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OFFICE OF PREPUBLICATION AND SECURITY REVIEW

JOINT LIGHT TACTICAL VEHICLE (JLTV)

December 2021 Selected Acquisition Report (SAR)



December 31, 2021

Department of the Army

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Executive Summary

Program Highlights Since Last Report (Congress): 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 Acquisition Program Baseline (APB). As reported in the 2019 SAR, the Program experienced a schedule deviation to Full Operational Capability (FOC) based on funding decrements. The Milestone Delegation Authority (MDA) directed that a revised APB be submitted within 90 days of the follow-on contract award, which is scheduled for 1st Quarter FY 2023. 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. Since the last SAR report, the program did not realize an increase in programmatic or operational risk.

The JLTV program is tracking the following five primary program risks: lack of effective competition for a follow on production contract; 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.

On April 23, 2020, Initial Operational Capability (IOC) was achieved ahead of the current APB threshold objective. The JLTV has met the requirements and capabilities for IOC. The system has been fully fielded to the 1st Armored Brigade Combat team, 3rd Infantry Division (1-3ID). 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 Materiel Fielding Agreement.

On August 26, 2021, the Army Developmental / Operational Test event at Fort Campbell, Kentucky was successfully completed. The purpose of the test was to gather information to assess a field artillery battalion's ability to accomplish fire missions employing the JLTV Fire Direction Center, JLTV Troop Seat Kit, JLTV Trailer, and JLTV Utility towing M119A3 howitzers.

On September 22, 2021, Surface Deployment and Distribution Command Transportation Engineering Agency granted transportability approval to the JLTV Family of Vehicles which consist of: Heavy Gun Carrier, Utility, General Purpose, and Close Combat variants. Planned updates to the Transportability approval include modal transport (lift or tiedown) with mounted shelters, low velocity airdrop for vehicles with the A1 engine, and Helicopter Sling Load under the CH-53K (remaining KPP) when

successful testing and modal certifications are successfully completed. On September 29, 2021, JLTV achieved Full Materiel Release (FMR).

A Follow-on JLTV Production Contract is scheduled to be awarded in 1st 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 ~\$7.3B, which will include approximately seventeen-thousand JLTVs, eight-thousand JLTV trailers, Delivery Orders for hardware, and Task Orders for services.

History of Significant Developments Since Program Initiation:

Date	Description
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.
Dec-2007	JLTV achieved Milestone A initiating the Technology Development (TD) phase.
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. 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.
Jan-2012	A full and open competition solicitation was issued using a best value tradeoff source selection process.
Aug-2012	The Milestone B decision authorized entry into 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.
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.
Apr-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. JLTVs ran approximately 36,500 miles during this event, which included unique mission cycles, helicopter sling load, amphibious landings, and road marches.
Nov-2018	Approval of increase to Low Rate Initial Production (LRIP) quantity and awarded an additional 6,097 vehicles on November 27, 2018.
Nov-2018	Army Requirements Oversight Council provided guidance to obtain Soldier assessment on situational awareness and provide additional information on noise, troop seats, and trailers.
Dec-2018	Army System Acquisition Review Council approved fielding of LRIP production quantities under Conditional Material Release.
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 ADM was signed by the AAE on June 20, 2019.
Apr-2020	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.
Sep-2021	On September 29, 2021, JLTV achieved Full Materiel Release (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.

Schedule

Schedule Events

Event Title (or Header)	Current Objective	Current Threshold	Current Estimate/Actual Date	Deviation ?
Milestone B	Aug-2012	Aug-2012	Aug-2012	
Milestone C	Aug-2015	Aug-2015	Aug-2015	
Begin Multi-Service Operational Test and Evaluation	Feb-2018	Feb-2018	Feb-2018	
Complete Multi-Service Operational Test and Evaluation	Apr-2018	Apr-2018	Apr-2018	

FRP	May-2019	May-2019	May-2019	
IOC	Dec-2019	Jun-2020	Apr-2020	
FOC	Nov-2039	May-2040	Nov-2048	Yes

<i>Schedule Notes:</i>	<i>Schedule Deviation Explanations:</i>
	<p>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.</p> <p>During the 2020 SAR reporting period, FOC moved from November 2045 to November 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.</p> <p>The FOC estimate shifted to the right again from November 2047 to November 2048. The 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.</p> <p>The full Army Procurement Objective of 49,099 will be fielded and our Soldiers considered proficient and combat deployable with the system by November 2048.</p>

Significant Schedule Risks

Event	Date	Description
MS B	8/1/2012	<p>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 Corrective Action Periods (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.</p>
Current	12/1/2021	<p>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</p>

		identified during pre-COVID activities, then there is a high likelihood that there will be production delays due to parts availability.
Current	12/1/2021	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 Next Generation Vehicle Architecture (NGVA), then the program will have a production break, a gap in fieldings, and inability to obligate funding for vehicle purchases.

Performance

Performance Attributes					
Current Objective	Current Threshold	Current Estimate	Deviation?	Demonstrated Performance	Date
Attribute Title:	Mobility KPP			KPP	
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 man made improvements, and cross-country terrain with no roads, routes, or well-worn trails. The JLTV at Gross Vehicle Weight	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 man made improvements, and cross-country terrain with no roads, routes, or well-worn trails. The JLTV at Gross Vehicle Weight shall be capable	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 man made improvements, and cross-country terrain with no roads, routes, or well-worn trails. The JLTV at Gross Vehicle Weight shall be capable		Rating Cone Index - Single Pass = 24; Sand Slopes =28%	8/1/2015

shall be capable of traversing fine grain soils with a Rating Cone Index 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.	of traversing fine grain soils with a Rating Cone Index 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.	of traversing fine grain soils with a Rating Cone Index 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.			
Attribute Title:	Transportability KPP			KPP	
The JLTV Family of Vehicles (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 – U.S. Marine Corps (USMC): 2x CH-53K 40 Nautical Miles (NM) high-hot @ Gross Vehicle Weight (GVW), U.S. Army (USA): 1xCH-47F 50NM 4 Thousand (k)/95 Fahrenheit (F) @ GVW, USA: 1xMH-47 30NM Internal Air Transport (IAT) 4k/95F @Essential	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	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		1xCH-47F 50NM SL/SD @ ECC. CH-53K external lift requirement remains deferred until 180 days after the CH-53 Program achieves IOC. Received Transportability certification from Surface Deployment and Distribution Command Transportation Engineering Agency on September 22, 2021.	

<p>Combat Configuration (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.</p> <p>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.</p> <p>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.</p> <p>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 Celsius ©, 40NM flight; sea-level take off & 3,000ft landing; 2) CH-47F high hot: 95 F / 35 deg C, 4,000 feet, 50NM;</p>	<p>@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 F/33 deg C, 40NM flight; sea-level take off & 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</p>	<p>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 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 & 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 (70F), 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</p>			
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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 (Combat Tactical Vehicle variants and the Combat Support Vehicle 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.	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.	prepositioning and amphibious ships where current HMMWVs are loaded, including height restricted deck spaces of MPS and amphibious class ships.			
Attribute Title:	Survivability KPP			KPP	
The JLTV Family of Vehicles (FoV) (at Gross Vehicle Weight (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	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)	8/1/2015

applied impact load.					
Attribute Title:	Payload KPP			KPP	
Combat Tactical Vehicles (CTVs including General Purpose (GP), Heavy Guns Carrier (HGC), and Close Combat Weapons Carrier (CCWC)) shall have an on vehicle payload of 5,100lbs. Combat Support Vehicle (CSV) Utility: 11,000lbs. Utility variants shall transport the S250 Light Weight Multipurpose Shelter (LWMS), S-788 Standardized Integrated Command Post System Rigid Wall Shelter (SICPS RWS), Shop Equipment Contact Maintenance (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 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 General Purpose 2011.		4 Seat CTV variants: 3,500 lbs; 2 Seat Utility variants: 5,100 lbs	1/1/2018
Attribute Title:	Sustainment KPP			KPP	
JLTV shall have an Operational Availability (Ao) of 98% and a Materiel Availability (Am) of 85%.	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%.	1/1/2018
Attribute Title:	Net-Ready KPP			KPP	

The JLTV Family of Vehicles (FoV) will achieve interoperability through the integration of Joint and Service C4I systems installed or mounted on the vehicle. JLTV Net-Ready (NR) KPP compliance with Chairman Joint Chiefs of Staff Instruction (CJCSI 6212.01F) is fulfilled via the systems described in the Platform Integration Information Table (see Table 5-4) and the Interoperability Key System Attribute (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		Full Net-Ready and Integrated	9/1/2018
Attribute Title:	System Training KPP			KPP	
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	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	(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		Training Support Package was approved by the Combined Arms Support Command (CASCOM) on November 20, 2018	1/1/2019

organic vehicle instrumentation, controls and crew drills.	organic vehicle instrumentation, controls and crew drills.	include basic organic vehicle instrumentation, controls and crew drills.			
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<i>Performance Notes:</i>	<i>Performance Deviation Explanations:</i>

Acquisition Budget Estimate

Total Acquisition Cost

Budget Year: 2023 Base Year: 2015

Appropriation Category (\$Millions)	Objective Base Year (Current APB)	Threshold Base Year (Current APB)	Budget Estimate Base Year	Budget Estimate Then Year	Deviation?
RDT&E	\$ 910.1	\$ 1,001.1	\$ 948.2	\$ 966.2	
Procurement	\$ 23,267.8	\$ 25,594.5	\$ 22,860.1	\$ 31,543.2	
MILCON	\$ 0.0	\$ 0.0	\$ 0.0	\$ 0.0	
Acq O&M	\$ 165.6	\$ 182.2	\$ 179.6	\$ 241.6	
Total Acquisition	\$ 24,343.5		\$ 23,987.9	\$ 32,751.0	
PAUC	\$ 0.377		\$ 0.389	\$ 0.531	
APUC	\$ 0.361		\$ 0.371	\$ 0.512	

Total End Item Quantity

Quantity	Current APB	Current Estimate
Development Qty	132	134
Procurement Qty	64,489	61,599

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.

Joint Procurement costs increased by 1.5% from the 2019 SAR. Funding was reduced by ~\$827M (~\$580M in PB2022 and ~247M in POM23), which resulted in a stretch out of the Army procurement buy profile of five additional years and one additional year for the USMC. The Army production schedule was pushed from FY 2041 to FY 2046 and from FY 2029 to FY 2030 for the USMC. USMC also updated the Approved Acquisition Objective (AAO) for both trucks and trailers. The USMC truck AAO was reduced from 15,390 to 12,500, but the USMC trailer AAO increased from 318 to 4,000.

Joint RDT&E increased by 3.0% from 2019 SAR, which was driven by stretching out the RDTE funding to account for the additional five years of Army production and one year for the USMC.

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 POM 2023 estimate includes the procurement of 18,224 Army and 4,000 USMC trailers.

U.S. Marine Corps (USMC) vehicle procurement quantity decreased from 15,390 to 12,500.

U.S Marine Corps (USMC) trailer procurement quantity increased from 318 to 4,000.

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.

Cost Deviation Explanations:

N/A

Risk and Sensitivity Analysis

Current Procurement Risks:

1. The JLTV Current Estimate is based upon the approved Joint Cost Position (JCP) completed for the FRP Decision and used to establish the FRP APB signed on November 19, 2019. The JLTV Current Estimate 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 JCP cost model projects vehicle unit costs throughout production. 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 Average Procurement Unit Cost (APUC) and Program Acquisition Unit Cost (PAUC) calculations is one JLTV. 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 2046. 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.

Unit Cost

Current Baseline Compared with Current Estimate

Current Baseline Base Year: 2015

Category (\$ Millions)	Current Baseline	Current Estimate	% Change	Breach? Significant or Critical
Program Acquisition Unit Cost				
Acquisition Cost	\$ 24,343.5	\$ 23,987.9		
Program Quantity	64,621	61,733		
PAUC	\$ 0.377	\$ 0.389	3.15%	None
Average Procurement Unit Cost				
Procurement Cost	\$ 23,267.8	\$ 22,860.1		
Procurement Quantity	64,489	61,599		
APUC	\$ 0.361	\$ 0.371	2.86%	None

Original Baseline Compared with Current Estimate

Original Baseline Base Year: 2012

Category (\$ Millions)	Original Baseline	Current Estimate	% Change	Breach? Significant or Critical
Program Acquisition Unit Cost				
Acquisition Cost	\$ 22,780.2	\$ 23,030.9		
Program Quantity	54,730	61,733		
PAUC	\$ 0.416	\$ 0.373	-10.37%	None
Average Procurement Unit Cost				
Procurement Cost	\$ 21,782.0	\$ 21,947.9		
Procurement Quantity	54,599	61,599		
APUC	\$ 0.399	\$ 0.356	-10.69%	None
Unit Cost Notes:				
The PB 2023 APUC (\$0.371) increased by 1.6% compared to the APUC reported in the 2019 SAR (\$0.365). Overall Procurement Costs increased by ~\$576M. The key driver resulted from funding reductions of ~1,288M in total for both services, which resulted in a stretch out of the Army procurement buy profile of three additional years and two additional years for the USMC. The USMC also increased their JLTV trailer AAO from 318 to 4,000.				

Contracts

Contract Number:	W56HZV-15-C-0095	Order Number:		Contract Title:	LRIP & FRP contract
CAGE Code	75Q65	City	Oshkosh		ACC-DTA
CAGE Legal Name	Oshkosh Defense LLC	State/Province	WI	Contract Strategy	FAR 16.5: Requirements
Effort Number					
Supportive Phase	Production	Latest Modification Number	POO659	Definitization Date	12/15/2015
Contract Type	Multiple Types	Latest Modification Date	11/15/2021	Work Start Date	8/25/2015
Technical Data Rights	Government Purpose	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).		
Contract/Effort Price, Quantity and Performance (\$M)					

Initial Target Price	\$ 114.70	Current Target Price	\$ 7,194.7	Contractor's EAC	\$ 7,194.7		
Initial Ceiling Price		Current Ceiling Price		PM's EAC	\$ 7,194.7		
Initial Quantity	201	BAC		BCWP		Work Completed	0.00%
Current Quantity	20,138	ACWP		BCWS		Cost Variance	
Delivered Quantity	15,004					Schedule Variance	
Factors Contributing to Cost Variance and Projected Effects on Program Costs:				Factors Contributing to Schedule Variance and Projected Effects on Program Schedule:			
Cost Variance reporting is not required on this (FFP/CPFF) contract.				Schedule Variance reporting is not required on this (FFP/CPFF) contract.			

Technologies and Systems Engineering

Significant Technical Risks

Event	Date	Description
MS B	8/1/2012	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 B	8/1/2012	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 C	8/1/2015	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	8/1/2015	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.
MS C	8/1/2015	If the system design cannot be certified for transportability, then JLTV will not receive Full Materiel Release and may not receive FRP decision.
Current	12/1/2021	Requirements Creep: If new requirements continue to be generated post FRP, they will require new System Technical Support Work Directives that yield new Engineering Change Proposals 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).
Current	12/1/2021	Organic Maintenance and Parts Support: If the Army, organically, is unable to maintain and support the JLTV platform after Interim Contractor Support drawdown is complete, then units cannot maintain operational readiness.
Current	12/1/2021	Lack of Effective Competition: If effective competition is not received in response to the Request For Proposal for the follow-on production contract then the program may experience cost growth.

Deliveries and Expenditures

Quantities	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	126	126	134	94.03%
Procurement	15,140	15,004	61,599	24.36%
Total	15,266	15,130	61,733	24.51%

Years Appropriated to date	14	Total Years Appropriated Funding (Current Baseline):	42	Percent Years Appropriated:	33.33%
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Appropriation Category (\$Millions)	Then Year Appropriated Amount	Then Year Expended Amount
RDT&E	840.72	824.12
Procurement	7,738.43	5,176.12
MILCON	0.00	0.00
Acq O&M	47.66	32.27
Total Appropriated/Expended	7,707.52	5,767.35
Percent Appropriated/Expended	26.34%	18.42%

Deliveries & Expenditures Notes:

Above data is for Appropriation Category is through February 28th, 2022.

Above data for the Quantities is through March 31st, 2022.

Development Quantity above includes 90 RDT&E prototype vehicles purchased during the Technology Development and EMD phase.

Low-Rate Initial Production

	Initial Decision LRIP	Current Total LRIP
Approval Date	8/20/2012	11/20/2018
Approval LRIP Quantity	3,100	11,087
Approval Document Title	Milestone B ADM	ADM for LRIP Quantity Increase
Start Year	2015	2015
End Year	2017	2017

<i>Rationale if quantity exceeds 10% of the total number of articles to be produced:</i>	<i>CUI: _____</i>
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.	
<i>Quantity Note:</i>	
<i>CUI: _____</i>	

Operating and Support (O&S) Cost Estimate

Total Program O&S Costs Compared with Baseline

	Current Base Year Objective	Current Base Year Threshold	Current Base Year Estimate	Current Then Year Estimate	Deviation?
Total O&S (\$Millions)	\$ 30,271.30	\$ 46,828.60	\$ 28,539.70	\$ 50,148.40	

Deviation Explanation:

Operating and Support Costs Breakdown

Category (Base Year \$Millions)	System Name: JLTV	System Name: HMMWV
Unit-Level Manpower	\$ 8,625.2	\$ 19,872.3
Unit Operations	\$ 2,838.9	\$ 4,225.2
Maintenance	\$ 12,334.4	\$ 11,130.0
Sustaining Support	\$ 1,900.8	\$ 13,709.7
Continued System Improvements	\$ 1,678.1	\$ 1,424.6
Other	\$ 1,162.3	\$ 7,433.8
Total O&S	\$ 28,539.7	\$ 57,795.6

Cost Estimate Source

Type: Other

Approval Authority and Date: 05 Sep 2019

Note: 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.

O&S Notes:

The JLTV O&S costs reflect peacetime operations.

RDT&E vehicles represent prototypes from Technology Development and EMD and vehicles for Live Fire and Destructive Testing during Production. Prototypes, Live Fire Test, and Destructive Test assets will not be fielded.

Procurement Quantity: 49,099 (Army) / 12,500 (U.S. Marine Corps (USMC))

The prior SAR included a cost element for 6.0 Indirect Support costs. Based on the latest OSD O&S Guide dated September 2020, this element is no longer considered as part of the O&S Cost Element Structure and has been removed.

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 (FY 2020) until fielding is complete (FY 2023).

The Army maintenance concept is two levels of maintenance: Field and Sustainment. The USMC maintenance concept is three levels of maintenance: Operator/Crew, 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.

Antecedent Information:

The Antecedent System is the High Mobility Multipurpose Wheeled Vehicle (HMMWV). Total and annual per vehicle O&S costs for HMMWV were provided by Army Product Manager Light Tactical Vehicles (PM LTV). This estimate is based on an operating schedule from FY 2015 to FY 2045 and includes actual HMMWV costs as available.

The HMMWV costs provided by PM LTV are for Army only.

Equation to Translate Annual Cost to Total 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: \$28,538.7M (BY\$ 2015)

Total Operational Vehicle Years: 1,231,980

Total Operating Vehicles: 61,599

Economic Useful Life: 20 Years