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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604611A / JAVELIN
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	-	8.202	16.186	7.827	-	7.827	10.384	10.065	10.172	10.286	0.000	73.122
499: <i>Javelin (AAWS-M)</i>	-	8.202	16.186	7.827	-	7.827	10.384	10.065	10.172	10.286	0.000	73.122

A. Mission Description and Budget Item Justification

Javelin is a man-portable, fire-and-forget, medium-range missile with enhanced situational awareness and precision direct-fire effects to defeat armored vehicles, fortifications, and soft targets in a range of military operations. The Javelin Weapon System consists of a re-usable Command Launch Unit (CLU) and a modular missile encased in a disposable launch tube assembly. The system also includes training devices for tactical training and classroom training. Javelin has a high kill rate against a variety of targets at extended ranges under day/night, battlefield obscurants, adverse weather and multiple counter-measure conditions. Javelin has proven adaptability for use on a variety of platforms and remote weapon stations. Research, Development, Test & Evaluation (RDT&E) funding provides for system improvements in accordance with the Javelin Capabilities Production Document objectives and user priorities for future development.

FY 2024 dollars in the amount of \$7.827 million will continue Javelin system improvements to address emerging threats, improve engagement timeline, and increase lethality.

B. Program Change Summary (\$ in Millions)

	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	7.094	7.870	7.993	-	7.993
Current President's Budget	8.202	16.186	7.827	-	7.827
Total Adjustments	1.108	8.316	-0.166	-	-0.166
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	8.316			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.108	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.166	-	-0.166

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 499: *Javelin (AAWS-M)*

Congressional Add: *Program Increase - Army Requested Transfer from MiP Line 11*

Congressional Add Subtotals for Project: 499

	FY 2022	FY 2023
	-	8.316
Congressional Add Subtotals for Project: 499	-	8.316

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Congressional Add Details (\$ in Millions, and Includes General Reductions)

	FY 2022	FY 2023
Congressional Add Totals for all Projects	-	8.316

Change Summary Explanation

Decreased funding to support higher Army priorities.

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Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604611A / JAVELIN				Project (Number/Name) 499 / Javelin (AAWS-M)			
COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
499: Javelin (AAWS-M)	-	8.202	16.186	7.827	-	7.827	10.384	10.065	10.172	10.286	0.000	73.122
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Javelin is a man-portable, fire-and-forget, medium-range missile with enhanced situational awareness and precision direct-fire effects to defeat armored vehicles, fortifications, and soft targets in a range of military operations. The Javelin Weapon System consists of a re-usable Command Launch Unit (CLU) and a modular missile encased in a disposable launch tube assembly. The system also includes training devices for tactical training and classroom training. Javelin has a high kill rate against a variety of targets at extended ranges under day/night, battlefield obscurants, adverse weather and multiple counter-measure conditions. Javelin has proven adaptability for use on a variety of platforms and remote weapon stations. Research, Development, Test & Evaluation (RDT&E) funding provides for system improvements in accordance with the Javelin Capabilities Production Document objectives and user priorities for future development.

FY 2024 dollars in the amount of \$7.827 million will continue Javelin system improvements to address emerging threats, improve engagement timeline, and increase lethality.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2022	FY 2023	FY 2024
Title: Javelin System Improvements	8.092	7.471	7.712
Description: Javelin Weapon System Research and Development funding line completes development of a new Lightweight Command Launch Unit (LWCLU), conducts countermeasure and threat mitigation as well as develops critical software/hardware upgrades for the Javelin Missile System. It provides improved capability to the warfighter by doubling the target identification range and increasing system engagement range up to 4km, while reducing soldier burden. LWCLU and Missile Software improvements, like Auto-Gate/Fast-Launch, will address emerging threats, improve engagement timeline, and increase lethality.			
FY 2023 Plans: Continue LWCLU Qualification Testing. Complete LWCLU Operational Testing. Perform and complete LWCLU Airborne Compatibility Qualification Test.			
FY 2024 Plans: Complete LWCLU Qualification Testing. Begin software improvements, including Auto-Gate/Fast-Launch, to improve the Javelin Weapons System engagement time and increase lethality against emerging threats and potential adversary countermeasures.			
FY 2023 to FY 2024 Increase/Decrease Statement: Funding decrease from FY 2023 to FY 2024 is due to completion of LWCLU Operational Test and Airborne Compatibility Qualification Test.			
Title: Integration and Countermeasure/Threat management	0.110	0.112	0.115

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
<p>Description: Integration and Countermeasure/Threat management allows for technical assessments, concept studies, documentation, prototypes, demonstrations and risk mitigation efforts to address emerging threats and to maintain modernized overmatch capability for U.S. and Allied Nations ground forces.</p> <p>FY 2023 Plans: Continue to perform technical assessments, concept studies, prepare documentation, develop prototypes and perform risk reduction efforts to address emerging threats as well as peer and near peer adversary Javelin countermeasures.</p> <p>FY 2024 Plans: Continue to perform technical assessments, concept studies, prepare documentation, develop prototypes and perform risk reduction efforts to address emerging threats as well as peer and near peer adversary Javelin countermeasures.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: No significant increase from FY 2023 to FY 2024.</p>			
<p>Title: SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC 638.</p> <p>FY 2023 Plans: Funding transferred in accordance with Title 15 USC 638.</p> <p>FY 2023 to FY 2024 Increase/Decrease Statement: Funding transferred in accordance with Title 15 USC 638.</p>	-	0.287	-
Accomplishments/Planned Programs Subtotals	8.202	7.870	7.827

	FY 2022	FY 2023
Congressional Add: Program Increase - Army Requested Transfer from MiP Line 11	-	8.316
FY 2023 Plans: Congressional Interest Item funding provided for Army Requested Transfer from MiP Line 11.		
Congressional Adds Subtotals	-	8.316

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• H06102: JAVELIN (AAWS-M)	1,173.216	368.530	132.564	-	132.564	164.992	122.085	122.245	122.371	0.000	2,206.003

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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / JAVELIN	Project (Number/Name) 499 / Javelin (AAWS-M)
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u> <u>Base</u>	<u>FY 2024</u> <u>OCO</u>	<u>FY 2024</u> <u>Total</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• H06103: <i>Javelin Lightweight Command Launch Unit (CLU)</i>	213.793	63.122	66.945	-	66.945	77.296	77.120	77.224	77.305	0.000	652.805

Remarks

D. Acquisition Strategy

Current Acquisition Strategy addresses software and hardware technology upgrades to the Javelin system. The Javelin Lightweight Command Launch Unit (LWCLU) addresses the Close Combat Missile System-Medium (CCMS-M) Capability Production Document requirement for a low soldier burden dismounted anti-tank missile system. System upgrades will address emerging threats, improve engagement timeline and increase lethality. Development effort utilizes prime contractor, Javelin Joint Venture (Raytheon, Tucson, AZ, and Lockheed Martin, Orlando, FL). The Javelin Joint Venture has invested Independent Research and Development in the LWCLU. Future LWCLU and Missile system upgrades will continue to address emerging threats and ensure modernized overmatch capability for U.S and allied ground forces. LWCLU is currently in Low-Rate Initial Production (LRIP) with Full-Rate Production (FRP) scheduled in FY 2024. Pre-Planned Product Improvements will be cut into future production as Engineering Change Proposals (ECPs) to the existing LWCLU and missile configurations. These improvements will include technology refresh efforts as necessary, and capability enhancements as prioritized by the requirements developer.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Army												Date: March 2023			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604611A / JAVELIN				Project (Number/Name) 499 / Javelin (AAWS-M)					
Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
System Engineering/ Program Management, Govt	Various	Multiple : Redstone Arsenal, AL	5.230	0.937	Feb 2022	0.467	Mar 2023	0.769	Feb 2024	-		0.769	0.000	7.403	-
SBIR/STTR Transfer	TBD	Various : Various	-	-		0.287		-		-		-	0.000	0.287	-
Subtotal			5.230	0.937		0.754		0.769		-		0.769	0.000	7.690	N/A
Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Javelin System Improvements	Various	Multiple : Various Locations	56.760	2.371	Jul 2022	-		6.943	Mar 2024	-		6.943	0.000	66.074	-
Integration and Counter Measure/Threat management	MIPR	Multiple : Various Locations	-	0.110	Mar 2022	0.112	Mar 2023	0.115	Mar 2024	-		0.115	0.000	0.337	-
Subtotal			56.760	2.481		0.112		7.058		-		7.058	0.000	66.411	N/A
Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 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
Lightweight CLU Qualification	SS/CPFF	JJV/Raytheon/ Lockheed Martin : Orlando, FL/Tucson, AZ	3.836	3.982	Feb 2023	9.561	Feb 2023	-		-		-	0.000	17.379	-
Lightweight CLU Qualification	MIPR	Redstone Test Center : Redstone Arsenal, AL	1.048	-		-		-		-		-	0.000	1.048	-
Lightweight CLU Airborne Compatibility Qualification Test	MIPR	Yuma Proving Grounds : Yuma, AZ	-	-		0.381	Apr 2023	-		-		-	0.000	0.381	-
Lightweight CLU Operational Testing	MIPR	Multiple : Various Locations	-	0.802	Oct 2022	5.378	Apr 2023	-		-		-	0.000	6.180	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / JAVELIN	Project (Number/Name) 499 / Javelin (AAWS-M)
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Event Name	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	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
Lightweight Command Launch Unit (LWCLU)																												
LWCLU Qualification Testing																												
LWCLU Airborne Compatibility Qualification Test																												
LWCLU Operational Testing																												
Javelin System Improvements																												
Auto-Gate/Fast-Launch																												
LWCLU HIPPI CCA Future Growth																												
Integration and Counter Measure/Threat management																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Army **Date:** March 2023

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604611A / JAVELIN	Project (Number/Name) 499 / Javelin (AAWS-M)
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Lightweight Command Launch Unit (LWCLU)	3	2021	1	2024
LWCLU Qualification Testing	3	2021	1	2024
LWCLU Airborne Compatibility Qualification Test	4	2023	4	2023
LWCLU Operational Testing	1	2023	4	2023
Javelin System Improvements	1	2020	4	2028
Auto-Gate/Fast-Launch	1	2024	4	2028
LWCLU HIPPI CCA Future Growth	1	2025	4	2028
Integration and Counter Measure/Threat management	4	2022	4	2028