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RCS: DD-A&T(Q&A)823-279



Joint Light Tactical Vehicle (JLTV)

As of FY 2021 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

UNCLASSIFIED

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
\$B - Billions of Dollars
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
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
\$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
\$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
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
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name

Joint Light Tactical Vehicle (JLTV)

DoD Component

Army

Joint Participants

United States Marine Corps

Responsible Office

Mr. Michael Sprang
43087 Lake Street
Building 301 NE
Harrison Township, MI 48045-4941

michael.d.sprang.civ@mail.mil

Phone: 586-239-2984

Fax:

DSN Phone: 273-2984

DSN Fax:

Date Assigned: June 12, 2019

References

SAR Baseline (Production Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated April 27, 2016

Approved APB

Army Acquisition Executive (AAE) Approved Acquisition Program Baseline (APB) dated November 19, 2019

Mission and Description

The primary mission of the Joint Light Tactical Vehicle (JLTV) is to provide protected, sustained and networked light tactical mobility to the Joint forces capable of worldwide deployment across the full spectrum of military operations and mission profiles under all weather and terrain conditions.

The JLTV will be transportable over long distances within any theater of operations through numerous lift assets and options, from sealift and amphibious shipping to airlift (both fixed and rotary wing) and low velocity aerial delivery. It will provide mobility to reconnaissance units and direct fire in support of combat maneuver with substantial payload for personnel, equipment and supplies.

The JLTV will support command, control and communication in both stationary and on-the-move modes, enabling interoperability with Joint and coalition forces in decentralized operations over extended ranges in complex and dynamic operational environments.

System Description: the JLTV Family of Vehicles is comprised of two variants based upon a common automotive platform, a two-seat Combat Support Vehicle (CSV) and a four-seat Combat Tactical Vehicle (CTV) as well as a companion trailer. The two-seat CSV variant consists of one base vehicle platform: the Utility (UTL); which has a payload capacity of 5,100-pounds. The four-seat CTV variant consists of two base vehicle platforms: the General Purpose (GP) and the Close Combat Weapons Carrier (CCWC); which has a payload capacity of 3,500-pounds. Each base vehicle platform will be configured as mission package configurations such as the GP, Heavy Guns Carrier (HGC), CCWC, and UTL.

Executive Summary

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, performance, and near term schedule objectives established in the current approved APB with a deviation to FOC based on funding decrements. The Program will request direction from the Milestone Decision Authority at the Configuration Steering Board in 2nd Quarter FY 2020 on the appropriate time to re-baseline. It is anticipated that an FOC date 20 years in the future will continue to be impacted by Army priorities and requirements. 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: lack of effective competition for a follow on production contract; Requirements creep; successful validation of the Technical Data Package; and the transition from a Condition Material Release to Full Material Release. These risks are actively managed with resourced risk mitigations in place.

During the JLTV FRP Army Systems Acquisition Review Council (ASARC) held on December 10, 2018; the Army Acquisition Executive (AAE) and the Vice Chief of Staff, Army (VCSA) expressed concerns with proceeding with a FRP decision until two trades (situational awareness, noise) and two issues (troop seats, trailers) identified on November 30, 2018 by the Army Requirements Oversight Council (AROC) had been fully addressed and adjudicated. At that time, the AAE approved the JLTV Program to field LRIP produced systems under a Condition Material Release.

On March 22, 2019, the following decisions were approved by the Commanding General, Army Futures Command (AFC) and concurred by the VCSA respectively:

- **Situational Awareness:** It was determined that situational awareness could be optimized, based on cost and performance, by increasing rear door windows by 250% and incorporating a forward facing camera system. All previously produced and future JLTVs will incorporate this capability.
- **Noise:** JLTV interior and exterior noise levels are consistent with current systems within the Army inventory. Analysis conducted determined that external noise levels will be greatly enhanced by incorporating a muffler. Based on cost and performance trades, adding mufflers to the entire JLTV fleet is the path forward for external noise reduction. All previously produced and future JLTVs will incorporate this capability.
- **Troop Seats:** Analysis conducted by the Next Generation Combat Vehicle (NGCV) Cross Function Team (CFT) with support from the Joint Program Office (JPO) JLTV determined that a bench style troop seat will satisfy the immediate operational need. Recognizing the benefits of a rollover protected capability with restraints, the NGCV CFT identified an objective level of performance that allows the to pursue this capability as a future enhancement. The decision on the number of centrally funded Troop Seat Kits is being worked by the G3, G8, TRADOC, and AFC.
- **Trailers:** The JLTV Trailer requirement as currently written within the Capability Production Document satisfies the operational need, no requirement change is needed. To maintain JLTV mobility, the NGCV CFT recognized the need for a JLTV Trailer and recommended that the Army establish a trailer distribution plan and funding profile.

On May 30, 2019, the JLTV PM briefed the ASARC that the program is prepared to proceed into FRP. The PM briefed that the situational awareness improvements and noise reductions had been accepted during an Army Capabilities Board and trailer procurement quantity remains the last outstanding issue. The AAE and the MILDEP instructed the PM to expedite further noise reduction efforts and report emerging results when available. During user assessments held at Ft. Stewart, Soldiers reported that the bows/tarp of the troop seat kit were too high. AFC was asked to determine the appropriate height for the troop seat kit and provide this information to the JPO. The AAE, with concurrence by the Vice Chief of Staff, Army, approved all the PM's recommended decisions to include authorization to enter FRP. The program's ADM was signed later on June 20, 2019 and required the PM to finalize the APB based upon the JLTV Trailer decisions.

On June 7, 2019, the AROC approved fielding the JLTV and JLTV Trailer as a system and an initial trailer procurement of 7,523. On November 4th, the Commanding General of Army Futures Command approved the JLTV-T APO of 18,224 to close out the AROC task. On November 19th, the Army Acquisition Executive approved the JLTV FRP APB.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
January 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.
December 2007	JLTV achieved Milestone A initiating the Technology Development (TD) phase.
October 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.
January 2012	A full and open competition solicitation was issued using a best value tradeoff source selection process.
August 2012	The Milestone B decision authorized entry into EMD.
August 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.
August 2015	On August 25, 2015, the Milestone C DAB was successfully held and the DAE signed the 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.
April 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.
November 2018	Approval of increase to LRIP quantity and awarded an additional 6,097 vehicles on November 27, 2018.
November 2018	Army Requirements Oversight Council provided guidance to obtain Soldier assessment on situational awareness and provide additional information on noise, troop seats, and trailers.
December 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 Acquisition Decision Memorandum was signed by the AAE on June 20, 2019.

Threshold Breaches

APB Breaches

Schedule		<input checked="" type="checkbox"/>
Performance		<input type="checkbox"/>
Cost	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
O&S Cost		<input type="checkbox"/>
Unit Cost	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

Explanation of Breach

The schedule breach for FOC moved from November 2039 to November 2045 due to funding reductions of approximately \$1.34B in PB 2021. The full Army Procurement Objective of 49,099 will be fielded and our Soldiers considered proficient and combat deployable with the system by November 2045.

The Program will request direction from the Milestone Decision Authority at the Configuration Steering Board in 2nd Quarter FY 2020 on the appropriate time to re-baseline. It is anticipated that an FOC date 20 years in the future will continue to be impacted by Army priorities and requirements.

Nunn-McCurdy Breaches

Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Program Deviation Report is in process.

Schedule



Schedule Events					
Events	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	
Milestone B	Aug 2012	Aug 2012	Aug 2012	Aug 2012	
Milestone C	Aug 2015	Aug 2015	Aug 2015	Aug 2015	
Begin MOT&E	Feb 2018	Feb 2018	Feb 2018	Feb 2018	
Complete MOT&E	May 2018	Apr 2018	Apr 2018	Apr 2018	
FRP Decision	Dec 2018	May 2019	May 2019	May 2019	
IOC	Dec 2019	Dec 2019	Jun 2020	May 2020	(Ch-1)
FOC	Nov 2039	Nov 2039	May 2040	Nov 2045¹	(Ch-2)

¹ APB Breach

Change Explanations

(Ch-1) The current estimate for IOC moved from December 2019 to May 2020 due to the improved clarity with the IOC unit's training schedule.

(Ch-2) The current 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 6 years.

Notes

On May 30, 2019, the Army System Acquisition Review Council approved JLTV to enter into FRP. The FRP ADM was signed by the Army Acquisition Executive on June 20, 2019.

The above IOC is for the Army. The U.S. Marine Corps achieved IOC on August 2, 2019.

JPO JLTV will begin the IOC process upon the unit's return from their major training event at Fort Irwin National Training Center in March of 2020. JLTV's First Unit Equipped (1-3 ABCT from Fort Stewart) was selected as the IOC unit.

The full APO of 49,099 will be fielded and our Soldiers considered proficient and combat deployable with the system by November 2045. The Program will request direction from the Milestone Decision Authority at the Configuration Steering Board in 2nd Quarter FY 2020 on the appropriate time to re-baseline. It is anticipated that an FOC date 20 years in the future will continue to be impacted by Army priorities and requirements.

Acronyms and Abbreviations

ABCT - Armored Brigade Combat Team

APO - Army Procurement Objective

JPO - Joint Program Office

MOT&E - Multi-Service Operational Test and Evaluation

Performance

Performance Characteristics				
SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Demonstrated Performance	Current Estimate
Mobility 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 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 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.	*	*
Transportability KPP				
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,	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,	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	*	*

<p>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 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 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>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 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 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>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 & 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>
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Survivability KPP

The JLTV FoV (at GVW) shall provide a crashworthy	The JLTV FoV (at GVW) shall provide a crashworthy	The JLTV FoV (at GVW) shall provide a	*	*
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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.	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.	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.		
Payload KPP				
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 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.	*	*
Sustainment KPP				
JLTV shall have an Ao of 98% and a 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%.	*	*
Net-Ready KPP				
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.	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.	*	*
System Training KPP				
The JLTV shall have training for operators and maintainers that incorporates and leverages existing training techniques, methods, resources and licensing	The JLTV shall have training for operators and maintainers that incorporates and leverages existing training techniques, methods, resources and licensing	(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.	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.	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.		
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Classified Performance information is provided in the classified annex to this submission.

Requirements Reference

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

Change Explanations

None

Notes

* In accordance with Section 830 of the FY 2020 National Defense Authorization Act, ~~For Official Use Only~~ data in this SAR section has been eliminated. This data is available upon Congressional request to the Office of the Under Secretary of Defense for Acquisition and Sustainment.

Acronyms and Abbreviations

@ - at
Am - Materiel Availability
Ao - Operational Availability
ATO - Approval to Operate
C - Celsius
CCWC - Close Combat Weapons Carrier
CJCSI - Chairman Joint Chiefs of Staff Instruction
CSV - Combat Support Vehicle
CTV - Combat Tactical Vehicle
DAA - Designated Approval Authority
Deg - Degree
DoD IEA - DoD Information Enterprise Architecture
DoDAF - DoD Architecture Framework
ECC - Essential Combat Configuration
F - Fahrenheit
FoV - Family of Vehicles
ft - Feet
GESP - GIG Enterprise Service Profiles
GIG - Global Information Grid
GP - General Purpose
GVW - Gross Vehicle Weight
HGC - Heavy Guns Carrier
HMMWV - High Mobility Multi-Purpose Wheeled Vehicle
IAT - Internal Air Transport
IP - Internet Protocol
IT - Information Technology
JTRS - Joint Tactical Radio System
k - Thousand
KSA - Key System Attribute
lbs - Pounds
LWMS - Light Weight Multipurpose Shelter
MPS - Maritime Pre-Positioning Squadron
nm - Nautical Miles - NM is used in the Performance Characteristics
RCI - Rating Cone Index
SAASM - Selective Availability Anti-Spoofing Module
SECM - Shop Equipment Contact Maintenance
SICPS RWS - Standardized Integrated Command Post System Rigid Wall Shelter
SL/SD - Sea Level / Standard Day
TV-1 - Technical Standards Profile
USA - U.S. Army
USMC - U.S. Marine Corps

Track to Budget

RDT&E

Appn	BA	PE	
Navy	1319	04	0603635M
	Project	Name	
	3209	Marine Corps Grnd Cmbt/Supt Sys (Sunk)	
	Notes: Funding line used through FY 2012		
Navy	1319	04	0605812M
	Project	Name	
	3209	Joint Light Tactical Vehicle (Sunk)	
	Notes: Funding line FY 2013 - FY 2017		
Navy	1319	05	0605813M
	Project	Name	
	3209	Joint Light Tactical Vehicle	
	Notes: Funding line FY 2018 and beyond		
Army	2040	04	0603804A
	Project	Name	
	L04	Joint Light Tactical Vehicle (JLTV) - Advanced Development (AD) (Sunk)	
	Notes: Funding line used from FY 2008 - FY 2011		
Army	2040	05	0604804A
	Project	Name	
	L50	Joint Light Tactical Vehicle (JLTV) - System Development and Demonstration (SDD) (Sunk)	
	Notes: Funding line used FY 2012		
Army	2040	05	0605812A
	Project	Name	
	VU9	Joint Light Tactical Vehicle - Engineering and Manufacturing Development (EMD)	
	Notes: Funding line FY 2013 and beyond		

Procurement

Appn	BA	PE
Navy	1109	05
		0206211M
Line Item	Name	
5095	Joint Light Tactical Vehicle	
Notes: Funding starts FY 2015		

Army 2035 01 0216300A

Line Item	Name
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D15603 Joint Light Tactical Vehicle

Notes: Funding starts FY 2015

Acq O&M

Appn	BA	PE
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Army 2020 04 0702806A

Subactivity Group	Name
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435 Acquisition and Management (Shared)
Support: Joint Light Tactical Vehicle

Notes: Funding line FY 2019 and beyond

Cost and Funding

Cost Summary

Total Acquisition Cost						
Appropriation	BY 2015 \$M			BY 2015 \$M	TY \$M	
	SAR Baseline Production Estimate	Current APB Production Objective/Threshold		Current Estimate	SAR Baseline Production Estimate	Current APB Production Objective
RDT&E	941.4	910.1	1001.1	923.3	940.0	903.5
Procurement	18758.1	23267.8	25594.5	23522.6	23604.0	29179.7
Flyaway	--	--	--	22116.4	--	--
Recurring	--	--	--	20612.9	--	--
Non Recurring	--	--	--	1503.5	--	--
Support	--	--	--	1406.2	--	--
Other Support	--	--	--	1162.0	--	--
Initial Spares	--	--	--	244.2	--	--
MILCON	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	165.6	182.2	179.8	0.0	212.1
Total	19699.5	24343.5	N/A	24625.7	24544.0	30295.3

Current APB Cost Estimate Reference

JLTV Joint Cost Position dated September 05, 2019

Cost Notes

CAPE Cost Risks: 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. Risks in the estimate include:

- If material costs increase, then manufacturing costs will increase.
- Variability in Add-on-Kit densities. If current model densities are lower than required, then the program could experience cost growth that will impact the program unit cost.
- O&S Costs are based on Multi-Service Operational Test & Evaluation (MOT&E) which if fielded vehicles are not indicative of MOT&E vehicles, then program O&S costs could either increase or decrease.

The FRP APB includes a procurement quantity increase from 5,500 to 15,390 U.S Marine Corps (USMC) vehicles, the procurement of 18,224 Army and 318 USMC trailers, and inclusion of the approved situational awareness, noise reduction and troop seat solutions. Updates to the current estimate includes funding reductions in PB 2021 which resulted in a stretch-out of the Army procurement buy profile of approximately six years.

For the JLTV program the unit of measure for APUC and PAUC calculations is one vehicle.

Total Quantity			
Quantity	SAR Baseline Production Estimate	Current APB Production	Current Estimate
RDT&E	118	132	132
Procurement	54599	64489	64489
Total	54717	64621	64621

Quantity Notes

- U.S. Marine Corps (USMC) procurement quantity increased from 5,500 to 15,390
- The total PB 2021 estimate includes the procurement of 18,224 Army and 318 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. The following funding and correlated quantities are not included in the JLTV APB or the cost and funding charts displayed above.

Forecasted Air Force Requirements

	Prior	FY 2019	FY 2020	FY 2021
Proc:TY\$M	\$ 53.080	\$ 46.177	\$73.026	\$ 80.629
JLTV Qty	125	103	140	200
Trailer Qty	0	0	6	16

The table above represents Air Force's PB 2021 budget request dated February 2020 to procure JLTVs and trailers.

Forecasted Navy Requirements

	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Proc:TY\$M	\$ 1.260	\$ 3.427	\$ 9.613	\$ 11.143	\$ 8.183	\$ 9.606	\$ 4.889	\$ 6.496
Qty	3	8	22	25	18	20	10	13

The table above represents Navy's PB 2021 budget request dated February 2020 to procure JLTVs.

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2021 President's Budget / December 2019 SAR (TY\$ M)									
Appropriation	Prior	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
RDT&E	822.6	9.3	4.2	3.8	5.2	4.1	4.1	74.9	928.2
Procurement	4039.1	1528.0	1276.1	1034.4	1146.6	1260.7	1269.5	19413.1	30967.5
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	11.0	10.7	12.6	12.8	13.1	13.2	13.4	149.8	236.6
PB 2021 Total	4872.7	1548.0	1292.9	1051.0	1164.9	1278.0	1287.0	19637.8	32132.3
PB 2020 Total	4922.8	1569.6	1594.0	1551.6	1533.6	1542.0	1574.7	11422.7	25711.0
Delta	-50.1	-21.6	-301.1	-500.6	-368.7	-264.0	-287.7	8215.1	6421.3

Funding 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.

The To Complete dollars include program funding from FY 2026 through FY 2049 (FY 2043 for Army and FY 2049 for USMC to fund Government System Integration Labs through the end of vehicle operation).

Quantity Summary										
FY 2021 President's Budget / December 2019 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	To Complete	Total
Development	132	0	0	0	0	0	0	0	0	132
Production	0	11136	3447	2672	2166	2458	2696	2617	37297	64489
PB 2021 Total	132	11136	3447	2672	2166	2458	2696	2617	37297	64621
PB 2020 Total	132	10885	3928	3666	3727	3632	3632	3716	25004	58322
Delta	0	251	-481	-994	-1561	-1174	-936	-1099	12293	6299

Cost and Funding

Annual Funding By Appropriation

Annual Funding							
2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	105.2
2009	--	--	--	--	--	--	20.5
2010	--	--	--	--	--	--	26.3
2011	--	--	--	--	--	--	33.4
2012	--	--	--	--	--	--	84.5
2013	--	--	--	--	--	--	59.2
2014	--	--	--	--	--	--	81.4
2015	--	--	--	--	--	--	28.3
2016	--	--	--	--	--	--	21.6
2017	--	--	--	--	--	--	11.1
2018	--	--	--	--	--	--	13.8
2019	--	--	--	--	--	--	--
2020	--	--	--	--	--	--	7.2
2021	--	--	--	--	--	--	1.7
2022	--	--	--	--	--	--	1.8
2023	--	--	--	--	--	--	1.8
2024	--	--	--	--	--	--	2.0
2025	--	--	--	--	--	--	2.0
2026	--	--	--	--	--	--	2.3
2027	--	--	--	--	--	--	1.9
2028	--	--	--	--	--	--	3.0
2029	--	--	--	--	--	--	2.0
2030	--	--	--	--	--	--	3.7
2031	--	--	--	--	--	--	5.3
2032	--	--	--	--	--	--	4.3
2033	--	--	--	--	--	--	8.3
2034	--	--	--	--	--	--	4.5
2035	--	--	--	--	--	--	4.5
2036	--	--	--	--	--	--	4.6
2037	--	--	--	--	--	--	4.7
2038	--	--	--	--	--	--	4.8
2039	--	--	--	--	--	--	4.9
2040	--	--	--	--	--	--	5.0
2041	--	--	--	--	--	--	0.4
Subtotal	64	--	--	--	--	--	566.0

Annual Funding 2040 RDT&E Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	114.9
2009	--	--	--	--	--	--	22.1
2010	--	--	--	--	--	--	27.9
2011	--	--	--	--	--	--	34.8
2012	--	--	--	--	--	--	86.7
2013	--	--	--	--	--	--	59.7
2014	--	--	--	--	--	--	80.5
2015	--	--	--	--	--	--	27.5
2016	--	--	--	--	--	--	20.8
2017	--	--	--	--	--	--	10.5
2018	--	--	--	--	--	--	12.8
2019	--	--	--	--	--	--	--
2020	--	--	--	--	--	--	6.4
2021	--	--	--	--	--	--	1.5
2022	--	--	--	--	--	--	1.6
2023	--	--	--	--	--	--	1.5
2024	--	--	--	--	--	--	1.7
2025	--	--	--	--	--	--	1.6
2026	--	--	--	--	--	--	1.8
2027	--	--	--	--	--	--	1.5
2028	--	--	--	--	--	--	2.3
2029	--	--	--	--	--	--	1.5
2030	--	--	--	--	--	--	2.7
2031	--	--	--	--	--	--	3.8
2032	--	--	--	--	--	--	3.0
2033	--	--	--	--	--	--	5.8
2034	--	--	--	--	--	--	3.1
2035	--	--	--	--	--	--	3.0
2036	--	--	--	--	--	--	3.0
2037	--	--	--	--	--	--	3.0
2038	--	--	--	--	--	--	3.0
2039	--	--	--	--	--	--	3.0
2040	--	--	--	--	--	--	3.0
2041	--	--	--	--	--	--	0.2
Subtotal	64	--	--	--	--	--	556.2

Annual Funding							
1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	38.7
2009	--	--	--	--	--	--	40.7
2010	--	--	--	--	--	--	47.8
2011	--	--	--	--	--	--	18.3
2012	--	--	--	--	--	--	45.1
2013	--	--	--	--	--	--	35.5
2014	--	--	--	--	--	--	52.9
2015	--	--	--	--	--	--	7.2
2016	--	--	--	--	--	--	24.8
2017	--	--	--	--	--	--	7.4
2018	--	--	--	--	--	--	18.9
2019	--	--	--	--	--	--	--
2020	--	--	--	--	--	--	2.1
2021	--	--	--	--	--	--	2.5
2022	--	--	--	--	--	--	2.0
2023	--	--	--	--	--	--	3.4
2024	--	--	--	--	--	--	2.1
2025	--	--	--	--	--	--	2.1
2026	--	--	--	--	--	--	2.5
2027	--	--	--	--	--	--	2.2
2028	--	--	--	--	--	--	3.3
2029	--	--	--	--	--	--	2.3
2030	--	--	--	--	--	--	0.4
Subtotal	68	--	--	--	--	--	362.2

Annual Funding 1319 RDT&E Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2008	--	--	--	--	--	--	42.4
2009	--	--	--	--	--	--	44.0
2010	--	--	--	--	--	--	50.9
2011	--	--	--	--	--	--	19.0
2012	--	--	--	--	--	--	46.1
2013	--	--	--	--	--	--	35.9
2014	--	--	--	--	--	--	52.8
2015	--	--	--	--	--	--	7.1
2016	--	--	--	--	--	--	24.0
2017	--	--	--	--	--	--	7.0
2018	--	--	--	--	--	--	17.6
2019	--	--	--	--	--	--	--
2020	--	--	--	--	--	--	1.9
2021	--	--	--	--	--	--	2.2
2022	--	--	--	--	--	--	1.7
2023	--	--	--	--	--	--	2.9
2024	--	--	--	--	--	--	1.7
2025	--	--	--	--	--	--	1.7
2026	--	--	--	--	--	--	2.0
2027	--	--	--	--	--	--	1.7
2028	--	--	--	--	--	--	2.5
2029	--	--	--	--	--	--	1.7
2030	--	--	--	--	--	--	0.3
Subtotal	68	--	--	--	--	--	367.1

Annual Funding							
2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	397	127.9	--	24.6	152.5	12.1	164.6
2016	592	181.9	--	54.4	236.3	4.7	241.0
2017	1812	520.5	--	65.9	586.4	1.1	587.5
2018	2251	680.8	--	39.7	720.5	86.9	807.4
2019	3569	1079.4	--	60.4	1139.8	122.4	1262.2
2020	2205	841.7	--	53.3	895.0	77.4	972.4
2021	1920	759.5	--	53.4	812.9	81.5	894.4
2022	1521	619.9	--	51.1	671.0	40.7	711.7
2023	1869	743.8	--	55.2	799.0	46.9	845.9
2024	1818	743.9	--	54.1	798.0	47.2	845.2
2025	1701	747.9	--	50.1	798.0	47.2	845.2
2026	1840	757.8	--	55.5	813.3	48.9	862.2
2027	1879	780.4	--	56.6	837.0	42.0	879.0
2028	1900	803.1	--	50.6	853.7	43.3	897.0
2029	1903	819.2	--	51.2	870.4	44.3	914.7
2030	1898	833.5	--	54.1	887.6	45.1	932.7
2031	1893	839.1	--	66.1	905.2	46.3	951.5
2032	1880	856.9	--	67.1	924.0	46.8	970.8
2033	1887	870.5	--	71.9	942.4	47.9	990.3
2034	1820	868.8	--	93.9	962.7	47.4	1010.1
2035	1861	908.6	--	72.5	981.1	49.3	1030.4
2036	1883	929.0	--	71.0	1000.0	50.8	1050.8
2037	1884	947.7	--	72.2	1019.9	51.9	1071.8
2038	1905	974.7	--	65.4	1040.1	53.4	1093.5
2039	1938	1001.0	--	58.7	1059.7	55.3	1115.0
2040	1967	1029.1	--	51.1	1080.2	57.1	1137.3
2041	1106	608.8	--	40.8	649.6	33.2	682.8
2042	--	--	--	39.4	39.4	--	39.4
2043	--	--	--	40.2	40.2	--	40.2
Subtotal	49099	20875.4	--	1640.5	22515.9	1331.1	23847.0

Annual Funding							
2035 Procurement Other Procurement, Army							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	397	124.2	--	23.9	148.1	11.7	159.8
2016	592	174.2	--	52.1	226.3	4.5	230.8
2017	1812	488.6	--	61.9	550.5	1.0	551.5
2018	2251	626.9	--	36.6	663.5	80.0	743.5
2019	3569	974.6	--	54.5	1029.1	110.5	1139.6
2020	2205	745.0	--	47.2	792.2	68.5	860.7
2021	1920	659.1	--	46.3	705.4	70.8	776.2
2022	1521	527.4	--	43.5	570.9	34.6	605.5
2023	1869	620.4	--	46.1	666.5	39.1	705.6
2024	1818	608.3	--	44.4	652.7	38.5	691.2
2025	1701	599.6	--	40.1	639.7	37.9	677.6
2026	1840	595.6	--	43.7	639.3	38.4	677.7
2027	1879	601.4	--	43.5	644.9	32.4	677.3
2028	1900	606.7	--	38.3	645.0	32.7	677.7
2029	1903	606.8	--	37.9	644.7	32.8	677.5
2030	1898	605.2	--	39.4	644.6	32.7	677.3
2031	1893	597.4	--	47.0	644.4	33.0	677.4
2032	1880	598.1	--	46.8	644.9	32.7	677.6
2033	1887	595.6	--	49.3	644.9	32.7	677.6
2034	1820	582.8	--	63.0	645.8	31.8	677.6
2035	1861	597.6	--	47.7	645.3	32.4	677.7
2036	1883	599.0	--	45.8	644.8	32.7	677.5
2037	1884	599.1	--	45.5	644.6	32.9	677.5
2038	1905	604.1	--	40.5	644.6	33.1	677.7
2039	1938	608.2	--	35.7	643.9	33.6	677.5
2040	1967	613.0	--	30.5	643.5	34.0	677.5
2041	1106	355.5	--	23.9	379.4	19.4	398.8
2042	--	--	--	22.6	22.6	--	22.6
2043	--	--	--	22.6	22.6	--	22.6
Subtotal	49099	15514.4	--	1220.3	16734.7	1014.4	17749.1

Annual Funding							
1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	6	2.2	--	4.2	6.4	1.0	7.4
2016	128	42.8	--	15.8	58.6	--	58.6
2017	212	70.4	--	32.6	103.0	1.2	104.2
2018	527	169.7	--	29.5	199.2	34.2	233.4
2019	1642	528.4	--	17.6	546.0	26.8	572.8
2020	1242	458.8	--	23.8	482.6	73.0	555.6
2021	752	301.0	--	27.4	328.4	53.3	381.7
2022	645	279.1	--	18.6	297.7	25.0	322.7
2023	589	256.3	--	23.6	279.9	20.8	300.7
2024	878	377.4	--	23.1	400.5	15.0	415.5
2025	916	389.1	--	18.6	407.7	16.6	424.3
2026	2020	846.8	--	20.4	867.2	21.6	888.8
2027	1946	779.6	--	20.9	800.5	56.1	856.6
2028	1937	887.9	--	18.9	906.8	32.8	939.6
2029	1950	909.6	--	19.4	929.0	45.2	974.2
2030	--	--	--	20.6	20.6	18.1	38.7
2031	--	--	--	--	--	2.0	2.0
2032	--	--	--	--	--	2.0	2.0
2033	--	--	--	--	--	2.1	2.1
2034	--	--	--	--	--	2.1	2.1
2035	--	--	--	--	--	2.2	2.2
2036	--	--	--	--	--	2.2	2.2
2037	--	--	--	--	--	2.3	2.3
2038	--	--	--	--	--	2.3	2.3
2039	--	--	--	--	--	2.3	2.3
2040	--	--	--	--	--	2.4	2.4
2041	--	--	--	--	--	2.4	2.4
2042	--	--	--	--	--	2.5	2.5
2043	--	--	--	--	--	2.5	2.5
2044	--	--	--	--	--	2.6	2.6
2045	--	--	--	--	--	2.6	2.6
2046	--	--	--	--	--	2.7	2.7
2047	--	--	--	--	--	2.8	2.8
2048	--	--	--	--	--	2.8	2.8
2049	--	--	--	--	--	2.9	2.9
Subtotal	15390	6299.1	--	335.0	6634.1	486.4	7120.5

Annual Funding							
1109 Procurement Procurement, Marine Corps							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2015	6	2.1	--	4.1	6.2	1.0	7.2
2016	128	41.0	--	15.2	56.2	--	56.2
2017	212	66.2	--	30.6	96.8	1.1	97.9
2018	527	156.4	--	27.3	183.7	31.5	215.2
2019	1642	477.7	--	15.9	493.6	24.2	517.8
2020	1242	406.6	--	21.1	427.7	64.7	492.4
2021	752	261.5	--	23.8	285.3	46.3	331.6
2022	645	237.7	--	15.8	253.5	21.4	274.9
2023	589	214.0	--	19.7	233.7	17.4	251.1
2024	878	309.0	--	18.9	327.9	12.3	340.2
2025	916	312.3	--	15.0	327.3	13.3	340.6
2026	2020	666.4	--	16.1	682.5	17.0	699.5
2027	1946	601.5	--	16.1	617.6	43.3	660.9
2028	1937	671.6	--	14.3	685.9	24.8	710.7
2029	1950	674.5	--	14.4	688.9	33.5	722.4
2030	--	--	--	14.9	14.9	13.2	28.1
2031	--	--	--	--	--	1.4	1.4
2032	--	--	--	--	--	1.4	1.4
2033	--	--	--	--	--	1.4	1.4
2034	--	--	--	--	--	1.4	1.4
2035	--	--	--	--	--	1.4	1.4
2036	--	--	--	--	--	1.4	1.4
2037	--	--	--	--	--	1.5	1.5
2038	--	--	--	--	--	1.4	1.4
2039	--	--	--	--	--	1.4	1.4
2040	--	--	--	--	--	1.4	1.4
2041	--	--	--	--	--	1.4	1.4
2042	--	--	--	--	--	1.4	1.4
2043	--	--	--	--	--	1.4	1.4
2044	--	--	--	--	--	1.4	1.4
2045	--	--	--	--	--	1.4	1.4
2046	--	--	--	--	--	1.4	1.4
2047	--	--	--	--	--	1.5	1.5
2048	--	--	--	--	--	1.4	1.4
2049	--	--	--	--	--	1.4	1.4
Subtotal	15390	5098.5	--	283.2	5381.7	391.8	5773.5

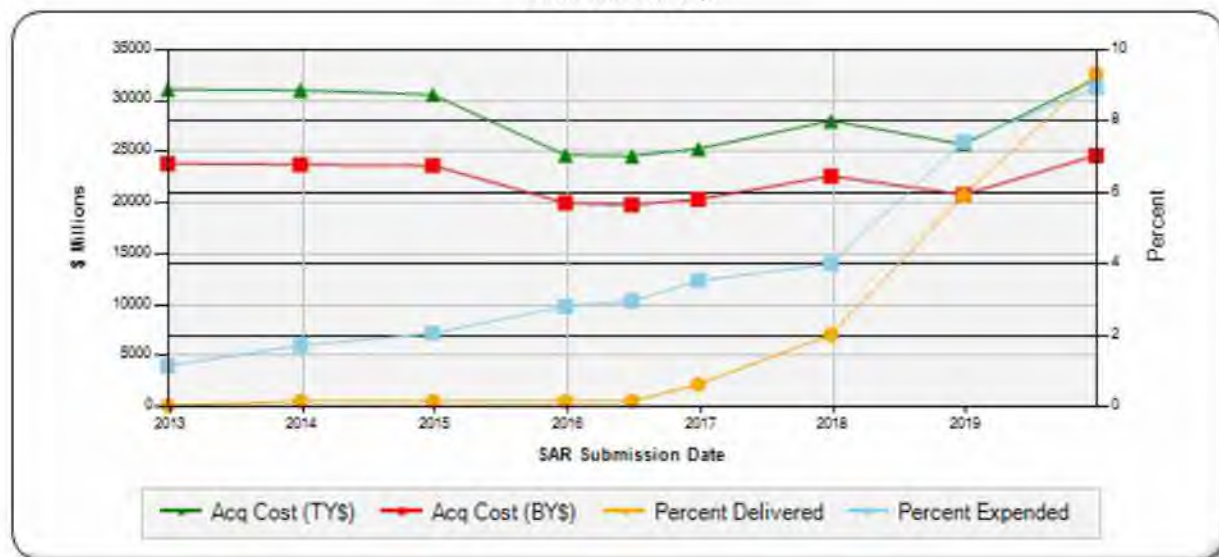
Annual Funding		
2020	Acq O&M	Operation and Maintenance, Army
Fiscal Year	TY \$M	
	Total Program	
2019	11.0	
2020	10.7	
2021	12.6	
2022	12.8	
2023	13.1	
2024	13.2	
2025	13.4	
2026	11.1	
2027	11.1	
2028	11.2	
2029	11.4	
2030	10.6	
2031	10.8	
2032	9.9	
2033	9.0	
2034	9.1	
2035	9.3	
2036	8.3	
2037	7.3	
2038	7.4	
2039	7.6	
2040	5.1	
2041	5.2	
2042	2.7	
2043	2.7	
Subtotal		236.6

Annual Funding		
2020 Acq O&M Operation and Maintenance, Army		
Fiscal Year	BY 2015 \$M	
	Total Program	
2019		10.1
2020		9.6
2021		11.1
2022		11.1
2023		11.1
2024		11.0
2025		10.9
2026		8.9
2027		8.7
2028		8.6
2029		8.6
2030		7.8
2031		7.8
2032		7.0
2033		6.3
2034		6.2
2035		6.2
2036		5.4
2037		4.7
2038		4.7
2039		4.7
2040		3.1
2041		3.1
2042		1.6
2043		1.5
Subtotal		179.8

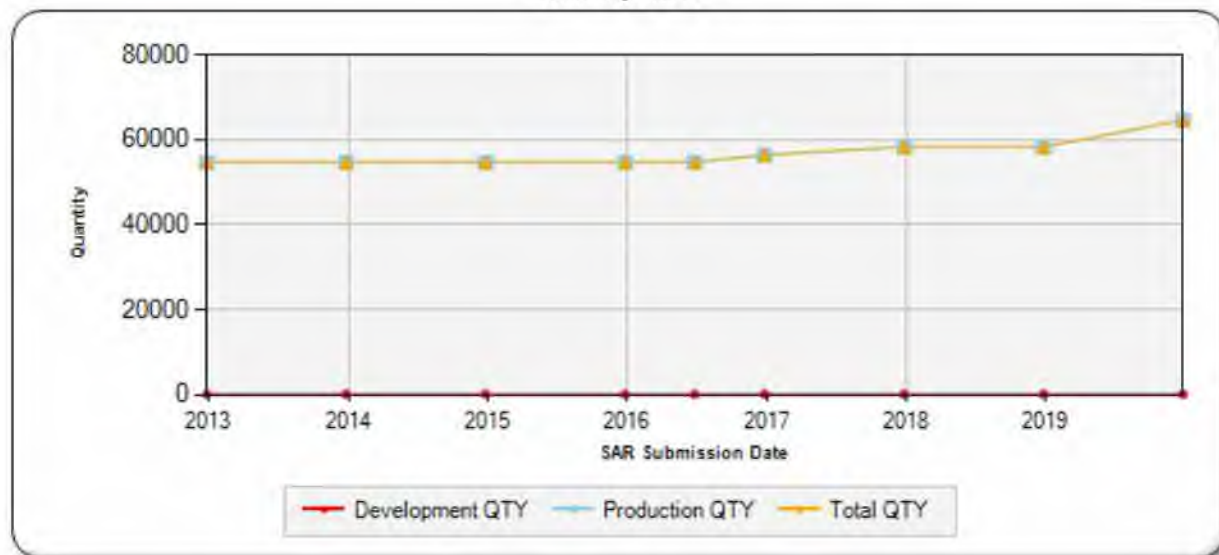
Charts

JLTV first began SAR reporting in December 2012

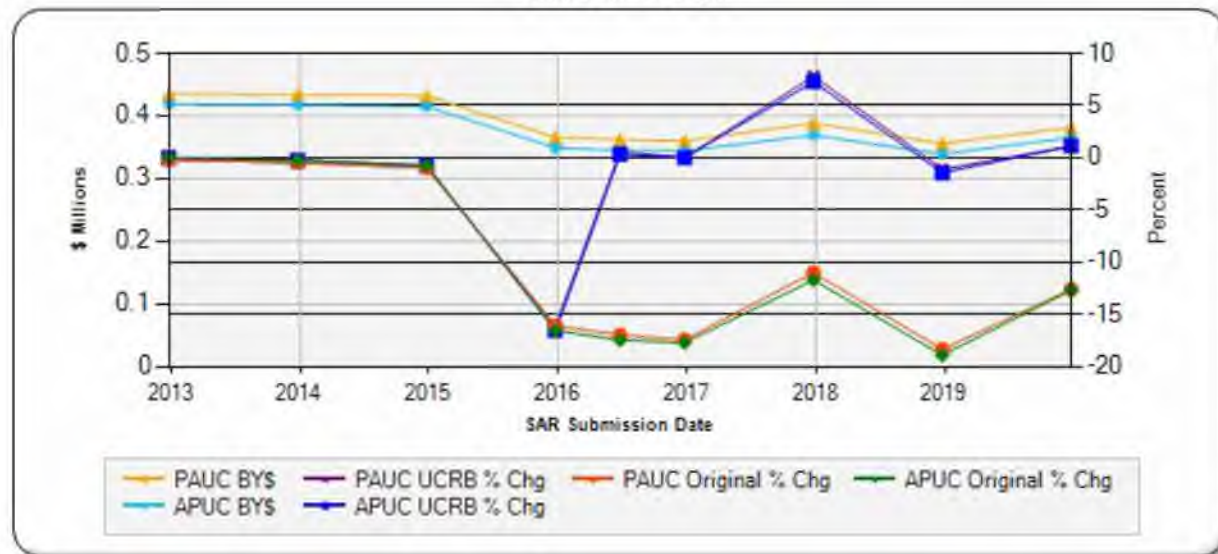
Program Acquisition Cost - JLTV
Base Year 2015 \$M



Quantity - JLTV



Unit Cost - JLTV
Base Year 2015 \$M



Risks

Significant Schedule and Technical Risks

Significant Schedule and Technical Risks	
Milestone B (August 2012)	
1.	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.
2.	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.
3.	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.
Milestone C (August 2015)	
1.	If the Cab / Armor design cannot defeat KPP Kinetic Energy and Underbody threats, then JLTV will not receive Full Material Release (FMR) and may not receive a FRP decision.
2.	If the system design cannot meet the Rating Cone Index and Sand Slope requirements, then JLTV will not receive FMR and may not receive FRP decision.
3.	If the system design cannot be certified for transportability, then JLTV will not receive FMR and may not receive FRP decision.
Current Estimate (December 2019)	
1.	If effective competition is not received in response to the Request For Proposal for follow-on production contracts then program may experience cost growth as a result of increasing unit prices.
2.	If new requirements continue to be generated post Full Rate Production, 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 PAUC and APUC.
3.	If the JLTV Technical Data Package is not successfully validated prior to the scheduled Request For Proposal release for the follow-on production then the program's fielding schedule will be delayed since the Government is unable to procure additional vehicles.
4.	If fielded under a Conditional Material Release (CMR) and conditions of the CMR are not resolved within the established timelines then the program will be unable to continue fielding without a valid material release.

Risks

Risk and Sensitivity Analysis

Risks and Sensitivity Analysis	
Current Baseline Estimate (November 2019)	
1.	<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>
Original Baseline Estimate (October 2012)	
1.	<p>The JLTV JCP, approved on July 12, 2012 by Assistant Secretary of the Army for Financial Management & 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>
Revised Original Estimate (N/A)	
1.	Not Applicable
Current Procurement Cost (December 2019)	
1.	<p>The JLTV Current Estimate is based upon the approved 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</p>

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. 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 2041. 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.

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	8/20/2012	11/20/2018
Approved Quantity	3100	11087
Reference	Milestone B ADM	ADM for LRIP Quantity Increase
Start Year	2015	2015
End Year	2017	2019

The Current Total LRIP Quantity is more than 10% of the total production quantity of 64,489. 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.

Foreign Military Sales

Notes

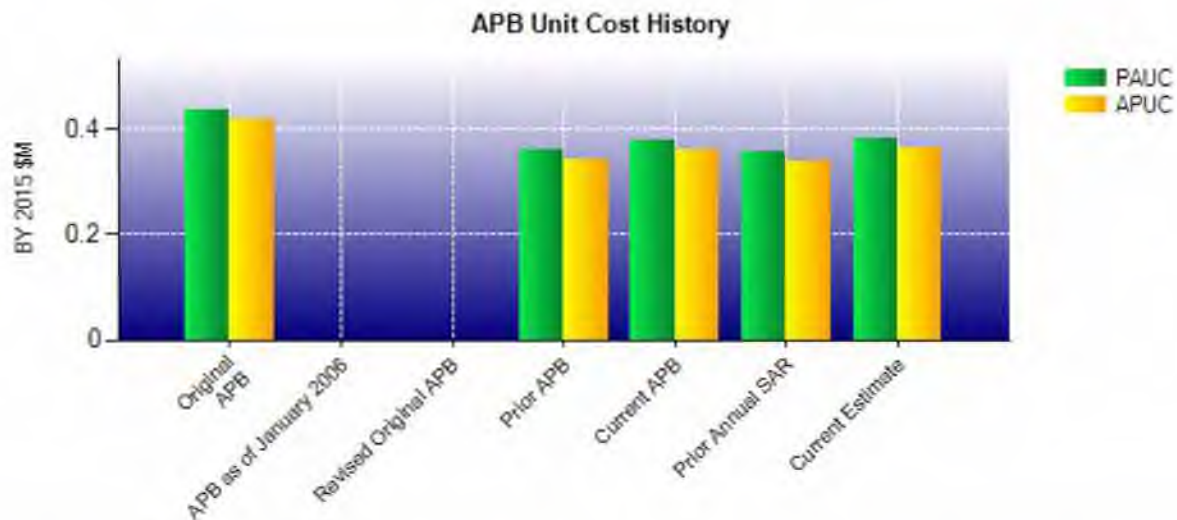
* In accordance with Section 830 of the FY 2020 National Defense Authorization Act, ~~For Official Use Only~~ data in this SAR section has been eliminated. This data is available upon Congressional request to the Office of the Under Secretary of Defense for Acquisition and Sustainment.

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2015 \$M	BY 2015 \$M	% Change
	Current UCR Baseline (Nov 2019 APB)	Current Estimate (Dec 2019 SAR)	
Program Acquisition Unit Cost			
Cost	24343.5	24625.7	
Quantity	64621	64621	
Unit Cost	0.377	0.381	+1.06
Average Procurement Unit Cost			
Cost	23267.8	23522.6	
Quantity	64489	64489	
Unit Cost	0.361	0.365	+1.11
Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2015 \$M	BY 2015 \$M	% Change
	Original UCR Baseline (Oct 2012 APB)	Current Estimate (Dec 2019 SAR)	
Program Acquisition Unit Cost			
Cost	23868.6	24625.7	
Quantity	54730	64621	
Unit Cost	0.436	0.381	-12.61
Average Procurement Unit Cost			
Cost	22822.7	23522.6	
Quantity	54599	64489	
Unit Cost	0.418	0.365	-12.68



APB Unit Cost History					
Item	Date	BY 2015 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	Oct 2012	0.436	0.418	0.556	0.538
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	Apr 2016	0.360	0.344	0.449	0.432
Current APB	Nov 2019	0.377	0.361	0.469	0.452
Prior Annual SAR	Dec 2018	0.356	0.339	0.441	0.423
Current Estimate	Dec 2019	0.381	0.365	0.497	0.480

SAR Unit Cost History

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.556	0.004	0.107	-0.027	0.000	-0.188	0.000	-0.003	-0.107	0.449

Current SAR Baseline to Current Estimate (TY \$M)									
PAUC Production Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.449	-0.001	-0.011	0.052	0.000	-0.002	0.000	0.010	0.048	0.497

Initial SAR Baseline to Current SAR Baseline (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Production Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.538	0.004	0.000	-0.027	0.000	-0.080	0.000	-0.003	-0.106	0.432

Current SAR Baseline to Current Estimate (TY \$M)									
APUC Production Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.432	-0.001	-0.008	0.052	0.000	-0.005	0.000	0.010	0.048	0.480

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	Aug 2012	Aug 2012	Aug 2012
Milestone C	N/A	May 2015	Aug 2015	Aug 2015
IOC	N/A	May 2018	Dec 2019	May 2020
Total Cost (TY \$M)	N/A	30408.7	24544.0	32132.3
Total Quantity	N/A	54730	54717	64621
PAUC	N/A	0.556	0.449	0.497

Cost Variance

Summary TY \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	940.0	23604.0	--	--	24544.0
Previous Changes					
Economic	+0.1	-29.1	--	+1.8	-27.2
Quantity	+7.1	+1278.2	--	--	+1285.3
Schedule	+29.8	+2174.8	--	--	+2204.6
Engineering	--	--	--	--	--
Estimating	-93.6	-2537.3	--	+202.9	-2428.0
Other	--	--	--	--	--
Support	--	+132.3	--	--	+132.3
Subtotal	-56.6	+1018.9	--	+204.7	+1167.0
Current Changes					
Economic	-0.1	-24.8	--	--	-24.9
Quantity	--	+2490.7	--	--	+2490.7
Schedule	+40.5	+1147.3	--	--	+1187.8
Engineering	--	--	--	--	--
Estimating	+4.4	+2245.6	--	+31.9	+2281.9
Other	--	--	--	--	--
Support	--	+485.8	--	--	+485.8
Subtotal	+44.8	+6344.6	--	+31.9	+6421.3
Total Changes	-11.8	+7363.5	--	+236.6	+7588.3
Current Estimate	928.2	30967.5	--	236.6	32132.3

Summary BY 2015 \$M					
Item	RDT&E	Procurement	MILCON	Acq O&M	Total
SAR Baseline (Production Estimate)	941.4	18758.1	--	--	19699.5
Previous Changes					
Economic	--	--	--	--	--
Quantity	+6.7	+1073.1	--	--	+1079.8
Schedule	+28.0	+1733.0	--	--	+1761.0
Engineering	--	--	--	--	--
Estimating	-83.7	-1894.3	--	+159.6	-1818.4
Other	--	--	--	--	--
Support	--	+69.3	--	--	+69.3
Subtotal	-49.0	+981.1	--	+159.6	+1091.7
Current Changes					
Economic	--	--	--	--	--
Quantity	--	+1889.1	--	--	+1889.1
Schedule	+27.1	+5.5	--	--	+32.6
Engineering	--	--	--	--	--
Estimating	+3.8	+1562.5	--	+20.2	+1586.5
Other	--	--	--	--	--
Support	--	+326.3	--	--	+326.3
Subtotal	+30.9	+3783.4	--	+20.2	+3834.5
Total Changes	-18.1	+4764.5	--	+179.8	+4926.2
Current Estimate	923.3	23522.6	--	179.8	24625.7

Previous Estimate: December 2018

RDT&E	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-0.1
Schedule variance due to Evaluation & Assessment of current & future engineering efforts based on extending the procurement schedule from FY 2034 to FY 2041 (Army). (Schedule)	+18.3	+30.1
Schedule variance due to Evaluation & Assessment of current & future engineering efforts based on extending the procurement schedule from FY 2026 to FY 2029 (Navy). (Schedule)	+8.8	+10.4
Additional funding for the development of Training Aids, Devices, Simulators, and Simulations (TADSS) (Army). (Estimating)	+3.9	+4.5
Adjustment for current and prior escalation. (Estimating)	-0.1	-0.1
RDT&E Subtotal	+30.9	+44.8

Procurement	\$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-24.8
Total Quantity variance resulting from an increase of 6,299 JLTV's from 9,091 to 15,390 (Navy). (Subtotal)	+1878.0	+2475.9
Quantity variance resulting from an increase of 6,299 JLTV's from 9,091 to 15,390 (Navy). (Quantity)	(+1889.1)	(+2490.7)
Allocation to Schedule resulting from Quantity change. (Schedule) (QR)	(+5.5)	(+7.3)
Allocation to Estimating resulting from Quantity change. (Estimating) (QR)	(-16.6)	(-22.1)
Stretch-out of procurement buy profile from ending in FY 2034 to FY 2041 (Army). (Schedule)	0.0	+1102.6
Stretch-out of procurement buy profile from ending in FY 2026 to FY 2029 (Navy). (Schedule)	0.0	+37.4
Adjustment for current and prior escalation. (Estimating)	+4.4	+4.8
Revised estimate for manufacturing based on the addition of trailers (from zero to 18,224) and the inclusion of the approved Army Futures Command (AFC) solutions for situational awareness and noise reduction (Army). (Estimating) (QR)	+962.8	+1352.3
Revised estimate for manufacturing based on the additional kit requirement to account for the increase in vehicles and the inclusion of the approved AFC solutions for situational awareness, noise reduction and troop seats (Navy). (Estimating) (QR)	+305.0	+398.2
Increase in government program support, contractor support and system technical support resulting from the stretch-out of the procurement buy profile (Army). (Estimating)	+239.5	+411.8
Increase in government program support, contractor support and system technical support resulting from the stretch-out of the procurement buy profile (Navy). (Estimating)	+45.4	+60.6
Revised estimate for test due to updated Test plan (Army). (Estimating)	+33.7	+53.4
Revised estimate for test due to updated Test plan (Navy). (Estimating)	-11.7	-13.4
Increase in Other Support due to updates for training (TADSS) and support equipment (Army). (Support)	+15.1	+58.5
Increase in Other Support due to updates for support equipment, total packaged fielding	+154.6	+205.5

and transportation (Navy). (Support) (QR)		
Increase in Initial Spares due to updated estimating methodology and extending the procurement buy profile (Army). (Support)	+150.8	+214.0
Increase in Initial Spares due to updated estimating methodology and extending the procurement buy profile (Navy). (Support)	+5.5	+7.4
Adjustment for current and prior escalation. (Support)	+0.3	+0.4
Procurement Subtotal	+3783.4	+6344.6

(QR) Quantity Related

Acq O&M	\$M	
Current Change Explanations	Base Year	Then Year
Revised estimate of direct civilian pay costs resulting from the stretch-out of the procurement buy profile (Army). (Estimating)	+20.2	+31.9
Acq O&M Subtotal	+20.2	+31.9

Contracts

Contract Identification

Appropriation: Procurement
Contract Name: LRIP & FRP contract
Contractor: Oshkosh Defense LLC
Contractor Location: 2307 Oregon St
 Oshkosh, WI 54902
Contract Number: W56HZV-15-C-0095
Contract Type: Firm Fixed Price (FFP), Cost Plus Fixed Fee (CPFF)
Award Date: August 25, 2015
Definitization Date: December 15, 2015

Contract Price								
Initial Contract Price (\$M)			Current Contract Price (\$M)			Estimated Price At Completion (\$M)		
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager	
114.7	N/A	201	4551.9	N/A	13816	4551.9	4551.9	

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to exercising Option Periods 1 through 3 which includes buying 13,615 additional vehicles plus associated kits, trailers, test support, System Engineering and Program Management, System Technical Support (STS), and the JLTV Technical Data Package.

The Current Contract Price Target also includes Air Force Procurement funds for the purchase of 336 vehicles, Navy Procurement funds for the purchase of 37 vehicles, and FMS funds for STS, vehicles and associated kits.

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP/CPFF) contract.

General Contract Variance Explanation

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.

Notes

This contract is comprised of a basic performance period plus eight option periods.

Current Contract	Qty
Army	10,779
USMC	2,604
Air Force	336
Army Reserve	60
Navy	37
Grand Total	13,816

Total quantity includes RDT&E and Procurement funded vehicles. FMS vehicles are not included.

Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	126	122	132	92.42%
Production	6053	5913	64489	9.17%
Total Program Quantity Delivered	6179	6035	64621	9.34%

Expended and Appropriated (TY \$M)

Total Acquisition Cost	32132.3	Years Appropriated	13
Expended to Date	2867.9	Percent Years Appropriated	30.95%
Percent Expended	8.93%	Appropriated to Date	6420.7
Total Funding Years	42	Percent Appropriated	19.98%

The above data is current as of February 10, 2020.

Notes

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

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	December 31, 2019
Source of Estimate:	POE
Quantity to Sustain:	64489
Unit of Measure:	Vehicle
Service Life per Unit:	20.00 Years
Fiscal Years in Service:	FY 2019 - FY 2062

The total JLTV vehicle quantity of 64,621 includes 132 RDT&E-funded vehicles and 64,489 Procurement-funded vehicles. 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) / 15,390 (U.S. Marine Corps (USMC))

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.

Annual O&S Costs BY2015 \$K		
Cost Element	JLTV Average Annual Cost Per Vehicle	HMMWV (Antecedent) Average Annual \$ Per Vehicle
Unit-Level Manpower	7.516	8.000
Unit Operations	2.262	1.700
Maintenance	9.869	4.500
Sustaining Support	1.511	5.500
Continuing System Improvements	1.365	0.600
Indirect Support	0.912	3.000
Other	0.000	0.000
Total	23.435	23.300

The JLTV O&S costs reflect peacetime operations.

Item	Total O&S Cost \$M			
	JLTV			HMMWV (Antecedent)
	Current Production APB Objective/Threshold	Current Estimate		
Base Year	30271.3	33298.4	30226.2	57839.0
Then Year	46828.6	N/A	50309.4	N/A

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: \$30,226.2M (BY\$ 2015)

Total Operational Vehicle Years: 1,289,780

Total Operating Vehicles: 64,489

Economic Useful Life: 20 Years

O&S Cost Variance		
Category	BY 2015 \$M	Change Explanations
Prior SAR Total O&S Estimates - Dec 2018 SAR	24883.0	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	2158.2	Updated methodology for field maintenance civilian labor, system specific base operations, consumables & reparable to account for the increase in vehicle quantities and the additional years of the procurement

		schedule.
Cost Data Update	432.6	Reflects updated vehicle manufacturing costs as input to modifications & overhaul. Updated cost data for transportation & training costs.
Labor Rate	2337.9	Updated AMCOS Military Pay rates and extended operating schedule due to the increase in vehicle quantities and the additional years of procurement.
Energy Rate	414.5	Updated cost of fuel and extended operating schedule due to the additional years of procurement..
Technical Input	0.0	
Other	0.0	
Total Changes	5343.2	
Current Estimate	30226.2	

Disposal Estimate Details

Date of Estimate:	December 31, 2019
Source of Estimate:	POE
Disposal/Demilitarization Total Cost (BY 2015 \$M):	224.0

Total Demilitarization Cost includes costs for disposal and transportation associated with disposal of JLTVs. The reduction in disposal costs is due to cost estimating updates.