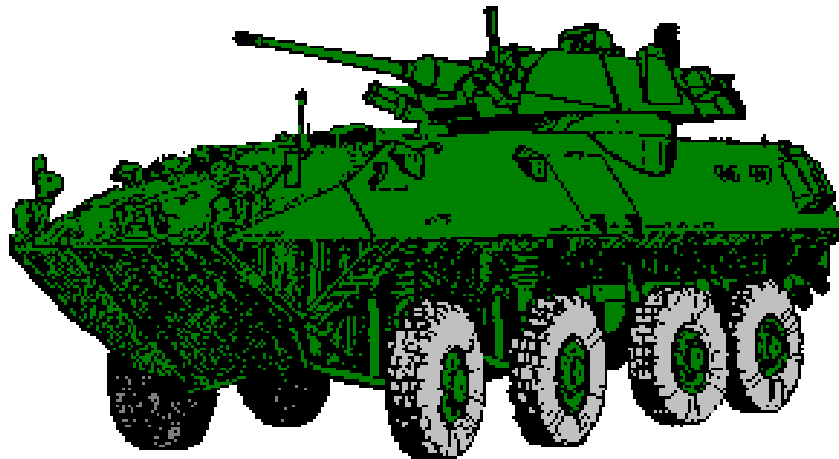
- Crew: 3 (Commander/Gunner/Driver)
- 25mm Gatling gun (Total of 990 rounds)
- Stinger missiles (Total of 16)
- FLIR/Day TV Sight
- Automatic Tracking
- Eye safe Laser Range Finder
- Common LAV chassis
- General Dynamics Ordnance Systems,
Burlington, VT (22 Dec 95)
- Quantity: 16 (4th LAR Bn, CamPen)
1 (NSWC Crane, IN)

MILESTONE SCHEDULE

- | | |
|------------------------------------|--------|
| • Engineering devel contract award | Dec 87 |
| • DT-II test completed | Feb 91 |
| • R&D contract award | Jun 92 |
| • MDA directed more testing | May 94 |
| • DT/OT -IIB completed | Jul 94 |
| • RFP issued | Sep 95 |
| • MS-III Decision approval | Dec 95 |
| • Contract award | Dec 95 |
| • IOC (1st 4 vehicles) | Jun 98 |
| • FOC | Oct 98 |

CURRENT STATUS

- Undergoing Initial Production Testing (IPT)
- FOT&E completed 8 Aug; results being analyzed by MCOTEA
- 15 Systems delivered to date (11 shipped-in-place at GDAS being retrofitted - Sight)
- Anticipate completion of IPT and release of vehicles to the 4th LAR in Nov 98
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MOBILITY BLOCK IMPROVEMENT PROGRAM (MBI)

- "Silver Series" Engine, with Engine High Idle Kit
- ECP-type Improvement: Brake System Upgrade
 - - Tire Chains
 - - Steering Roller Bearings
 - - Engine Grill Swim Covers
 - - Laser Shielded M17 & M27 Periscopes
 - - Portable Tire Mounter/Demounters
 - - Power Pack Ground Hop Stand
- RDT&E Contracts - Non-competitive, DDC & DDGI
- Prod. Contracts - Non-competitive & competitive

MILESTONE SCHEDULE

| | |
|------------------------------|--------|
| MS I/II Decision | Jul 95 |
| RDT&E Contracts Awarded | Aug 95 |
| DT/OT Completed | Dec 95 |
| LAR | May 96 |
| MS-III Decision | May 96 |
| Production Contracts Awarded | Aug 96 |
| IPT Completed | Apr 97 |
| IOC | Oct 97 |
| FOC | Aug 99 |

CURRENT STATUS

- o 749 (81%) complete (either installed in LAVs or on the shelf)

- o 791 delivered by DDC

- o Program on schedule for Aug 99 FOC

POC: Mr. Carl Zink; DSN: 786-8369
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Date: Sep 98

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OTHER USMC PROGRAM SUPPORT

Joint Light NBC Recon System (JLNBCRS)

- JLNCBRS suite to be integrated into HMMWV & LAV
- 31 basic LAV-L chassis to be provided to integrator as GFE
- PM-LAV handling procurement of basic LAV-L chassis

Mobile Electronic Warfare Support System (MEWSS)

- Joint USMC/USA Program with USA the lead service
- PM-LAV assisting PM-Intel/Comm with MEWSS PIP on auto/hull issues

Applique Armor

- Emerging conflict with weight and coverage requirements
- Potential problem w/storage of solvent and adhesive (HAZMAT)
- Program under review

Enhanced C2 Variant

- Mar 98 - change to LAV ORD
- Apr 98 - IPT met to discuss revised performance requirements
- Leveraging efforts on the AAV program
- Prototype candidate system to be evaluated during the “Urban Warrior” exercise
- Draft performance specification for comment and release following Urban Warrior

LAV INTERNATIONAL PROGRAMS

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ACTIVE PROGRAMS

- SAUDI ARABIAN NATIONAL GUARD (SANG)
- - OTHER POTENTIAL INTEREST
 - - IRELAND
 - ISRAEL
 - TAIWAN
 - SANG (Added battalion)
 - US Army

SANG

PRODUCTION DELIVERIES TO-DATE

| • VARIANT | QUANTITIES REQUIRED | QUANTITIES DELIVERED |
|--------------------|------------------------|-------------------------|
| • LAV-25 | 384 | 384 |
| • LAV-Anti Tank | 111 | 111 |
| • LAV-Pers Carrier | 47 | 47 |
| • LAV-Recovery | 67 | 67 |
| • LAV-Comm/Control | 182 | 182 |
| • LAV-Engineer | 34 | 34 |
| • LAV-Ambulance | 71 | 71 |
| • LAV-Mortar | 73 | 4 |
| • LAV-Ammo Carrier | 18 | 0 |
| • LAV-Assault Gun | 130 | 0 |
| • Total Required | 1,117 | |
| • Total Delivered | | 900 |

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SANG 120mm Turreted Mortar

Characteristics

- Based on LAV Type 1 chassis (Marine Corps version)
- 120mm smooth bore, breech loaded Royal Ordnance Mortar weapon
- Mear HE, WP and Illum ammo (SANG directed source)
- Delco modified Vista fire control computer with English and Arabic capability
- 500-9200m range indirect fire
- 240-1000m direct fire
- -5 to +80 degrees elevation/full 360 deg weapon traverse
- 40 round ammo stowage capability
- Digital link with FDC

Mortar Planned Program

- Weapon/ammo certification Aug 97 - May 99
- System testing at YPG/NATC Mar 98 - Sep 99
- Recoil mech/barrel fatigue tests Mar - Jul 99
- System-level safety tests Mar - Apr 99
- RAM firing Mar - May 99
- Performance testing Mar - May 99
- RAM miles at NATC Nov 98 - Jan 99
- First production vehicle accepted May 99
- Deliveries to KSA Jul 99 - Dec 99
- Mortar/FDC/AC interop test at NATC Aug-Sep 99

MORTAR CURRENT STATUS

- Testing Program approximately seven months behind schedule
 - late weapon delivery
 - weapon/ammo safety and performance deficiencies
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- All other program milestones met
 - Test ammo delivery
 - Production chassis delivery
 - Test vehicle delivery
 - Software development
 - Log development

SANG Assault Gun

Characteristics

- 90mm Main Gun (CMI)
- Two-man Turret
- 28v Electric weapon/turret drive
- Gunner's Thermal/Day Sight with Cmdr Remote
- Commander's Panoramic Day Sight
- Digital Fire Control
- MECAR Unique 90mm Ammo
- Commander Loads Weapons
- LAV Gen II Chassis

LAV-AG(S)

Milestones to Contract Award

-
- OPM-SANG Review and USASAC/DSAA Oct 98
Signature of JBP Amendment Offer
- SANG Signs Amendment Oct 98
- Case Implemented Nov 98
- Issue Final RFP Nov 98
- Receipt of Contractor's Proposal Feb 99
- SANG Review of Proposal Complete Mar 99
- Contract Award Mar 99
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