

# UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605812A I Joint Light Tactical Vehicle - ED							
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
Total Program Element	-	11.086	23.467	2.686	-	2.686	2.732	1.744	2.789	4.799	Continuing	Continuing
VU9: Joint Light Tactical Vehicle - ED	-	11.086	23.467	2.686	-	2.686	2.732	1.744	2.789	4.799	Continuing	Continuing

## Note

FY 2012 funding for the Joint Light Tactical Vehicles (JLTV) program is under Program Element (PE) 0604804A, Project L50.  
FY 2013 and out year funding is under Project Element (PE) 0605812A, Project VU9.

## A. Mission Description and Budget Item Justification

Funding supports the development and testing of the JLTV Family of Vehicles (FoV). JLTV is a joint program between the U.S. Army and the U.S. Marine Corps, of which the U.S. Army is the lead service. The JLTV goal is a FoV capable of performing multiple mission roles designed to provide protected, sustained, and networked mobility for personnel and payloads across the full Range of Military Operations (ROMO). JLTV objectives include increased performance, protection, and payload over the current legacy HMMWV fleet, minimizing ownership costs by maximizing commonality, fuel efficiency and reliability. The commonality of components, maintenance procedures, training, etc., among vehicles is expected to be inherent in FoV solutions across mission variants to minimize total ownership cost. Unique service requirements have been minimized.

Major FY19 budget activities include test asset disposal, PM support, and Science and Technology funding to explore and develop integration solutions for Government Furnished Equipment (GFE) on the JLTV platform, along with operational efficiency solutions.

<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019 Base</b>	<b>FY 2019 OCO</b>	<b>FY 2019 Total</b>
Previous President's Budget	11.530	23.467	3.056	-	3.056
Current President's Budget	11.086	23.467	2.686	-	2.686
Total Adjustments	-0.444	0.000	-0.370	-	-0.370
• Congressional General Reductions	-0.006	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.438	-			
• Adjustments to Budget Years	-	-	-0.370	-	-0.370

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PE 0605812A: *Joint Light Tactical Vehicle - ED*  
Army

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Army										Date: February 2018		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605812A / Joint Light Tactical Vehicle - ED				Project (Number/Name) VU9 / Joint Light Tactical Vehicle - ED			
COST (\$ in Millions)	Prior Years	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost
VU9: Joint Light Tactical Vehicle - ED	-	11.086	23.467	2.686	-	2.686	2.732	1.744	2.789	4.799	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
FY 2012 funding for the Joint Light Tactical Vehicles (JLTV) program is under Program Element (PE) 0604804A, Project L50. FY 2013 and out year funding is under Project Element (PE) 0605812A, Project VU9.												
A. Mission Description and Budget Item Justification												
Funding supports the development and testing of the JLTV Family of Vehicles (FoV). JLTV is a joint program between the U.S. Army and the U.S. Marine Corps, of which the U.S. Army is the lead service. The JLTV goal is a FoV capable of performing multiple mission roles designed to provide protected, sustained, and networked mobility for personnel and payloads across the full Range of Military Operations (ROMO). JLTV objectives include increased performance, protection, and payload over the current legacy HMMWV fleet, minimizing ownership costs by maximizing commonality, fuel efficiency and reliability. The commonality of components, maintenance procedures, training, etc., among vehicles is expected to be inherent in FoV solutions across mission variants to minimize total ownership cost. Unique service requirements have been minimized.												
Major FY19 budget activities include test asset disposal, PM support, and Science and Technology funding to explore and develop integration solutions for Government Furnished Equipment (GFE) on the JLTV platform, along with operational efficiency solutions.												
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B. Accomplishments/Planned Programs (\$ in Millions)									FY 2017	FY 2018	FY 2019	
Title: Contract and support for development, fabrication, and test of live fire test assets.									-	4.109	-	
Description: Funding is provided for the contract award for live fire test assets.												
FY 2018 Plans:												
Funding is provided for completion of LRIP Contractor Test Support Contract Award.												
FY 2018 to FY 2019 Increase/Decrease Statement:												
Decrease in FY18 to FY19 is the result of completion of LRIP Contract Award.												
Title: Joint Light Tactical Vehicles (JLTV) program management support									3.938	1.432	0.250	
Description: Funding is provided for the support of program management government operations.												

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605812A / Joint Light Tactical Vehicle - ED	Project (Number/Name) VU9 / Joint Light Tactical Vehicle - ED		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2017	FY 2018	FY 2019
FY 2018 Plans: Continue support for LRIP phase to include monitoring of vendor performance and program management.				
FY 2019 Plans: Continuation of support for program management for Science and Technology events.				
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in program management support between FY2018 and FY2019 resulted from the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan.				
Title: Test and Evaluation Events and Analysis. Description: Test and Evaluation Events		7.148	12.249	0.093
FY 2018 Plans: Completion of logistics provisioning and publications. Completion of the Low-Rate Initial Production (LRIP) test program required events such as: Full Up System Level (FUSL) test, Multi-Service Operational Test and Evaluation (MOT&E), Automatic Fire Extinguishing System (AFES) test, and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) test.				
FY 2019 Plans: Disposal of test vehicles/assets from the FUSL, AFES, and Corrosion testing.				
FY 2018 to FY 2019 Increase/Decrease Statement: Decrease in test and evaluation events between FY18 and FY19 resulted from the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan.				
Title: Science and Technology Updates. Description: Funding is provided for the support of JLTV science and technology updates.		-	5.677	2.343
FY 2018 Plans: Science and Technology funds will be used to explore Acoustic and Thermal signature mitigation technology along with research into potential fuel economy savings.				
FY 2019 Plans: Science and Technology funds will be used to explore and develop integration solutions for Government Furnished Equipment (GFE) on the JLTV platform, along with operational efficiency solutions.				
FY 2018 to FY 2019 Increase/Decrease Statement:				

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Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0605812A / Joint Light Tactical Vehicle - ED				Project (Number/Name) VU9 / Joint Light Tactical Vehicle - ED				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2017	FY 2018	FY 2019
Decrease of Science and Technology is due to leaving the Low Rate Initial Production (LRIP) Phase and entering in the Full Rate Production (FRP) Phase.												
Accomplishments/Planned Programs Subtotals										11.086	23.467	2.686
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total	FY 2020	FY 2021	FY 2022	FY 2023	Cost To Complete	Total Cost	
• D15603: JOINT LIGHT TACTICAL VEHICLE	587.514	804.440	1,319.436	-	1,319.436	1,147.246	1,242.725	1,346.783	1,211.192	0.000	7,659.336	
Remarks												
JLTV is a Joint Program with the United States Marine Corps (USMC)												
Marine Corps Ground Combat/Support Systems, Production 5095 - FY17: 104,230 FY18: 233,639 FY19: 607,011 FY20: 707,778 FY21: 475,381 FY22: 439,744 FY23: 421,609												
Marine Corps Ground Combat/Support Systems, RDTE Project 3209 0605813M- FY17: 0 FY18: 20,710 FY19: 2,260 FY20: 2,122 FY21: 26 FY22: 24 FY23: 22												
Marine Corps Ground Combat Support Systems, RDTE Project 3209 0605812M- FY17: 7,657												
D. Acquisition Strategy												
Joint Light Tactical Vehicle (JLTV) is a Joint Service Program with the U.S. Army and U.S. Marine Corps as the two main components. The U.S. Army is the JLTV service lead.												
The JLTV Program entered the Production and Deployment Phase with the Acquisition Decision Memorandum authorization on 25 August 2015. With Milestone C approval, the LRIP fixed price contract was awarded to Oshkosh Defense LLC on 25 August 2015. This contract consists of a three year LRIP period with options for five additional years of FRP deliveries. JPO JLTV requested separately priced firm fixed price (FFP) option(s) for purchase of the Technical Data Package (TDP) with appropriate data rights to allow for possible future competition for production vehicles and spares.												
During the LRIP phase, JPO JLTV will continue to produce production vehicles for extensive Test and Evaluation activities to support a Full Rate Production (FRP) decision. A ramp up of JLTV quantities will continue thru FY19 to support fielding to U.S. Army and USMC units once the FRP decision is achieved and allow the program to transition into FRP.												
The JLTV program will continually monitor emerging technologies and capabilities through its partnerships with U.S. Army and Marine Corps science and technology organizations as well as through industry market research and partnerships. At this time follow-on increments for technology insertion are undefined; the JLTV program will look for opportunities to implement increased capabilities throughout the systems Life Cycle.												

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E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Army												Date: February 2018			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0605812A / Joint Light Tactical Vehicle - ED				Project (Number/Name) VU9 / Joint Light Tactical Vehicle - ED					
Management Services (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Light Tactical Vehicles (JLTV)Contract Service Support	SS/CPFF	Booz-Allen Hamilton, : McLean, VA	10.191	-		-		-		-		-	0.000	10.191	-
JLTV Contract Service Support for Cost Analysis for JLTV CARD	SS/CPFF	Camber Corporation, : Huntsville, AL	0.591	-		-		-		-		-	0.000	0.591	-
JLTV Service Support	MIPR	US Army Combined Arms Support Commands - CASCOM, : Ft. Lee, VA	0.200	-		-		-		-		-	0.000	0.200	-
Subtotal			10.982	-		-		-		-		-	0.000	10.982	N/A
Remarks Funding for Management Services has shifted from RDT&E to procurement.															
Product Development (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
JLTV Live Fire Test Support	C/FFP	Oshkosh Corporation : Oshkosh, WI	19.091	-		2.609		-		-		-	Continuing	Continuing	Continuing
Science and Technology Updates	C/TBD	To Be Determined : To Be Determined	-	-		5.677		2.343	Jul 2019	-		2.343	0.000	8.020	-
Subtotal			19.091	-		8.286		2.343		-		2.343	Continuing	Continuing	N/A
Remarks Joint Light Tactical Vehicles (JLTV) is a Joint Services Program with the U.S. Army and U.S. Marine Corps as the two main components. U.S. Army under PE 0605812A, Project VU9, and the U.S. Marine Corps under PE 0605812M, Project 3209. The LRIP/FRP contract awarded in FY15 has a cost sharing agreement between the services to cover shared RDT&E funded test activities. Funding for Live Fire Test Assets decreases as Live Fire Testing is completed and the program moves toward a Full Rate Program (FRP) decision.															

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Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0605812A / Joint Light Tactical Vehicle - ED				Project (Number/Name) VU9 / Joint Light Tactical Vehicle - ED					
Support (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Light Tactical Vehicles (JLTV) Program Management Support	Various	TACOM Life Cycle Management Command (LCMC), : Harrison Township, MI	27.632	3.938	Oct 2016	1.432		0.250	Oct 2018	-		0.250	Continuing	Continuing	Continuing
GFE Management / GFE / Integration	MIPR	Various : TBD	18.504	-		1.500		-		-		-	Continuing	Continuing	Continuing
JLTV EMD/LRIP phase.	MIPR	Tank-Automotive Reseach, Development, and Engineering Center - TARDEC : Warren, MI	14.245	-		-		-		-		-	Continuing	Continuing	Continuing
JLTV Prototype EMD/LRIP - Budget	MIPR	TACOM Life Cycle Management Command (LCMC), : Warren, MI	12.383	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			72.764	3.938		2.932		0.250		-		0.250	Continuing	Continuing	N/A
Remarks															
Funding for Support Costs decreases due to the end of the development phase as well as programmatic support shifting from RDT&E to procurement.															
Test and Evaluation (\$ in Millions)				FY 2017		FY 2018		FY 2019 Base		FY 2019 OCO		FY 2019 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Complete Engineering and Manufacturing Development (EMD) Test - Limited User Test (LUT)	MIPR	Army Evaluation Center (AEC) : Aberdeen Proving Ground, MD	41.342	-		-		-		-		-	0.000	41.342	-
Development Testing, MOT&E and Live Fire T&E - ballistics, FUSL, AFES, Log demo and corrosion.	Various	TBD : Various	27.750	7.148	Dec 2017	12.249		0.093	Jun 2019	-		0.093	23.708	70.948	-



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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2019 Army												<b>Date:</b> February 2018		
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<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
<b>Subtotal</b>			69.092	7.148		12.249		0.093		-		0.093		23.708	112.290	N/A

**Remarks**  
Funding for Government Test Support increases from FY17 to FY18 to support the Operational Test and Evaluation Event scheduled for the second quarter of FY18.

  

	Prior Years	<b>FY 2017</b>		<b>FY 2018</b>		<b>FY 2019 Base</b>		<b>FY 2019 OCO</b>		<b>FY 2019 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>	171.929	11.086		23.467		2.686		-		2.686	Continuing	Continuing	N/A

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2019 Army</b>			<b>Date:</b> February 2018		
<b>Appropriation/Budget Activity</b> 2040 / 5		<b>R-1 Program Element (Number/Name)</b> PE 0605812A / Joint Light Tactical Vehicle - ED		<b>Project (Number/Name)</b> VU9 / Joint Light Tactical Vehicle - ED	

Event Name	FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Test Vehicles and LRIP Contract																												
Full Up Systems Level (FUSL) Test																												
Logistics Demonstration																												
Multi-Service Operational Test and Evaluation (MOT&E)																												
Full-Rate Production (FRP) Decision																												
Army Initial Operating Capability (IOC)																												
Army First Unit Equipped (FUE)																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2019 Army			<b>Date:</b> February 2018
<b>Appropriation/Budget Activity</b> 2040 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605812A / <i>Joint Light Tactical Vehicle - ED</i>	<b>Project (Number/Name)</b> VU9 / <i>Joint Light Tactical Vehicle - ED</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Test Vehicles and LRIP Contract	4	2015	1	2019
Full Up Systems Level (FUSL) Test	2	2017	1	2018
Logistics Demonstration	3	2017	4	2017
Multi-Service Operational Test and Evaluation (MOT&E)	2	2018	3	2018
Full-Rate Production (FRP) Decision	1	2019	1	2019
Army Initial Operating Capability (IOC)	1	2020	1	2020
Army First Unit Equipped (FUE)	2	2019	2	2019