U.S.ARMY

JOINT PROGRAM OFFICE JOINT LIGHT TACTICAL VEHICLES

JPO JLTV
2016 NDIA Tactical Wheeled Vehicle Conference Brief
COL Shane Fullmer

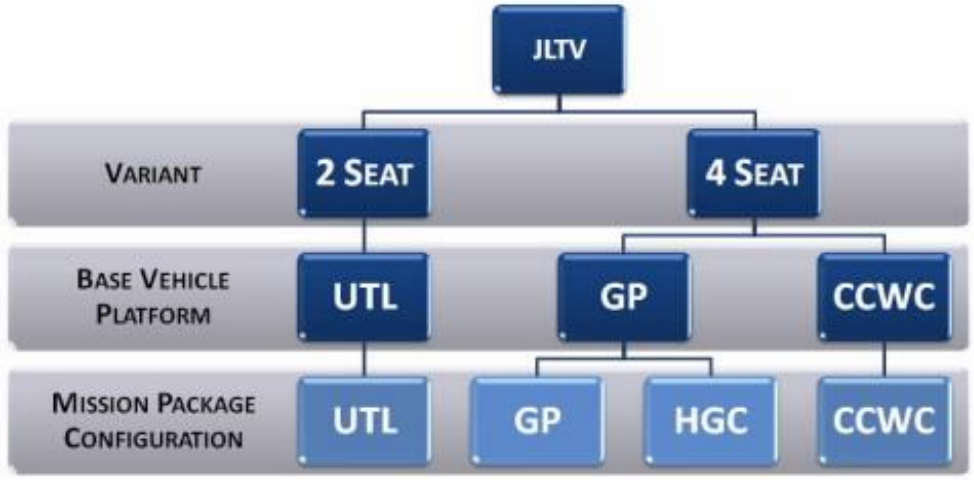
JLTV Program Description

The Joint Light Tactical Vehicle (JLTV) Family of Vehicles (FoV) is a Joint Army and Marine Corps program that provides vehicles, along with companion trailers, capable of performing multiple mission roles while providing *protected*, *sustained*, and *networked mobility* for personnel and payloads across the full spectrum of military operations.

- **CDD & CPD Approved:** *MAR 2012 & NOV 2014*
- **ACAT Level:** *1D*
- **MDA:** *Hon Frank Kendall*
- **Lead CAE:** *Ms. Katharina G. McFarland, Acting (ASA(ALT))*
- **Participating CAE:** *Mr. Sean Stackley (ASN(RDA))*
- **PEO:** *Mr. Scott Davis (USA)*
- **PEO:** *Mr. William Taylor (USMC)*
- **JPO:** *Colonel Shane Fullmer (USA)*
- **DJPO:** *Mr. Michael Sprang*
- **DJPO (USMC):** *Mr. Andrew Rodgers*

4 Seat
GP: General Purpose
CCWC: Close Combat Weapon Carrier
HGC: Heavy Gun Carrier

2 Seat
UTL: Utility



JLTV: Bridging the Gap
Capabilities Delivered

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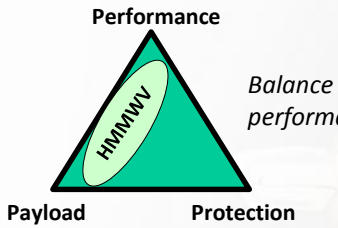
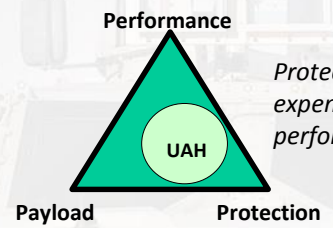
Achieving Operational Overmatch

- Expeditionary
- Transportability
- Lethality
- Survivability
- Increased Payload
- Configurable Mission Packages
- Reduced Operational Energy
- Network Ready



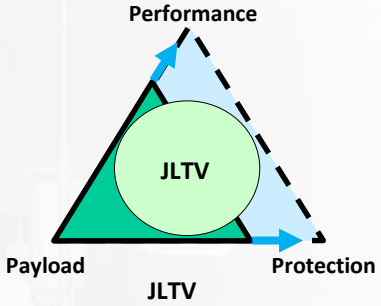
Balance between performance & payload

M1025 Armament Carrier



Protection added at expense of performance & payload

M1151 Armament Carrier



JLTV

Operational Solutions
(Bridge to JLTV)

Protection increased at expense of size and off-road mobility

Category I MRAPs

M-ATV

- **BACKGROUND / SCHEDULE:**
  - MS A 2007: 3 OEMs with Advanced Prototypes demonstrated in a relevant environment
    - Average Unit Manufacturing Cost (AUMC) and Average Procurement Unit Cost (APUC) were unaffordable
    - Combination of Cost Informed Trade Analysis (CITA), tiered and tradable requirements, contract type and competitive forces enabled significant reduction in cost/price
  - MS B August 2012: Full and Open competition selected three OEMs for EMD phase
    - Competitive Prototyping during EMD (2007 USD memo “Prototyping & Competition”)
      - Reduce Technical Risk, Validate Requirements and Cost
    - All technologies entered at TRL 6
    - Technologies are State-of-the-Practice; however, Technology Integration with extreme competing requirements is the Genius, eg, State-of-the-Art
  - MS C approved 25 August 2015 and a single winner (Best Value) for 8 year Low Rate Initial Production/Full Rate Production (LRIP/FRP) period of performance
    - Major Program Events accomplished include: LRIP/Production Contract Start of Work, Functional & Allocated Baseline Review, Logistics In Process Review and Product Baseline Review

Performance Risk "Burn Down"

1QTR FY09

Pathway to Production and Risk Reduction for JLTV

4QTR FY15

Technologies are State-of-the-Practice; however, technology integration with extreme competing requirements is the genius, which makes JLTV State-of-the-Art

TD Phase

- Award 1 QTR 09
- 3 competing vendors
- 7 JLTV Mission Equipment Packages

In compliance with Honorable Young's 2007 Prototyping and Competition directive, *'…provide for two or more competitors through EMD in order to reduce risk, validate designs, validate cost estimates, evaluate manufacturing processes and refine requirements'*

EMD Phase

- Award 4 QTR 12
- 3 competing vendors
- 4 JLTV Mission Equipment Packages
- 66 vehicles
- > 1000 test events
- > 500,000 miles driven
- > 50 life fire events

LRIP

- Award 4 QTR 15
- Single Vendor
- 4 JLTV Mission Equipment Packages
- Robust Test Scope resourced

JLTV System Requirements

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JLTV

Capability Development Document (CDD) version 3.6, 06 Jan 2012

Capability Production Document (CPD) approved by JROC 21 NOV 2014

Initial Operational Test: SEP 2017

Current Army Acquisition Objective (AAO) = 49,099

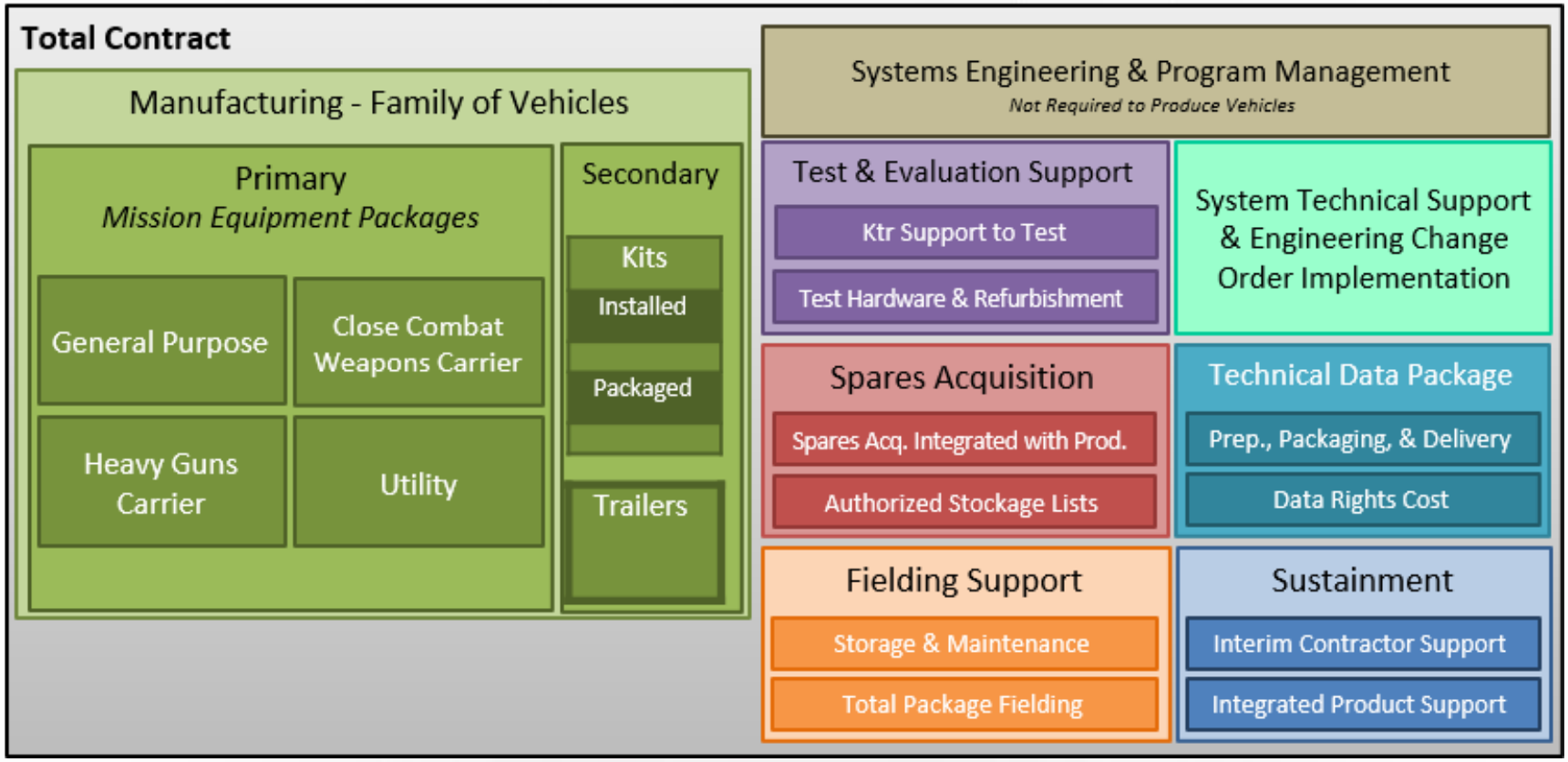
Current Marine Corps AAO = 5,500

Current Funded Quantity (FY15-22): 16,915; POM Years (FY16-20): 10,989

*** ADM deferred CH-53K requirement until the CH-53K Program achieves IOC, plus 180 days**

KPPs	Army	USMC	# of Tier 1 Direct Translations CPD to JLTV Purchase Description.
Force Protection	Classified		7
	Classified		
Mobility	Rating Cone Index (RCI) of 25 (T) in a single pass		2
	Ascend and descend coarse grained, dry sand (less than 1% moisture content) 30% (T) longitudinal slopes		
Transportability	1 per CH-47F (50 NM, Std Condition)	*2 per CH-53K (40 NM, H/H)	6
	[redacted]	Maritime Prepositioning Force (MPF) and Amphib Restricting Decks	
Survivability	Integrated structure with roof to support 100% of GVW		1
Payload	4 Seat CTV variants: 3,500 lbs (T) 2 Seat CSV variants: 5,100 lbs (T)		3
Sustainability	95% A_o (T); 80% A_m (T)		1
Net Ready	Full Net-Ready and Integrated		1
Training	Realistic training with existing technology and resources (T=O)		0
KSA	**Army**	**USMC**	
Reliability	2,400 MMBOMF (T); 11,700 MMBOMF (O)		1
Fuel Efficiency	Moving: 10 payload-ton-mpg; Stationary: 1.6 gal/hr (generating 10 kW)		2
O & S Cost ($B)	$36,888 (T) $33,535 (O) in BY12$M (54,599 vehicles)		0
AUMC (BY11) Base Vehicle w/o "B Kit" Armor	$250K (T); $225K (O)		0
Interoperability	Integrate GFE Items in the PIIT table		1
			Total = 25

Products and Services Being Procured



JLTV Technical Solution

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GENERAL PURPOSE (GP)

- 4 crew
- Base vehicle
- Payload 3,500 lbs

Heavy Guns Carrier (HGC)

- 4 crew + Gunner in Turret
- Supports standard crew served weapons with Gunner's Protection Kit.

- **A Family of Vehicles which provide reliable, and networked protected mobility for personnel and payloads across the spectrum of military operations to meet the expeditionary needs of Soldiers and Marines in today's complex world and into the future.**
- **Duramax Turbo Diesel engine with Allison 2500SP 6-spd automatic transmission. 4x4 TAK-4*i* Independent suspension system, 20" travel**
  - **HMMWV A2 like off-road performance, acceleration and speed on grade**
  - **Adjustable height suspension to fit in same spaces as HMMWV on MPF/Amphib ships**
- **Light enough to get there, heavy enough to carry protection and payload.**
- **Cab seating/crew protection: 2 and 4 person blast protected seats; Automatic Fire Suppression System**
- **TRANSPORTABLE by CH-47, CH-53, fixed-wing aircraft, and inside amphibious transports.**
- **Scalable Protection: Can be installed/removed. Protection Level Classified.**
- **CONNECTED as the first tactical vehicle purpose built for modern battlefield networks.**
- **AFFORDABLE throughout production, operations, and sustainment.**
- **Permits future upgrades/kits.**

Utility

- 2 crew
- Cargo delivery or shelter carrier
- Payload 5,100 lbs

TOW (Close Combat Weapons Carrier/CCWC)

- 4 crew + Gunner in Turret
- Support ant-tanks / Anti-Armor Heavy Weapons with Gunner's Protection Kit.

JLTV High Level Schedule

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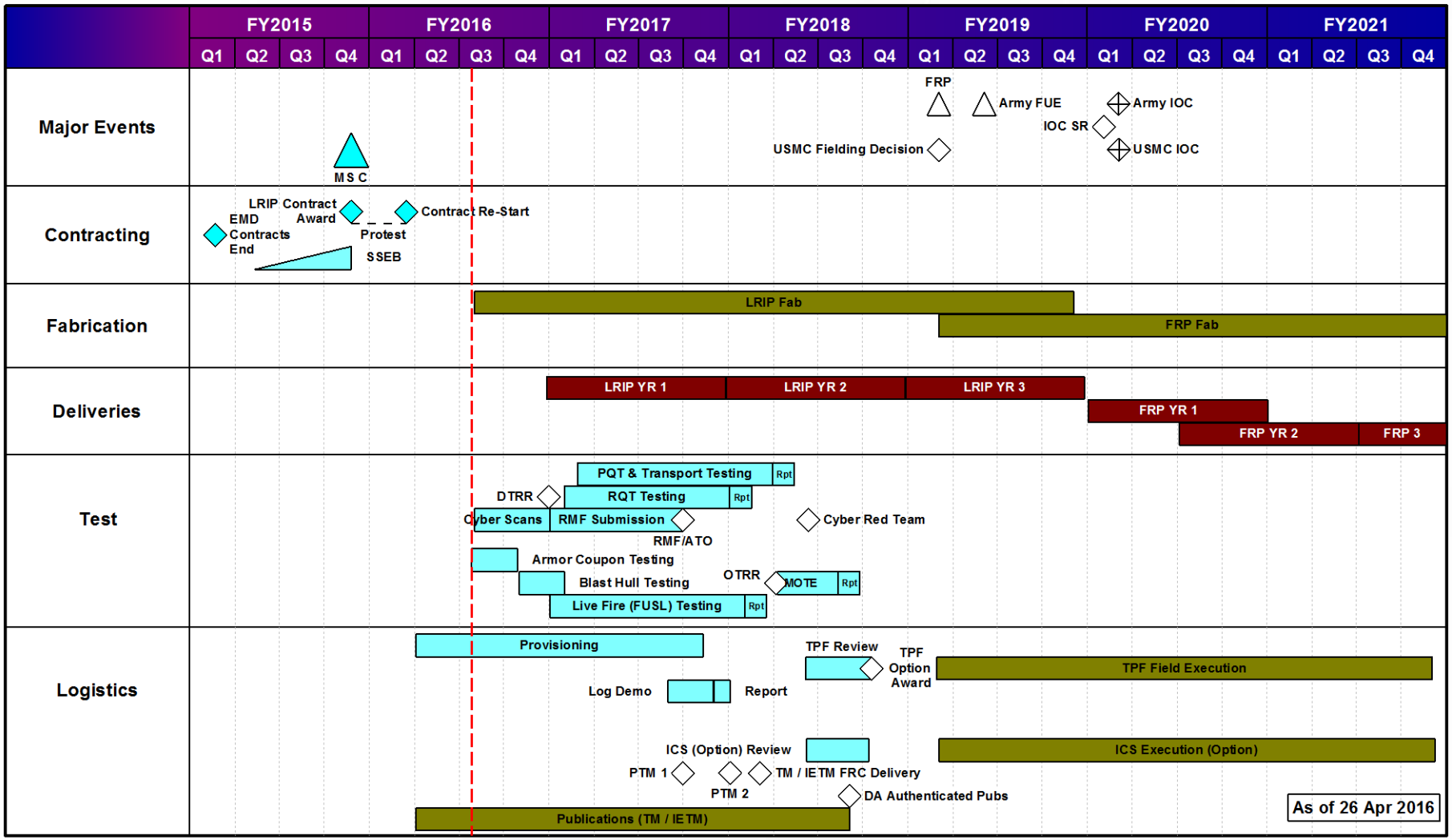

TODAY

Key:
- Gov't Action
- Ktr Action
- Ktr Delivery

Current & Future Acquisitions

- **LRIP / FRP Contract**
  - Base Award of $114M (USA $105M, USMC $9M)
  - Option to procure up to 16,901 vehicles (Total Contract Value $6.7B BY15)
    - LRIP up to 4,990 (FY15-18)
    - FRP 11,911 (FY18-22)
  - USMC planned acquisition of 5,500 is a program priority
  - Contract accommodates other services and FMS cases
  - Contract includes option to procure Technical Data Package (TDP)
    - JPO JLTV exercised the TDP option in 2nd quarter FY16
    - TDP provides the Government the ability to conduct a full and open re- compete for follow-on production contract
    - TDP covers all the specification and drawings necessary for a new contractor to build an identical truck
- **Follow-on Production Contracts**
  - Army intends to use full and open competition
  - Army will continue FRP for remaining quantity of more than 37,000
    - Total quantity = 49,099 [minus Army qualities purchased on first contract (~12,000)]

Future JLTV Business

- **Prospective partnering with LRIP vendor Additional Source of Supply/Competition**
  - Maintain cost and increase performance
  - Maintain performance and decrease cost
    - Primary mechanism is Value Engineering Change Proposal (VECP)
  - STS Work Directives
    - Increases performance
  - Logistics Support
    - Fielding and New Equipment Training
    - Training manual development, training aides and devices
    - Long term supply support activities
- **Potential opportunities to improve the JLTV Family of Vehicles**
  - Performance Beyond LRIP Contractual Requirements
    - Emerging Requirements Integrated though STS
    - Decrease Annual Operating Costs
      - Increase Reliability
      - Decrease Maintenance Ratios
      - Fuel efficiency improvements
      - Improve power capacity and density

System compliance requires constant assessment of integration, cyber, and impact to other requirements

Questions?