

**UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy										Date: March 2019		
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605813M I (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	0.000	19.467	0.000	2.105	-	2.105	0.000	0.000	0.000	0.000	0.000	21.572
3209: Joint Light Tactical Vehicle	0.000	19.467	0.000	2.105	-	2.105	0.000	0.000	0.000	0.000	0.000	21.572
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 JLTV Family of Vehicles (FoV) to include the development and testing of Command, Control, Communications, Computers, & Intelligence (C4I) for integration with the JLTV. 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 features include increased performance, protection, and payload over the current legacy High Mobility Multipurpose Wheeled Vehicle (HMMWV) fleet, minimizing ownership costs by maximizing commonality, fuel efficiency and reliability. The commonality of components, maintenance procedures, training, etc, among vehicles are inherent in FoV solutions across mission variants to minimize total ownership cost. Unique service requirements have been minimized.  Major FY20 budget activities include systems engineering/integration activities, design analysis and tests conducted at the Joint GSIL. Efforts will focus on enhancing performance of Command, Control, Communications, Computers and Intelligence Surveillance and Reconnaissance (C4ISR) system capabilities as they relate to the JLTV; developmental efforts required for the integration of future C4ISR requirements on the JLTV; and cyber security vulnerability assessment and development of associated solutions of the JLTV system and integrated GFE and software. Future C4ISR integration activities such as: Network on the Move (NOTOM) Ground Combat Vehicles; Mounted Family of Computers Core Services (MFoCS); Communications Emitter Sensing and Attack Systems (CESAS); and Military GPS User Equipment (MGUE).												

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B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	20.710	2.260	2.122	-	2.122
Current President's Budget	19.467	0.000	2.105	-	2.105
Total Adjustments	-1.243	-2.260	-0.017	-	-0.017
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.260			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.453	0.000			
• SBIR/STTR Transfer	-0.790	0.000			
• Rate/Misc Adjustments	0.000	0.000	-0.017	-	-0.017
Change Summary Explanation					
The funding increase from FY 2019 to FY 2020 of \$2.105M is required for Government Systems Integration Laboratory (GSIL) systems engineering, design analysis and integration efforts for the JLTV and reflects the Congressional Directed Reduction of FY 2019 funding.					

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy										Date: March 2019		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0605813M I (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem				Project (Number/Name) 3209 I Joint Light Tactical Vehicle			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
3209: Joint Light Tactical Vehicle	0.000	19.467	0.000	2.105	-	2.105	0.000	0.000	0.000	0.000	0.000	21.572
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
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 increase from FY 2019 to FY 2020 of \$2.105M is required for Government Systems Integration Laboratory (GSIL) systems engineering, design analysis and integration efforts for the JLTV.												
A. Mission Description and Budget Item Justification												
Funding supports the JLTV Family of Vehicles (FoV) to include the development and testing of Command, Control, Communications, Computers, & Intelligence (C4I) for integration with the JLTV. 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 features 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 are inherent in FoV solutions across mission variants to minimize total ownership cost. Unique service requirements have been minimized.												
Funding supports modernization of the current JLTV by investigating technology insertions including, but not limited to: condition based maintenance, vetronics, Victory Architecture, autonomous operations and other emerging technologies.												
Major FY20 budget activities include systems engineering/integration activities, design analysis and tests conducted at the Joint GSIL. Efforts will focus on enhancing performance of Command, Control, Communications, Computers and Intelligence Surveillance and Reconnaissance (C4ISR) system capabilities as they relate to the JLTV; developmental efforts required for the integration of future C4ISR requirements on the JLTV; and cyber security vulnerability assessment and development of associated solutions of the JLTV system and integrated GFE and software. Future C4ISR integration activities include efforts such as: Network on the Move (NOTOM) Ground Combat Vehicles; Mounted Family of Computers Core Services (MFoCS); Communications Emitter Sensing and Attack Systems (CESAS); and Military GPS User Equipment (MGUE).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	
Title: Government Systems Integration Laboratory (GSIL) Analysis and Support Engineering							2.239	0.000	2.105	0.000	2.105	
Articles:							-	-	-	-	-	

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Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0605813M / (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem		Project (Number/Name) 3209 / Joint Light Tactical Vehicle		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
FY 2019 Plans: N/A						
FY 2020 Base Plans: Systems analysis and integration activity at the GSIL will assess the JLTV requirements associated with power, weight and space for upgraded legacy C4I systems as well as the introduction of future capabilities such as Mounted Family of Computers (MFOCs), Network on the Move (NOTM), Communications Emitter Sensing and Attack Systems (CESAS), Military GPS User Equipment, and other radio communication platforms.						
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: NOTE: The funding increase of \$2.105M from FY 2019 to FY 2020 provides for the continuation of systems analysis and integration activity as well as the exploration of future capabilities such as Mounted Family of Computers (MFOCs), Network on the Move (NOTM), Communications Emitter Sensing and Attack Systems (CESAS), Military GPS User Equipment, and other radio communication platforms.						
Title: Test and Evaluation Events and Analysis  Articles:		15.812 -	0.000 -	0.000 -	0.000 -	0.000 -
FY 2019 Plans: N/A						
FY 2020 Base Plans: N/A						
FY 2020 OCO Plans: N/A						
Title: Program Management Support  Articles:		1.416 -	0.000 -	0.000 -	0.000 -	0.000 -
FY 2019 Plans: N/A						
FY 2020 Base Plans:						

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2020 Navy				<b>Date:</b> March 2019				
<b>Appropriation/Budget Activity</b> 1319 / 5			<b>R-1 Program Element (Number/Name)</b> PE 0605813M / (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem			<b>Project (Number/Name)</b> 3209 / Joint Light Tactical Vehicle		

<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>
N/A					
<b>FY 2020 OCO Plans:</b> N/A					
<b>Accomplishments/Planned Programs Subtotals</b>	19.467	0.000	2.105	0.000	2.105

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020 Base</b>	<b>FY 2020 OCO</b>	<b>FY 2020 Total</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PMC/5095: Joint Light Tactical Vehicle (JLTV)	233.439	599.274	558.107	-	558.107	484.337	441.728	423.591	432.023	627.564	3,970.296
• OPA/D15603: JLTV (Army)	810.050	1,279.437	996.007	-	996.007	1,096.958	1,096.862	1,096.787	1,096.571	12,204.788	20,670.601
• RDT&E/VU9: 0605812A - JLTV (Army)	16.853	0.000	2.732	-	2.732	1.744	1.801	1.835	2.010	31.224	529.737

**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 Full Rate procurement (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.

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. The JLTV program will look for opportunities to implement increased capabilities throughout the systems' life cycle.

**E. Performance Metrics**  
 Full Rate Production Decision (FRP) May 2019

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2020 Navy</b>												<b>Date:</b> March 2019			
<b>Appropriation/Budget Activity</b> 1319 / 5						<b>R-1 Program Element (Number/Name)</b> PE 0605813M / (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem						<b>Project (Number/Name)</b> 3209 / Joint Light Tactical Vehicle			
<b>Support (\$ in Millions)</b>				<b>FY 2018</b>		<b>FY 2019</b>		<b>FY 2020 Base</b>		<b>FY 2020 OCO</b>		<b>FY 2020 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
System Integration-GSIL	MIPR	SPAWAR Atlantic : Charleston, SC	0.000	2.239	Feb 2018	0.000		2.105	Feb 2020	-		2.105	0.000	4.344	Continuing
<b>Subtotal</b>			0.000	2.239		0.000		2.105		-		2.105	0.000	4.344	N/A
<b>Remarks</b> FY2017 and prior year details provided in PE 0605812M/Project 3209 FY2020 supports systems engineering/integration activities, design analysis and tests conducted at the Joint GSIL. Efforts will focus on enhancing performance of Command, Control, Communications, Computers and Intelligence Surveillance and Reconnaissance (C4ISR).															
<b>Test and Evaluation (\$ in Millions)</b>				<b>FY 2018</b>		<b>FY 2019</b>		<b>FY 2020 Base</b>		<b>FY 2020 OCO</b>		<b>FY 2020 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Multi-Service Operational Test and Evaluation (MOT&E) & follow-on testing	MIPR	Government Proving Grounds-Various : Various	0.000	11.407	Jan 2018	0.000		0.000		-		0.000	0.000	11.407	-
Developmental Test and Evaluation Oversight	MIPR	MCOTEA : Quantico, VA	0.000	0.203	Jan 2018	0.000		0.000		-		0.000	0.000	0.203	-
R&D system integration test vehicles/kits	C/FFP	Oshkosh : Oshkosh, WC	0.000	4.202	Nov 2018	0.000		0.000		-		0.000	0.000	4.202	-
<b>Subtotal</b>			0.000	15.812		0.000		0.000		-		0.000	0.000	15.812	N/A
<b>Remarks</b> FY17 and prior year details provided in PE 0605812M/Project 3209															
<b>Management Services (\$ in Millions)</b>				<b>FY 2018</b>		<b>FY 2019</b>		<b>FY 2020 Base</b>		<b>FY 2020 OCO</b>		<b>FY 2020 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Program Management Support	C/CPFF	Various : Various	0.000	0.211	Feb 2018	0.000		0.000		-		0.000	0.000	0.211	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2020 Navy</b>													<b>Date:</b> March 2019			
<b>Appropriation/Budget Activity</b> 1319 / 5							<b>R-1 Program Element (Number/Name)</b> PE 0605813M / (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem					<b>Project (Number/Name)</b> 3209 / Joint Light Tactical Vehicle				

Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Travel	Various	MCSC : Quantico, VA	0.000	1.205	Oct 2017	0.000		0.000		-		0.000	0.000	1.205	-
<b>Subtotal</b>			0.000	1.416		0.000		0.000		-		0.000	0.000	1.416	N/A

<b>Remarks</b> FY17 and prior year details provided in PE 0605812M/Project 3209															
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	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	0.000	19.467	0.000	2.105	-	2.105	0.000	21.572	N/A

<b>Remarks</b>									
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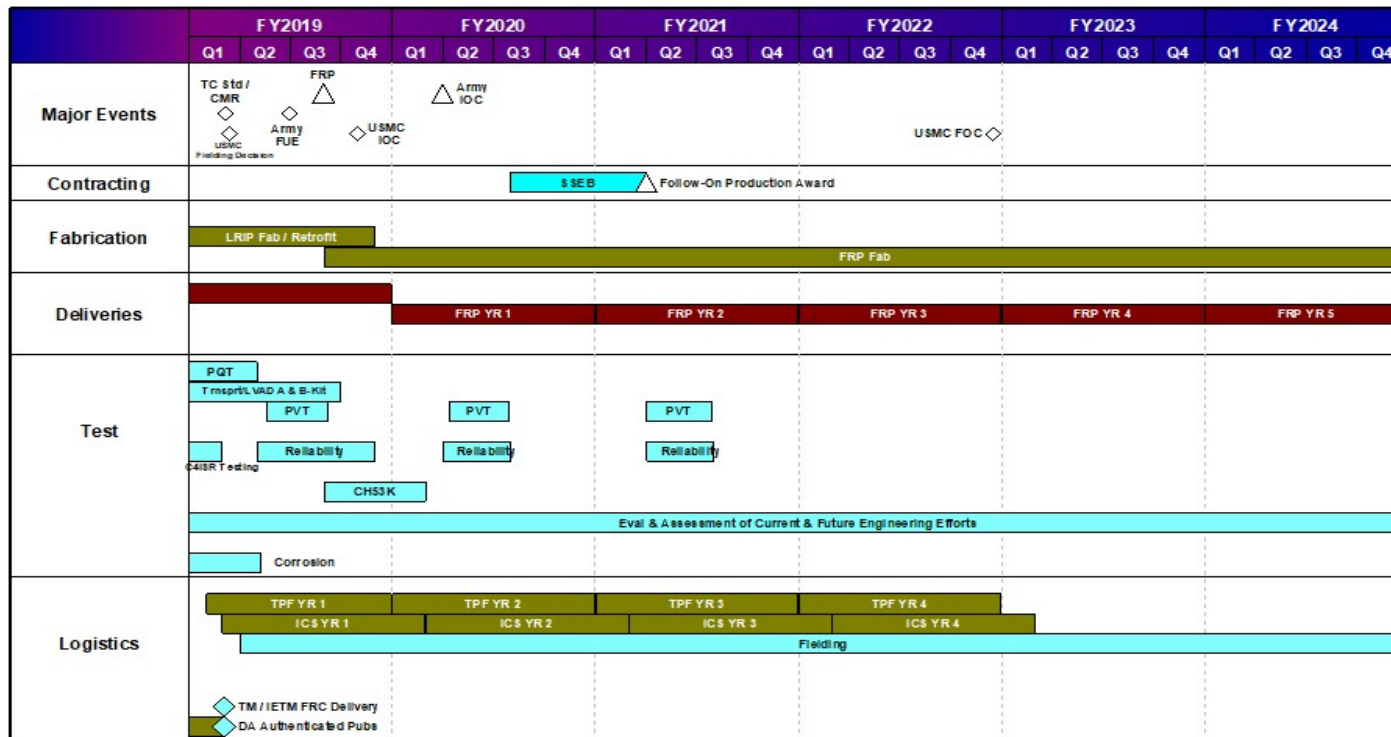
Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy

Date: March 2019

Appropriation/Budget Activity  
1319 / 5

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

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



ICS – Interim Contractor Support  
PVT – Product Verification Testing  
TPF – Total Package Fielding



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2020 Navy		<b>Date:</b> March 2019
<b>Appropriation/Budget Activity</b> 1319 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605813M / (U)Joint Light Tactical Veh (JLTV) Sys Dev & Dem	<b>Project (Number/Name)</b> 3209 / Joint Light Tactical Vehicle

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>Proj 3209</b>				
USMC Fielding Decision	1	2019	1	2019
Full Rate Production Decision	3	2019	3	2019
USMC Initial Operational Capability	4	2019	4	2019
USMC Full Operational Capability	4	2022	4	2022