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Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

## **Selected Acquisition Report (SAR)**



## **Joint Light Tactical Vehicle (JLTV)**

**FY 2024 President's Budget**

**Defense Acquisition Visibility Environment  
(DAVE)**

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## Common Acronyms and Abbreviations

\$B - Billions of Dollars

\$K - Thousands of Dollars

\$M - Millions of Dollars

ACAT - Acquisition Category

Acq O&M - Acquisition-Related Operations and Maintenance

ADM - Acquisition Decision Memorandum

APB - Acquisition Program Baseline

APPN - Appropriation

APUC - Average Procurement Unit Cost

BA - Budget Authority/Budget Activity

Blk - Block

BY - Base Year

CAPE - Cost Assessment and Program Evaluation

CARD - Cost Analysis Requirements Description

CDD - Capability Development Document

CLIN - Contract Line Item Number

CPD - Capability Production Document

CY - Calendar Year

DAB - Defense Acquisition Board

DAE - Defense Acquisition Executive

DAMIR - Defense Acquisition Management Information Retrieval

DoD - Department of Defense

DSN - Defense Switched Network

EMD - Engineering and Manufacturing Development

EVM - Earned Value Management

FMS - Foreign Military Sales

FOC - Full Operational Capability

FRP - Full Rate Production

FY - Fiscal Year

FYDP - Future Years Defense Program

ICE - Independent Cost Estimate

Inc - Increment

IOC - Initial Operational Capability

JROC - Joint Requirements Oversight Council

KPP - Key Performance Parameter

LRIP - Low Rate Initial Production

MDA - Milestone Decision Authority

MDAP - Major Defense Acquisition Program

MILCON - Military Construction

N/A - Not Applicable

O&M - Operations and Maintenance

O&S - Operating and Support

ORD - Operational Requirements Document

OSD - Office of the Secretary of Defense

PAUC - Program Acquisition Unit Cost

PB - President's Budget

PE - Program Element  
PEO - Program Executive Officer  
PM - Program Manager  
POE - Program Office Estimate  
RDT&E - Research, Development, Test, and Evaluation  
SAR - Selected Acquisition Report  
SCP - Service Cost Position  
TBD - To Be Determined  
TY - Then Year  
U.S. - United States  
UCR - Unit Cost Reporting  
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

## Program Information

**Program Name**

Joint Light Tactical Vehicle

**DoD Component**

Army

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## Responsible Office

### Program Manager

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## Mission and Description

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## Executive Summary

### JLTV

#### Program Highlights Since Last Report

The JLTV is a Joint Army and U.S. Marine Corps (USMC) program for which the Army is the lead Service. The JLTV program capability requirements are stable, and funding is adequate to meet cost, schedule, and performance objectives established in the current approved APB. As reported in the 2019 SAR, the Program experienced a schedule deviation to Full Operational Capability (FOC) based on funding decrements. The MDA directed that a revised APB be submitted within 90 days of the follow-on contract award, which is scheduled for 2nd Quarter FY2023. It is anticipated that an FOC date 20 plus years in the future will continue to be impacted by Army priorities and requirements. The program will continue to report an expected non-compliance to the APB FOC threshold requirement until the APB is rebaselined. Additional OSD funding for Operation Energy Initiatives has caused an RDT&E cost deviation. Pending strategy decisions with the Milestone Decision Authority, if applied to current objective KSA requirement(s), this funding is assessed to be sufficient to support development. Since the last SAR report, the program did not realize an increase in programmatic or operational risk. The JLTV program is tracking the following four primary program risks; A2 (new engine) qualification delays, global supply chain, requirements creep and organic maintenance and parts support. These risks are actively managed with resourced risk mitigations in place. In March 2022, the JLTV-Trailer received Type Classification Approval, achieved Full Materiel Release, and completed First Unit Equipped fielding to 2-2ID. On August 15, 2022, the program received multiple proposals for the Follow-on JLTV Production Contract which is scheduled to be awarded in 2nd Quarter FY 2023. The Joint Program Office intends to competitively award the follow-on contract as a single award, five-year requirements contract with five, one year options. The expected value is estimated to be ~\$9.7B which will include approximately 20,700 JLTVs, 9,900 JLTV trailers, Delivery Orders for hardware, and Task Orders for services.

#### History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
Mar - 2022	On March 15, 2022, the JLTV-Trailer received Type Classification Approval.
Mar - 2022	On March 18, 2022, the JLTV-Trailer achieved Full Materiel Release (FMR).
Mar - 2022	On March 31, 2022, the JLTV-Trailer completed First Unit Equipped to 2-2 ID.
Sep - 2021	On September 29, 2021, JLTV achieved FMR. The Materiel Release Office converted the JLTV Family of Vehicles to FMR based on completion and formal closure of the JLTV Get Well Plan conditions.
Apr - 2020	Initial Operational Capability (IOC) was declared on April 23, 2020. JLTV has met the requirements and capabilities for IOC for the JLTV program. The system has been fully fielded to the 1st Armored Brigade Combat team, 3rd Infantry Division (1-3 ID). The Commander of 1-3 ID has certified that the unit is fully trained and has met its Mission Essential Task List in an operational environment with the JLTV during a National Training Center rotation at Fort Irwin, CA. All maintenance, support personnel, infrastructure are in place and New Equipment Training has been conducted to support 1-3 ID fielding of the JLTV (to include spares/repair parts) as outlined in the Material Fielding Agreement.
May - 2019	The Army Acquisition Executive (AAE) concurred with the information presented in the JLTV Full Rate Production (FRP) Army System Acquisition Review Council briefing dated May 30, 2019, which recommended approval to enter FRP. The FRP Acquisition Decision Memorandum was signed by the AAE on June 20, 2019.
Dec - 2018	Army System Acquisition Review Council approved fielding of Low Rate Initial Production (LRIP) production quantities under Conditional Material Release.
Dec - 2018	Approval of increase to LRIP quantity and awarded an additional 6,097 vehicles on November 27, 2018.

Dec - 2018	Army Requirements Oversight Council provided guidance to obtain Soldier assessment on situational awareness and provide additional information on noise, troop seats, and trailers.
Aug - 2018	Between February and April 2018, Army and USMC units participated in the JLTV Multi-Service Operational Test and Evaluation event. This was held at Twenty-Nine Palms, California, with a USMC Amphibious Assault mission conducted at Camp Pendleton, California. A total of 39 JLTVs ran approximately 36,500 miles during this event, which included unique mission cycles, helicopter sling load, amphibious landings, and road marches.
Aug - 2015	On August 25, 2015, the Milestone C Defense Acquisition Board (DAB) was successfully held and the Defense Acquisition Executive (DAE) signed the Acquisition Decision Memorandum (ADM) authorizing entrance into the Production and Deployment phase. The contract was awarded on the same day to Oshkosh Defense LLC. On September 8, 2015 a Stop Work Order was issued to Oshkosh after Lockheed Martin filed a protest with the Government Accountability Office(GAO). On December 15, 2015 the GAO dismissed the protest due to Lockheed Martin's notice of intent to file a Post-Award Bid Protest with the U.S. Court of Federal Claims (COFC). The Stop Work Order was officially cancelled and Oshkosh resumed work. On December 17, 2015 Lockheed Martin officially filed a complaint with the COFC. On February 12, 2016 the COFC denied their request for a preliminary injunction and shortly after on February 17, 2016 Lockheed Martin officially withdrew their protest of the JLTV contract award decision.
Aug - 2012	The Milestone B decision authorized entry into Engineering and Manufacturing Development (EMD).
Aug - 2012	Three firm-fixed price contracts with a total value of \$184.8M were awarded to the AM General LLC, Lockheed Martin Corporation and Oshkosh Defense LLC for a 27-month period of performance. The EMD phase included 14-months of performance, reliability and ballistic testing in order to validate that JLTV prototype vehicles achieve KPP and Key System Attribute thresholds and to support the source selection process for Production and Deployment. Each EMD vendor fabricated, assembled, tested and delivered a total of 66 prototype vehicles and 18 trailers (22-vehicles and six-trailers from each vendor), along with ballistic structures, armor coupons and other test assets, vendor-furnished kits, trailers and data requirements. In November 2014, the period of performance for all three contracts ended and all EMD testing successfully completed.
Jan - 2012	A full and open competition solicitation was issued using a best value tradeoff source selection process.
Oct - 2008	Three cost reimbursable contracts with a total value of \$239.8M were awarded under full and open competition to BAE Systems Land & Armaments, General Tactical Vehicles LLC and Lockheed Martin Corporation. Technology Development (TD) efforts included the design, development, modeling, simulation, fabrication, test and test support of 24 prototype JLTVs and companion trailers. The initial requirements proved very challenging for the TD prototypes. Consequently, the requirements evolved to incorporate lessons learned and were closely aligned with the capabilities and performance demonstrated by the TD vendors.
Dec - 2007	JLTV achieved Milestone A initiating the Technology Development (TD) phase.
Jan - 2007	JLTV is one of the first programs to fully implement the OSD September 2007 Competitive Prototyping policy which calls for two or more competing teams producing prototypes through Milestone B with the goal of reducing risk and synchronizing requirements.

## Schedule

### JLTV



Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Milestone B Complete	Aug 2012	Aug 2012	Aug 2012	Aug 2012	
Milestone C Complete	Aug 2015	Aug 2015	Aug 2015	Aug 2015	
Begin MOT&E Complete	Feb 2018	Feb 2018	Feb 2018	Feb 2018	
Complete MOT&E Complete	May 2018	Apr 2018	Apr 2018	Apr 2018	
FRP Decision Complete	Dec 2018	May 2019	May 2019	May 2019	
IOC Complete	Dec 2019	Dec 2019	Jun 2020	Apr 2020	
FOC Complete	Nov 2039	Nov 2039	May 2040	Nov 2049	Yes
<b>Notes</b>					

- On May 30, 2019, the Army System Acquisition Review Council approved JLTV to enter into Full Rate Production.
- The U.S. Marine Corps achieved IOC on August 2, 2019.

#### Deviation Explanation

As reported in the 2019 SAR, the estimate for FOC moved from November 2039 to November 2045 due to funding reductions of approximately \$1.34B in PB 2021 which resulted in a stretch-out of the Army procurement buy profile of approximately six years.

During the 2020 SAR reporting period, FOC moved from NOV 2045 to NOV 2047 due to funding reductions of approximately \$10M in FY 2021 and \$580M in PB 2022 (FY 2022 - 2026) which resulted in a stretch-out of the Army procurement buy profile of approximately 2 more years.

During the 2021 SAR reporting period, funding increased approximately \$277M in PB 2023 (FY 2023 – 2027), but the increase to inflation and updates based on the Follow On contract resulted in a stretch out of the Army procurement buy profile of 1 additional year which moved FOC from NOV 2047 to NOV 2048.

FOC estimate shifted to the right again from NOV 2048 to NOV 2049. The overall procurement funding increased by ~\$99.3M from PB 2023 to PB 2024 (FY2024 – 2028) however, the funding specific to the Truck line decreased by ~\$1.5M in the last year of the PB (FY 2028) which gets carried out through the end of production. Additionally, adjustments made to the overall Army vehicle quantity configurations resulted in a stretch out of the Army procurement buy profile of 1 additional year.

The full Army Procurement Objective of 49,099 will be fielded and our Soldiers considered proficient and combat deployable with the system by November 2049. It is anticipated that an FOC date 20 years in the future will continue to be impacted by Army priorities and requirements.

A Program Deviation Report was signed by the Milestone Decision Authority on March 3, 2020. The MDA directed that a revised APB be submitted within 90 days of the follow-on contract award, which is scheduled for 2nd Quarter FY 2023. The program will continue to report an expected non-compliance to the APB FOC threshold requirement until the APB is rebaselined.



## Performance

### JLTV

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold		Demonstrated Performance	Current Estimate/Actual	Deviation
(KPP) - Mobility					
	The JLTV mobility shall support continuous operation across worldwide terrains, climatic conditions, and soil types at speeds consistent with conducting fast-paced military operations. This includes paved primary road networks, gravel/dirt secondary roadways, single track trails with no manmade improvements, and cross-country terrain with no roads, routes, or well-worn trails. The JLTV at GVW shall be capable of traversing fine grain soils with an RCI of 22 in a single pass and also ascend and descend coarse grained, dry sand (less than 1% moisture content) 40% longitudinal slopes. The threshold applies within the confidence bounds of established soft soil test procedures.	The JLTV mobility shall support continuous operation across worldwide terrains, climatic conditions, and soil types at speeds consistent with conducting fast-paced military operations. This includes paved primary road networks, gravel/dirt secondary roadways, single track trails with no manmade improvements, and cross-country terrain with no roads, routes, or well-worn trails. The JLTV at GVW shall be capable of traversing fine grain soils with an RCI of 25 in a single pass and also ascend and descend coarse grained, dry sand (less than 1% moisture content) 30% longitudinal slopes. The threshold applies within the confidence bounds of established soft soil test procedures.	Rating Cone Index - Single Pass = 24;Sand Slopes =28%	Met Threshold	

(KPP) - Net-Ready					
	The JLTV FoV will achieve interoperability through the integration of Joint and Service C4I systems installed or mounted on the vehicle. JLTV NR KPP compliance with CJCSI 6212.01F is fulfilled via the systems described in the Platform Integration Information Table (see Table 5-4) and the Interoperability KSA.	(T=O). The JLTV FoV will achieve interoperability through the integration of Joint and Service C4I systems installed or mounted on the vehicle. JLTV NR KPP compliance with CJCSI 6212.01F is fulfilled via the systems described in the Platform Integration Information Table (see Table 5-4) and the Interoperability KSA.	Full Net-Ready and Integrated	Met Objective	
(KPP) - Payload					
	Combat Tactical Vehicles (CTVs including GP, HGC, and CCWC) shall have an on vehicle payload of 5,100lbs. CSV Utility: 11,000lbs. Utility variants shall transport the S250 LWMS, S-788 SICPS RWS, SECM and other Data Interchange shelters within the payload capabilities of the variant, current as of June 2011.	Combat Tactical Vehicles (CTVs including GP, HGC, and CCWC) shall have an on vehicle payload of 3,500lbs. CSV Utility: 5,100lbs. Utility variants shall transport the S250 LWMS, S-788 SICPS RWS, SECM and other Data Interchange shelters within the payload capabilities of the variant, current as of June 2011.	4 Seat CTV variants: 3,500 lbs; 2 Seat Utility variants: 5,100 lbs	Met Threshold	
(KPP) - Survivability					

	The JLTV FoV (at GVW) shall provide a crashworthy vehicle structure capable of maintaining structural integrity in a rollover; quantified as a crush resistant roof structure capable of supporting 150% of its own GVW after a dynamically applied impact load.	The JLTV FoV (at GVW) shall provide a crashworthy vehicle structure capable of maintaining structural integrity in a rollover; quantified as a crush resistant roof structure capable of supporting 100% of its own GVW after a dynamically applied impact load.	Integrated structure with roof to support 150% of Gross Vehicle Weight Rating (O)	Met Objective	
<b>(KPP) - Sustainment</b>					
	JLTV shall have an Ao of 98% and a Am of 85%.	JLTV shall have an Ao of 95% and a Am of 80%.	Ao = 97.7%;Am = 80%.	Met Threshold	
<b>(KPP) - System Training</b>					
	The JLTV shall have training for operators and maintainers that incorporates and leverages existing training techniques, methods, resources and licensing requirements of each Service. JLTV training shall include in-vehicle training to encompass demonstrating a capability to negotiate operationally relevant terrain profiles, which include basic organic vehicle instrumentation, controls and crew drills.	(T=O). The JLTV shall have training for operators and maintainers that incorporates and leverages existing training techniques, methods, resources and licensing requirements of each Service. JLTV training shall include in-vehicle training to encompass demonstrating a capability to negotiate operationally relevant terrain profiles, which include basic organic vehicle instrumentation, controls and crew drills.	Training Support Package was approved by the Combined Arms Support Command (CASCOT) on November 20, 2018	Met Objective	
<b>(KPP) - Transportability</b>					

<p>The JLTV FoV shall be transportable worldwide by air and sea modes to support strategic deployment and operational maneuver in accordance with service concepts and programs. Rotary Wing: General Purpose - USMC: 2x CH-53K 40NM high-hot @ GVW, USA: 1xCH-47F 50NM 4k/95F @ GVW, USA: 1xMH-47 30NM IAT 4k/95F @ECC. Heavy Guns Carrier - USMC: 2x CH-53K 40NM high-hot @ GVW, USA: 1xCH-47F 50NM 4k/95F @ GVW, USA: 1xMH-47 30NM IAT 4k/95F @ECC. Close Combat Weapons Carrier - USMC: 2x CH-53K 40NM high-hot @ GVW, USA: 1xCH-47F 50NM 4k/95F @ GVW, USA: 1xMH-47 30NM IAT 4k/95F @ECC. Utility (2 Seat) - USMC: 2x CH-53K 40NM high-hot @ GVW, USA: 1xCH-47F 50NM 4k/95F @ GVW, USA: 1xMH-47 30NM IAT 4k/95F @ECC. Utility (Shelter) - Not a KPP for JLTV Utility vehicles when carrying a shelter. Note: Range, temperature, and pressure data: 1) CH-53K: Navy High Hot: 91.5 deg</p>	<p>The JLTV FoV shall be transportable worldwide by air and sea modes to support strategic deployment and operational maneuver in accordance with service concepts and programs. Rotary Wing: General Purpose - USMC: 2x CH-53K 40NM high-hot @ECC, USA: 1xCH-47F 50NM SL/SD @ ECC. Heavy Guns Carrier - USMC: 2x CH-53K 40NM high-hot @ECC, USA: 1xCH-47F 50NM SL/SD @ ECC. Close Combat Weapons Carrier - USMC: 2x CH-53K 40NM high-hot @ECC, USA: 1xCH-47F 50NM SL/SD @ ECC. Utility (2 Seat) - USMC: 2x CH-53K 40NM high-hot @ECC, USA: 1xCH-47F 50NM SL/SD @ ECC. Utility (Shelter) - Not a KPP for JLTV Utility vehicles when carrying a shelter. Note: Range, temperature, and pressure data: 1) CH-53K: Navy High Hot: 91.5 deg F/33 deg C, 40NM flight; sea-level take off &amp; 3,000ft landing; 2) CH-47F high hot: 95 F / 35 deg C,</p>	<p>1xCH-47F 50NM SL/SD @ ECC. Received Transportability certification from Surface Deployment and Distribution Command Transportation Engineering Agency on September 22, 2021.CH-53K external lift requirement remains deferred until 180 days after the CH-53 Program achieves IOC.</p>	<p>Will Meet Threshold</p>	
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<p>F/33 deg C, 40NM flight; sea-level take off &amp; 3,000ft landing; 2) CH-47F high hot: 95 F / 35 deg C, 4,000 feet, 50NM; 3) CH-47F SL/SD: Sea Level / Standard Day (70 F), 50NM. Sealift. Transport by sea is an essential part of force deployment and a hallmark aspect of USMC Expeditionary capabilities. The USMC and Navy JLTV (CTV variants and the CSV Utility) shall be capable of being loaded into all deck spaces of the prepositioning and amphibious ships where current HMMWVs are loaded, including height restricted deck spaces of MPS and amphibious class ships.</p>	<p>4,000 feet, 50NM; 3) CH-47F SL/SD: Sea Level / Standard Day (70 F), 50NM. Sealift. Transport by sea is an essential part of force deployment and a hallmark aspect of USMC Expeditionary capabilities. The USMC and Navy JLTV (CTV variants and the CSV Utility) shall be capable of being loaded into all deck spaces of the prepositioning and amphibious ships where current HMMWVs are loaded, including height restricted deck spaces of MPS and amphibious class ships.</p>		
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#### Requirement Reference

Validated:

CPD dated November 21, 2014 as amended in August 21, 2018, March 22, 2019 and April 9, 2019.

#### Deviation Explanation

No deviations for this program/subprogram

#### Notes

- Field Level Maintenance (FLMNET) has been increased from 40 hours to 80 hours and includes additional training hours for suspension, engine/transmission and electrical systems. Training has been loaded into the TACOM Unit Training Assistance Program and verified by CASCOM and the TRADOC Capabilities manager during Army First Unit Equipped new equipment training.

## Acquisition Budget Estimate

JLTV

### Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2015	941.4	910.1	1,001.1	1,095.4	1,159.3	Yes
Procurement	2015	18,758.1	23,267.8	25,594.5	23,133.7	32,027.5	
MILCON	2015	0	0	0			
Acq. O&M	2015	0	165.6	182.2	179.6	240.8	
Total		19,699.5	24,343.5		24,408.7	33,427.6	
PAUC	2015	.360	.377	.415	.395	.541	
APUC	2015	.344	.361	.397	.376	.520	



**Appropriation Category Deviation Explanations**

RDT&E                      The JLTV Program will experience an RDT&E cost deviation when the President submits the budget in March due to an additional \$163.8M (\$126.8M BY\$15) received from the Office of the Secretary of Defense to fund Operational Energy Initiatives to include Anti-idle and Hybridization. This resulted in combined 20.4% growth in RDT&E.

**PAUC Deviation Explanation****APUC Deviation Explanation****Budget Notes**

Beginning in FY 2019, the Army realigned direct civilian personnel pay costs from RDT&E and Procurement investment accounts to O&M to provide additional transparency and auditability.

***Total End Item Quantity***

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	132	134
Procurement	64489	61599
O&M-Acquired		

**Quantity Notes**

Developmental quantity (current estimate) above includes 66 Army and 68 USMC vehicles.

Procurement quantity (current estimate) above includes 49,099 Army and 12,500 USMC vehicles.

The total PB 2024 estimate includes the procurement of 18,224 Army and 4,000 USMC trailers.

The Air Force and the Navy are procuring JLTVs independent of the JLTV acquisition program established in the Memorandum of Agreement between the Army and the Marine Corps.

## Unit Cost

JLTV

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:2015	Current UCR Baseline	Current Estimate	% Change
<b>Program Acquisition Unit Cost</b>			
Cost	24,343.5	24,408.7	
Quantity	64,621	61733	
Unit Cost	.377	.395	4.88%
<b>Average Procurement Unit Cost</b>			
Cost	23,267.8	23,133.7	
Quantity	64,489	61,599	
Unit Cost	.361	.376	4.03%
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:2012	Original UCR Baseline	Current Estimate	% Change
<b>Program Acquisition Unit Cost</b>			
Cost	22,780.2	23,435.0	
Quantity	54,730	61733	
Unit Cost	.416	.380	-8.65%
<b>Average Procurement Unit Cost</b>			
Cost	21,782.0	22,210.6	
Quantity	54,599	61,599	
Unit Cost	.399	.361	-9.52%
Cost Growth Details			
Current Baseline PAUC Breach Explanation			
Current Baseline APUC Breach Explanation			
Original Baseline PAUC Breach Explanation			
Original Baseline APUC Breach Explanation			
Impacts of Schedule Changes on Unit Cost			
Impacts of Performance Changes on Unit Cost			
Actions Taken or Proposed to Control Future Cost Growth			

**Unit Cost Notes:** The PB 2024 APUC (\$0.376) increased by 1.4% compared to the APUC reported in the 2021 SAR (\$0.371) due to the Army procurement buy profile being stretched out by 1 additional year.

***Risk and Sensitivity Analysis*****JLTV**

Risk and Sensitivity Analysis	
Current Procurement Cost(December - 2022)	
Original Baseline Estimate (October - 2012)	
<p>The JLTV JCP, approved on July 12, 2012 by Assistant Secretary of the Army for Financial Management &amp; Comptroller was used to establish the APB. The JCP cost model is a cost risk adjusted model and reflects a 50% Confidence Level in accordance with Army Cost Guidance, Army Regulation 11-18. The most significant cost drivers in the JLTV estimate are manufacturing costs for vehicles and add-on kits. Given the current and anticipated fiscal environment, there may be budgetary pressures on the program which may lead to a reduction in JLTV annual procurement quantities. The JCP cost model projects increases to vehicle unit costs with quantity reductions. However, prior to a production contract award, it is difficult to calculate the impact of changes in annual procurement quantity to the vehicle unit prices that a vendor would propose. Additionally, the JLTV FOV is made up of four vehicle configurations with unique unit prices and add-on kits, which are procured at lower densities relative to total vehicle quantities. The unit of measure for JLTV APUC and PAUC calculations is one JLTV. Adjustments to configuration mix or increased densities of add-on kit relative to vehicle quantities could also result in program unit cost increases. There is also cost risk associated with the length of the JLTV procurement program; production is planned through the year 2040. Due to the length of the production program and the difficulties in accurately forecasting future inflation increases, there is the potential for increased TY cost if inflation increases at a rate greater than projected in the OSD inflation rates.</p>	
Current Baseline Estimate (November - 2019)	
<p>The JLTV Joint Cost Position (JCP), approved on September 5, 2019 by the Army Acquisition Executive, was used to establish the FRP APB signed on November 19, 2019. The JCP cost model is a cost-risk adjusted model and reflects a 50% Confidence Level in accordance with Army Cost Guidance, Army Regulation 11-18. The most significant cost drivers in the JLTV estimate are manufacturing costs for vehicles, trailers and add-on kits. Given the current and anticipated fiscal environment, there may be budgetary pressures on the program which lead to a reduction in JLTV annual procurement quantities. The JCP cost model projects increases to vehicle unit costs with quantity reductions. The first production contract unit pricing is known but future contract pricing is not known making it difficult to calculate the impact of changes in annual procurement quantity based on vehicle unit prices that a future vendor would propose. Additionally, the JLTV Family of Vehicles (FOV) is made up of four vehicle configurations with unique unit prices as well as trailers and add-on kits, which are procured at lower densities relative to total vehicle quantities. The unit of measure for JLTV APUC and PAUC calculations is one JLTV truck. Adjustments to configuration mix or increased densities of add-on kits relative to vehicle quantities could also result in program unit cost increases. There is also cost risk associated with the length of the JLTV procurement program; production is planned through the year 2035. Due to the length of the production program and the difficulties in accurately forecasting future inflation increases, there is the potential for increased TY cost if inflation increases at a rate greater than projected in the OSD inflation rates.</p>	

Schedule Risk		
Current	2022-12-31	A2 Qualification Delays: If JLTV A2 qualification is not completed within 32 months after contract award (18 months after contract award for test article deliveries and 14 months for qualification testing) to include A2 design, technology enhancements, and NGVA, then the program will have a production break, a gap in fieldings, and inability to obligate funding for vehicle purchases.
Current	2022-12-31	Global Supply Chain: If costs do not come down to pre-COVID levels, then the program will likely see an increase in costs due to unplanned natural pandemic. Also, if components are not available, or as quickly available, within lead times identified during pre-COVID activities, then there is a highly likelihood that there will be production delays due to parts availability.
MS B	2012-08-01	If there are unexpected test delays or unforeseen mishaps, then the test program may not be completed within schedule. Risk mitigated by successfully working with the Army Test and Evaluation Command to effectively prioritize the timing of all testing which helped ensure test events were fully supported. Alternate test site agreements were obtained by Test Management Community which confirmed their availability when needed. Additionally, the successful execution of the CAPs mitigated test program issues. All EMD performance, ballistic, reliability, availability and maintainability testing, as well as the Limited Users Test were successfully completed and supported both the requirements of the LRIP down select process as well as the data requirements necessary for the successful Milestone C decision.
Technical Risks		
Current		Organic Maintenance and Parts Support: If the Army, organically, is unable to maintain and support the JLTV platform after ICS drawdown is complete, then units cannot maintain operational readiness.

Current		Requirements Creep: If new requirements continue to be generated post FRP, they will require new STS Work Directives that yield new ECPs and additional funding will be necessary, which could drive a potential cost breach to Program Acquisition Unit Cost (PAUC) and Average Procurement Unit Cost (APUC).
MS B		If contractors do not make efficient use of time provided for Government Furnished Equipment (GFE) integration or delays occur in procurement of long lead items, then integration of GFE Hardware and Software may be unsuccessful in EMD. Risk mitigated by quickly obtaining a signed ADM with immediate follow-on buys of Phase I long lead GFE. Joint Project Office JLTV effectively collaborated with GFE PMs and Original Equipment Manufacturers to acquire Interface Control Documents and temporary loans which helped ensure the GFE was delivered on time to the vendors at contract award.
MS B		If the JLTV Family of Vehicles does not meet the Mean Miles Between Operational Mission Failure and Mean Miles Between Hardware Mission Failure requirements, then the Key System Attributes will not be achieved. Risk mitigated by including design for Reliability/Maintainability language into the EMD contract and Purchase Description. All EMD repair actions were captured during shakedown and test. Data was analyzed and Materiel Reliability/Mean Time to Repair was predicted and reviewed at Scoring Conferences. Corrective Action Periods (CAP) were successfully executed which allowed the EMD vendors to implement corrective actions on subsystems/components which reduced maintenance requirements and decreased failure rates.
MS C		If the Cab / Armor design cannot defeat KPP Kinetic Energy and Underbody threats, then JLTV will not receive Full Material Release and may not receive a FRP decision.

MS C		If the system design cannot be certified for transportability, then JLTV will not receive Full Materiel Release and may not receive FRP decision.
MS C		If the system design cannot meet the Rating Cone Index and Sand Slope requirements, then JLTV will not receive Full Materiel Release and may not receive FRP decision.

## Low Rate Initial Production

### JLTV

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	08/20/2012	11/20/2018
Approved Quantity	3,100	11,087
Reference	Milestone B ADM	ADM for LRIP Quantity Increase
Start Year	2015	2015
End Year	2017	2017

#### Rationale if quantity exceeds 10% of the total number of articles to be procured:

The Current Total LRIP Quantity is more than 10% of the total production quantity of 61,599. The LRIP increase from the previously approved LRIP Quantity of 4,990 vehicles to 11,087 vehicles permitted an orderly increase in the production rate for the system which was sufficient to lead to FRP.

#### Notes

**Contracts & Efforts**

<b>Contract Data</b>	
Contract Number	W56HZV-15-C-0095
Effort Number	-1
Modification Number	P00937
Award Date	08/25/2015
Definitization Date	12/15/2015
Order Number	
CAGE Code/CAGE Legal Name	75Q65/Oshkosh Defense LLC
Contract Title	LRIP & FRP contract
Contract Address	Oshkosh, WI
Contracting Office	ACC-DTA
Supported Phase	Production
Contract Strategy	FAR 16.5 (IDDQ)
Contract Type	Multiple Types
Modification Date	December 21, 2022
Work Start Date	August 25, 2015
Technical Data Rights	Government Purpose License Rights to Technical Data--Noncommercial Items & Software
Work Completed	

<b>Contracts/Effort Price, Quantity, and Performance (TY\$M)</b>		
Initial Target Price	Current Target Price	
\$114.7	\$8,027.4	
Initial Ceiling Price	Current Ceiling Price	
Contractor EAC	PM EAC	
\$8,027.4	\$8,027.4	
Initial Quantity	Current Quantity	Delivered Quantity
201	24843	18587
BAC	BCWP	ACWP

BCWS	Cost Variance	Schedule Variance

**Contract Notes:**

Technical Data Rights:

Government Purpose Rights to noncommercial components.

Unlimited Rights to Form, Fit, Function, Interface, and Performance Data for Commercial Components (Limited Rights/

Restricted Rights to the detailed component designs).

This contract is comprised of a basic performance period plus eight option periods. Services are Cost Plus and Hardware is Firm Fixed Price.

**Current Contract Qty**

Army: 17,290

USMC: 5,884

Air Force: 751

Army Reserve: 60

Navy: 106

Department of State: 2

MEDCOM: 1

USAF-USMC/AF: 5

USA-CPI2: 2

USMC-FIRES: 2

FMS: 740

**Grand Total 24,843**

Total quantity includes RDT&E and Procurement funded vehicles. Delivered Quantity includes Army, USMC, FMS and sister services.

The Milestone Decision Authority (MDA) granted an Earned Value Management (EVM) waiver for the services performed under the cost-plus portions of the current production contract valued at over \$20M. This waiver was requested as the current contract is comprised of mostly firm-fixed-priced (FFP) hardware items, and the cost-plus services are level of effort and not appropriate for EVM. A subsequent waiver will be requested for each follow-on production contract.

**Factors Contributing to Cost Variance and Projected Effects on Program Costs****Factors Contributing to Schedule Variance and Projected Effects on Program Schedule**



External Government Activities

Activity Title		Government Entity		Supported Phase
CAGE			Work Start Date	
City			State/Province:	
Notes				

## Deliveries and Expenditures

JLTV

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	132	132	134	98.51%
Production	17,747	17,747	61,599	28.81%
Total Program Quantity Delivered	17879	17879	61733	28.96%

Expended and Appropriated (TY \$M)				
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Years Appropriated to date: 16

Total Years Appropriated Funding (Current Baseline): 44

Percent Years Appropriated: 36.36%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 28.62%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 21.12%

Total Acquisition Cost: 33,427.6

### Deliveries & Expenditures Notes:

Above data is through December 31st, 2022. Development Quantity above includes 90 RDT&E prototype vehicles purchased during the Technology Development and EMD phase.

## Operating and Support Costs

### JLTV

#### *O&S Cost Breakdown:*

Category (BY\$ Million)	JLTV
Unit-Level Manpower	8,620.2
Unit Operations	2,797.0
Maintenance	12,294.1
Sustaining Support	1,911.6
Continued System Improvements	1,706.3
Other	
<b>Total</b>	<b>27,329.2</b>

**Cost Estimate Source:** POE dated November 19, 2019

#### **O&S Cost Notes:**

A Joint Cost Position (JCP) was completed for the program during the 2019 SAR reporting period. The JCP was used as a basis for the FRP APB which was signed by the Army Acquisition Executive on November 19, 2019.

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
<b>Total O&amp;S</b>	30,271.3	33,298.4	27,329.2	48,025.3	

Note:

None

O&S Cost Deviation Explanation
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## ***Operating and Support Costs - Disposal and Unitized Costs***

### **JLTV**

#### **Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:**

Unitized O&S Cost = Total O&S Costs / Total Operational Vehicle Years where Total Operational Vehicle Years = Total Operating Vehicles x Economic Useful Life - Total O&S Costs: \$27,329.2M (BY\$ 2015)- Total Operational Vehicle Years: 1,231,980- Total Operating Vehicles: 61,599- Economic Useful Life: 20 Years

Sustainment Factors	System Name: JLTV	Antecedent System Name: HMMWV
Quantity to Sustain	61,599	107,251
Unit of Measure	Vehicle	Vehicle
Unit Expected Service Life	20	15-20+

#### **Base Year:**

Annual Unitized O&S Cost by Category Base Year \$ Unit:(\$K)	System Name: JLTV	Antecedent System Name: HMMWV
Unit-Level Manpower	7.0	8.9
Unit Operations	2.3	0.7
Maintenance	10.0	9.0
Sustaining Support	1.6	2.6
Continued System Improvements	1.4	0.6
Other	0.0	0.0
Total O&S	22.2	21.8

#### **Disposal/Demilitarization Cost Estimate**

(Base Year \$Millions)	System Name: JLTV	Antecedent System Name: HMMWV
Total Disposal	231.2	196.1

Cost Estimate Source - Disposal	
Type:	Program Office Estimate
Approval Authority and Date:	
Note:	
Disposal Cost Notes:	
Total Demilitarization Cost includes costs for disposal and transportation associated with disposal of JLTVs.	
Additional O&S Estimate Assumptions:	

**Sustainment Strategy:**

The Sustainment Strategy reflects peacetime Operational Tempo (OPTEMPO) as identified by sub-configuration by the Army and in JLTV Operation Mode Summary & Mission Profile for the USMC. Reduced OPTEMPO is used for Army training, Army Prepositioned Stocks and inactive USMC units. Interim Contractor Support begins in FY 2019 for Army and USMC fielding and will not exceed three years; sustainment then transitions to organic maintenance support. USMC Supply Support is required from IOC until fielding is complete. The Army and USMC maintenance concept is two levels of maintenance: Field and Sustainment. The JLTV will incur a condition-based overhaul, starting at ten years. Of the operational vehicles that are older than ten years, 2.4 percent per year will undergo condition-based overhaul. First and Final Fiscal years Operational: 2019; 2066

**Antecedent Estimate Assumptions:**

The Antecedent System is the High Mobility Multipurpose Wheeled Vehicle (HMMWV). Total and annual per vehicle O&S costs for HMMWV are based on the approved Operations & Sustainment Independent Cost Estimate (ICE) dated July 17, 2019. The ICE includes costs for the 6 primary HMMWV variants: M1151A1, M1152A2, M1165A1, M1167, M1097R1, and M997A3 and includes actual costs as available.\*15-20+ year EUL mix based on vehicle variant and realistic fleet plan analysis. First and Final Fiscal years Operational: 2007; 2050. These dates pertain to the Up-Armored HMMWV fleet.