Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

PE 0605813M I (U)Joint Light Tactical Veh (JTLV) Sys Dev & Dem

Development & Demonstration (SDD)

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	0.000	0.000	20.710	2.260	-	2.260	2.122	0.026	0.024	0.022	Continuing	Continuing
3209: Joint Light Tactical Vehicle	0.000	0.000	20.710	2.260	-	2.260	2.122	0.026	0.024	0.022	Continuing	Continuing

Program MDAP/MAIS Code:

Project MDAP/MAIS Code(s): 279

Note

The FY 2011 NDAA directed the Services to separate the Joint Light Tactical Vehicle (JLTV) program into distinct PEs to provide Congress with increased transparency and allow for more effective oversight. Transition of funding from PE 0603635M to PE 0605812M was effective beginning in FY 2013.

Beginning in FY18, program funding transitioned from Budget Activity 4, Program Element 0605812M Joint Light Tactical Vehicle (JLTV) EMD to account for program progression through the acquisition process.

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. JLTV 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 the continuation of systems integration activity at the Government Systems Integration Laboratory and program management support to evaluate future integration and C4I requirements.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2019 Navy

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)

PE 0605813M I (U)Joint Light Tactical Veh (JTLV) Sys Dev & Dem

Date: February 2018

B. Program Change Summary (\$ in Millions)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Previous President's Budget	0.000	20.710	2.280	-	2.280
Current President's Budget	0.000	20.710	2.260	-	2.260
Total Adjustments	0.000	0.000	-0.020	-	-0.020
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
Congressional Adds	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-	_			
 Rate/Misc Adjustments 	0.000	0.000	-0.020	-	-0.020

Change Summary Explanation

NOTE: The funding decrease from FY2018 to FY2019 of \$18.450M is due to the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan (TEMP) and test support requirements in accordance with the JLTV production contract.

Exhibit R-2A, RDT&E Project Ju	stification	: PB 2019 N	Navy							Date: Febi	ruary 2018	
Appropriation/Budget Activity 1319 / 5					PE 060581	am Elemen I3M / (U)Joi s Dev & Der	nt Light Tac	•	Project (N 3209 / Joir		ne) ical Vehicle	
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
3209: Joint Light Tactical Vehicle	0.000	0.000	20.710	2.260	-	2.260	2.122	0.026	0.024	0.022	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
B : (MBAB/MAIO O I 070												

Project MDAP/MAIS Code: 279

Note

Beginning in FY18, program funding transitioned from Budget Activity 4 Program Element 0605812M Joint Light Tactical Vehicle (JLTV) EMD to account for advancement through the acquisition process.

The funding decrease from FY2018 to FY2019 of \$18.450 is due to the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan (TEMP) and test support requirements in accordance with the JLTV production contract.

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. JLTV 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 the continuation of systems integration activity at the Government Systems Integration Laboratory and program management support to evaluate future integration and C4I requirements.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
Title: Live Fire Test Support	0.000	5.296	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2018 Plans: -Complete planned test events to include FUSL, MOT&E, Logistics Demonstration, AFES, C4I, and corrosionComplete vendor RDT&E activity on the LRIP contractComplete logistics support of GFE required for LF Test events. FY 2019 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy				Date: Febr	uary 2018	
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/ PE 0605813M / (U)Joint Light Tac (JTLV) Sys Dev & Dem			umber/Nan t Light Tact		
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each)	FY 2017	FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
N/A						
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: -The decrease between FY2018 and FY2019 of \$5.296M is a result of requirements in accordance with the JLTV production contract.	of the conclusion of test support					
Title: GFE, ILS, Facilities Documentation/Analysis and Support Engi	neering Articles:	0.000	1.500	1.785 -	0.000	1.785
FY 2018 Plans: -Continue systems integration activity at the Government Systems In vehicle systems to include battle space awareness, command and correquirements.						
FY 2019 Base Plans: -Continue JLTV systems integration activity at the GSIL to include envehicle, of evolving C4I requirements. This includes future capabilitie (MFOCs), Network on the Move (NOTM) Increment II, Communicatio (CESAS) and other radio and communication platforms.	s as well as Mounted Family of Computers					
FY 2019 OCO Plans: N/A						
FY 2018 to FY 2019 Increase/Decrease Statement: The increase between FY2018 and FY2019 of \$.285M is due to the i analysis and integration of Command, Control, Communications, Con						
Title: Test and Evaluation Events and Analysis	Articles:	0.000	13.219 -	0.000	0.000	0.000
FY 2018 Plans: -Complete activity in accordance with the program TEMP to include for the complete PCA, Manufacturing Readiness Assessment (MRA), and the complete PCA, and the complete PC						
FY 2019 Base Plans:						

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PE 0605813M: (U)Joint Light Tactical Veh (JTLV) Sys D... Navy

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Exhibit R-2A, RDT&E Project Justi	fication: PB	2019 Navy							Date: Feb	ruary 2018	
Appropriation/Budget Activity 1319 / 5				PE 06			er/Name) Tactical Veh		Number/Na int Light Tac)
B. Accomplishments/Planned Pro	grams (\$ in N	Millions, Ar	ticle Quantit	ties in Each	1)		FY 2017	7 FY 2018	FY 2019 Base	FY 2019 OCO	FY 2019 Total
N/A							F1 2017	F1 2010	Dase	000	IOIAI
FY 2019 OCO Plans: N/A											
FY 2018 to FY 2019 Increase/Decre-The decrease between FY2018 and accordance with the approved programmer.	FY2019 of \$	13.219M is			n of planned	test events i	n				
Title: Program Management Suppor	t					Article	0.00 es:	0.69	5 0.475	0.000	0.47
FY 2018 Plans: -Continue support for LRIP activity s and execution of the LRIP contract, a FY 2019 Base Plans:						ent, monitorii	ng				
-Complete support for LRIP activityInitiate activity to support the evalua	ition of currer	nt and future	e integration a	and C4I req	uirements.						
FY 2019 OCO Plans: N/A											
FY 2018 to FY 2019 Increase/Decre Decrease of \$0.220M is the result of appropriation based on the stage of	the transition		n manageme	nt efforts to	the procurer	nent					
			Accomplis	hments/Pla	nned Progr	ams Subtota	als 0.00	0 20.71	0 2.260	0.000	2.26
C. Other Program Funding Summa	ary (\$ in Milli	ons)	FY 2019	FY 2019	FY 2019					Cost To	
Line Item	FY 2017	FY 2018	Base	OCO	Total	FY 2020	FY 2021	FY 2022	FY 2023	Complete	Total Cos
PMC/5095: Joint Light Tactical Vehicle (JLTV)	104.230	233.639	607.011	-	607.011	707.778	475.381	439.744	421.609		3,765.57
RDT&E/0605812M: Joint Light Tactical Vehicle (JLTV) EMD	7.657	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	127.34
 OPA/D15603: JLTV (Army) 	587.514	804.440	1,319.436	_	1 310 436	1 1/17 2/16	1,242.725	1 3/6 783	1 211 102	14 970 677	22 044 52

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PE 0605813M: (U)Joint Light Tactical Veh (JTLV) Sys D... Navy

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Exhibit R-2A, RDT&E Project Justification: PB 2019 Navy		Date: February 2018
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0605813M I (U)Joint Light Tactical Veh (JTLV) Sys Dev & Dem	Project (Number/Name) 3209 I Joint Light Tactical Vehicle
C. Other Program Funding Summary (\$ in Millions)		

C. Other Program Funding Summary (\$ in Willions)

			FY 2019	FY 2019	FY 2019					Cost To	
<u>Line Item</u>	FY 2017	FY 2018	Base	000	Total	FY 2020	FY 2021	FY 2022	FY 2023	Complete	Total Cost
RDT&E/VU9:	11.086	23.467	2.686	-	2.686	2.732	1.744	2.789	4.799	74.341	584.096
0605812A - JLTV (Army)											

Remarks

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 FRP decision. A ramp up of JLTV quantities will continue to support fielding to U.S. Army and USMC units once the FRP decision is achieved and allow the program to transition into Full Rate production.

The JLTV program will continually monitor emerging technologies and capabilities through its partnerships with U.S. Army and USMC 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 system Life Cycle.

E. Performance Metrics

Milestone Reviews

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)
PE 0605813M / (U)Joint Light Tactical Veh (JTLV) Sys Dev & Dem

Project (Number/Name)
3209 / Joint Light Tactical Vehicle

Product Developmen	nt (\$ in Mi	illions)		FY 2	017	FY 2	2018	FY 2 Ba		FY 2	2019 CO	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
Live Fire Test Support	C/FFP	Oshkosh Defense : Oshkosh, WI	0.000	0.000		5.296	Jan 2018	0.000		-		0.000	0.760	6.056	-
	•	Subtotal	0.000	0.000		5.296		0.000		-		0.000	0.760	6.056	N/A

Remarks

FY17 and prior year details provided in PE 0605812M/Project 3209

-The decrease between FY2018 and FY2019 of \$5.296M is the result of the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan (TEMP).

Support (\$ in Million	s)			FY 2	2017	FY 2	2018		2019 ise		2019 CO	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	Total Cost	Target Value of Contract
System Integration-GSIL	MIPR	SPAWAR Atlantic : Charleston, SC	0.000	0.000		1.500	Feb 2018	1.785	Feb 2019	-		1.785	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		1.500		1.785		-		1.785	Continuing	Continuing	N/A

Remarks

FY17 and prior year details provided in PE 0605812M/Project 3209

- The increase between FY2018 and FY2019 of \$.285M is due to the increased requirements for engineering analysis and integration of Command, Control, Communications, Computers and intelligence (C4I) hardware.

Test and Evaluation ((\$ in Milli	ons)		FY 2	2017	FY 2	2018	FY 2 Ba		FY 2	2019 CO	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
Developmental Test and Evaluation (Performance, RAM, Ballistic, Report Generation	MIPR	Government Proving Grounds-ATC : Aberdeen, MD	0.000	0.000		0.698	Jan 2018	0.000		-		0.000	0.000	0.698	-
Operational Test and Evaluation (Performance,	MIPR	Government Proving Grounds-Various : Various	0.000	0.000		10.074	Jan 2018	0.000		-		0.000	0.000	10.074	-

PE 0605813M: (U)Joint Light Tactical Veh (JTLV) Sys D... Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)
PE 0605813M / (U)Joint Light Tactical Veh
(JTLV) Sys Dev & Dem

Date: February 2018

R-1 Program Element (Number/Name)
3209 / Joint Light Tactical Vehicle

Test and Evaluation	(\$ in Milli	ons)		FY 2	2017	FY :	2018	FY 2 Ba	2019 ise		2019 CO	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
RAM, Ballistic, Report Generation															
Developmental Test and Evaluation Oversight	MIPR	MCOTEA : Quantico, VA	0.000	0.000		0.200	Jan 2018	0.000		-		0.000	0.000	0.200	-
Live Fire Test and Evaluation	MIPR	ATC : Aberdeen, MD	0.000	0.000		1.767	Jan 2018	0.000		-		0.000	0.000	1.767	-
Developmental Test and Evaluation	C/FFP	CORVID : Moorsville, NC	0.000	0.000		0.480	May 2018	0.000		-		0.000	0.000	0.480	-
		Subtotal	0.000	0.000		13.219		0.000		-		0.000	0.000	13.219	N/A

Remarks

FY17 and prior year details provided in PE 0605812M/Project 3209

-The decrease between FY2018 and FY2019 of \$13.219M is the result of the conclusion of planned test events in accordance with the approved program Test and Evaluation Master Plan (TEMP).

Management Servic	es (\$ in M	illions)		FY 2	2017	FY 2	2018		2019 ise	FY 2		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	Total Cost	Target Value of Contract
Program Management Support	C/FFP	Kalman, Inc : Stafford, VA	0.000	0.000		0.245	Dec 2017	0.227	Dec 2018	-		0.227	0.000	0.472	-
Program Management Support	C/CPFF	CECOM/MITRE : Aberdeen, MD	0.000	0.000		0.150	Sep 2018	0.148	Sep 2019	-		0.148	0.000	0.298	-
Travel	Various	MCSC : Quantico, VA	0.000	0.000		0.300	Oct 2017	0.100	Oct 2018	-		0.100	0.000	0.400	-
		Subtotal	0.000	0.000		0.695		0.475		-		0.475	0.000	1.170	N/A

Remarks

FY17 and prior year details provided in PE 0605812M/Project 3209

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2019 Navy								Date:	Date: February 2018			
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0605813M I (U)Joint Light Tactical Veh (JTLV) Sys Dev & Dem				Project (Number/Name) 3209 I Joint Light Tactical Vehicle				
	Prior Years	FY 201	7	FY 2018	FY 2019 Base	FY 2			Cost To	Total Cost	Target Value of Contract	
Project Cost Totals	0.000	0.000	20	710	2.260	-		2.260	Continuing	Continuing	N/A	
Remarks												

Exhibit R-4, RDT&E Schedule Profile: PB 2019 Navy

Date: February 2018

Appropriation/Budget Activity

1319 / 5

R-1 Program Element (Number/Name)
PE 0605813M I (U)Joint Light Tactical Veh
(JTLV) Sys Dev & Dem

Project (Number/Name)

3209 I Joint Light Tactical Vehicle

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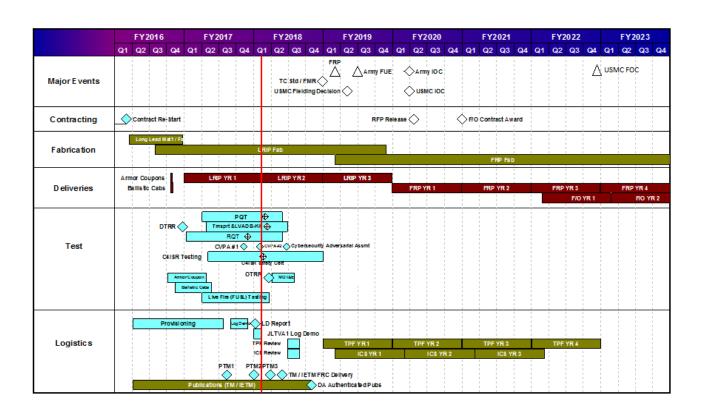


Exhibit R-4A, RDT&E Schedule Details: PB 2019 Navy	Date: February 2018		
1319 / 5	- 3 (- 3 (umber/Name) nt Light Tactical Vehicle

Schedule Details

	Sta	Start		
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3209				
Requirements/Production Qualification Test	1	2017	2	2018
Full Up Systems Level Test	1	2017	1	2018
Logistics Demonstration	3	2017	1	2018
Multi-Service Operational Test and Evaluation	2	2018	3	2018
Full Rate Production Decision	1	2019	1	2019
USMC Fielding Decision	2	2019	2	2019
USMC Initial Operational Capability	1	2020	1	2020
USMC Full Operational Capability	4	2022	4	2022
Full Operational Capability	4	2022	4	2022