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**Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>
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COST (\$ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	96.819	73.675	64.113	-	64.113	50.097	14.919	76.718	51.468	Continuing	Continuing
BQ5: <i>Visual Augmentation System Advanced Development</i>	-	68.153	67.935	58.592	-	58.592	44.459	9.222	70.958	45.650	Continuing	Continuing
VT7: <i>Soldier Maneuver Sensors - Adv Dev</i>	-	26.696	3.729	3.507	-	3.507	3.622	3.660	3.700	3.737	Continuing	Continuing
VT8: <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>	-	1.970	2.011	2.014	-	2.014	2.016	2.037	2.060	2.081	Continuing	Continuing

**A. Mission Description and Budget Item Justification**

A portion of this funding line is directly aligned to the Army Soldier Lethality Modernization Priority in support of situational awareness for the Close Combat Soldier. This Program Element focuses on efforts to evaluate and integrate technologies and representative prototype systems that facilitate the development of Soldier-borne sensor devices transitioning from the laboratory to operational use. Efforts focus on proving out commonality across as broad a spectrum of users as possible to provide enhanced Soldier products, giving them superiority on the battlefield.

Project BQ5 (Visual Augmentation System-Advanced Development) This project evaluates and integrates technologies and representative prototype systems transitioning from the Science and Technology (S&T) stage. It focuses on developing the next generation augmented vision and situational awareness system that provides the Soldier with the ability to fight, rehearse, train and win during multi-domain operations. Funded efforts will accelerate the development of components, terrain shared coordinate data and processing, algorithms including machine learning/artificial intelligence and demonstrations in support of the next generation augmented vision and situational awareness system. Efforts will provide rapid decision making and passive targeting capabilities with the integration of external video and data sources such as weapon sights, air and ground vehicles and other data sources enabled by tactical cloud package and advanced network services. This project will provide data driven analytics to optimize unit performance and enhance lethality and to enable Synthetic Training Environment (STE) squad capability to perform live mixed reality training and rehearsing. This project includes costs for efforts associated with movement of information and high-level processing, integration, and interface of products with the Soldiers' head, body, weapon, and platforms. Funding in this project aligns with the Army's priorities in support of the National Defense Strategy. This project supports the Soldier Lethality Cross Functional Team.

The total cost of the Integrated Visual Augmentation 1.2 Rapid Prototyping Middle Tier of Acquisition effort is \$314.0 million RDT&E from FY22 to FY25. The remainder of the IVAS 1.2 Rapid Prototyping MTA is fully funded across the Future Years Defense Program.

Project VT7 (Soldier Maneuver Sensors-Advanced Development) project enables development of emerging capabilities for the maneuver force, that are envisioned by the Soldier Lethality Cross Functional Team, the Maneuver Center of Excellence (MCoE), the Maneuver Capabilities Development Integration Directorate (MCDID), the Science and Technology (S&T) community, industry partners or the acquisition workforce that may provide the Soldier or Squad increased capability to "fight, win and

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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	
<p>survive, day and night, in a multi- domain environment now and tomorrow". This project also allows pursuit of technology breakthroughs that challenge current technical solutions and have the potential for providing increased Soldier performance. This effort focuses on capabilities that enable modernization of Soldier sensor and laser devices, including digital features and enhanced solutions including maneuver capabilities to detect, recognize and identify targets, and to provide target acquisition and handoff but not limited to capabilities to mitigate threats. The integration of higher performing multi-spectral sensors with smart processing will provide adjusted weapon sight reticles and leverage network connectivity for improved situational awareness/understanding. Additional project capabilities include advanced optical components and assemblies and techniques for signature management, resiliency across the electromagnetic spectrum, and integration of a modular design structure for target acquisition applications including support for wireless data transfer, passive range determination, technologies for working in a global positioning system (GPS) contested environment, advanced GPS replacement technologies and mitigation of manned and unmanned threat sensor systems. This project supports efforts to evaluate and integrate technologies and representative prototype systems including Micro Electronics Modules (MEMS) technology with improved size, weight and power for development of modernized Soldier sensor capabilities transitioning from the S&amp;T stage to operational use. This project includes costs for efforts associated with development, certification, verification and validation of interface products into the Adaptive Squad Architecture (ASA). This project also includes development of tools and emulators of ASA components. Funding in this project aligns with Army's priorities in support of the National Defense Strategy.</p> <p>Project VT8 (Soldier Precision Targeting Devices - Advanced Development) enables development of emerging technologies for the Fires community, that are envisioned by the Fires Center of Excellence (FCoE), the Fires Capabilities Development and Integration Directorate (FCDID), the Science and Technology (S&amp;T) community, industry partners and the acquisition workforce that provide the Fire Support Soldier increased capability and reduced weight to improve operational effectiveness. This project focuses on developing component technologies and representative prototype systems for Soldier portable precision targeting devices to continue improvements to system performance while reducing size, weight, and power required by those systems. The effort will consider emerging Micro-Electronic Modules (MEMs) technologies for improved efficiency and performance. Efforts will improve the Soldier's ability to precisely locate and laser designate targets across a broader range of operating environments, including all weather conditions and in GPS-contested environments using active and passive methods and technologies. Component technology development will precede integration into specific systems and will include improved Precision Azimuth and Vertical Angle Measurement (PAVAM) devices; solid-state, improved lasers for range finding/designation/markings; novel passive target acquisition methods; electro-optical sensors such as infrared, near-infrared, ultra-violet, and visible spectrum imagers; sensor and data fusion; laser designator spot detection and imaging; integration of advanced power management technologies, and GPS M-Code receivers. Funding in this project aligns with Army's priorities in support of the National Defense Strategy.</p>		

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2025 Army	<b>Date:</b> March 2024
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<b>Appropriation/Budget Activity</b> 2040: <i>Research, Development, Test &amp; Evaluation, Army / BA 4: Advanced Component Development &amp; Prototypes (ACD&amp;P)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>
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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>
Previous President's Budget	97.478	73.675	34.683	-	34.683
Current President's Budget	96.819	73.675	64.113	-	64.113
Total Adjustments	-0.659	0.000	29.430	-	29.430
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.001	-			
• SBIR/STTR Transfer	-0.658	-			
• Adjustments to Budget Years	-	-	29.430	-	29.430

**Change Summary Explanation**

The funding increase reflects the realignment of resources from PE 0604710A / Night Vision Systems, Project BQ6/ Visual Augmentation System Engineering Development (6.5) to support IVAS modernization cycle within the Night Vision Systems portfolio.

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 2040 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>				<b>Project (Number/Name)</b> BQ5 / <i>Visual Augmentation System Advanced Development</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
BQ5: <i>Visual Augmentation System Advanced Development</i>	-	68.153	67.935	58.592	-	58.592	44.459	9.222	70.958	45.650	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project evaluates and integrates technologies and representative prototype systems transitioning from the Science and Technology (S&T) stage. It focuses on developing the next generation augmented vision and situational awareness system that provides the Soldier with the ability to fight, rehearse, train and win during multi-domain operations. Funded efforts will accelerate the development of components, terrain shared coordinate data and processing, algorithms including machine learning/artificial intelligence and demonstrations in support of the next generation augmented vision and situational awareness system. Efforts will provide rapid decision making and passive targeting capabilities with the integration of external video and data sources such as weapon sights, air and ground vehicles and other data sources enabled by tactical cloud package and advanced network services. This project will provide data driven analytics to optimize unit performance and enhance lethality and to enable Synthetic Training Environment (STE) squad capability to perform live mixed reality training and rehearsing. This project includes costs for efforts associated with movement of information and high-level processing, integration, and interface of products with the Soldiers' head, body, weapon, and platforms. Funding in this project aligns with the Army's priorities in support of the National Defense Strategy. This project supports the Soldier Lethality Cross Functional Team.

The total cost of the Integrated Visual Augmentation 1.2 Rapid Prototyping Middle Tier of Acquisition effort is \$314.0 million RDT&E from FY22 to FY25. The remainder of the IVAS 1.2 Rapid Prototyping MTA is fully funded across the Future Years Defense Program.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> Heads Up Display (HUD)	68.153	67.935	58.592
<b>Description:</b> Integrated Visual Augmentation System (IVAS) HUD provides a multiple generation single platform for Soldier to fight, rehearse, and train in day and night that provides increased lethality, mobility, and situational awareness necessary to achieve overmatch against our current and future adversaries.			
<b>FY 2024 Plans:</b> Improve HUD design by integrating improved sensors and updating hardware components and software into IVAS 1.2. Improve thermal and low light sensors, develop AI data integration, improve IVAS extensibility, improve form factor, and reliability, reduce weight and develop applications.			
<b>FY 2025 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army	<b>Date:</b> March 2024
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<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> BQ5 / <i>Visual Augmentation System Advanced Development</i>
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	FY 2023	FY 2024	FY 2025
Continue improvements to HUD design by integrating improved sensors and updating hardware components and software into IVAS. Improve thermal and low light sensors, develop Artificial Intelligence (AI) data integration, improve IVAS extensibility, improve form factor, improve reliability, reduce weight, and develop applications.			
<b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> FY 2025 decrease in funding reflects improved components transitioning to system level integration and test.			
<b>Accomplishments/Planned Programs Subtotals</b>	68.153	67.935	58.592

<b>C. Other Program Funding Summary (\$ in Millions)</b>												
<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u> <u>Base</u>	<u>FY 2025</u> <u>OCO</u>	<u>FY 2025</u> <u>Total</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• K36402: <i>IVAS/Heads Up Display</i>	-	89.451	255.491	-	255.491	-	-	-	-	-	Continuing	Continuing
• BQ6: <i>Visual Augmentation System Eng Dev</i>	66.782	7.973	39.183	-	39.183	45.371	81.675	21.066	47.396	Continuing	Continuing	

**Remarks**

**D. Acquisition Strategy**  
This project utilizes competitively awarded contracts using best value source selection procedures.

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army** **Date:** March 2024

<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / Night Vision Systems Advanced Development	<b>Project (Number/Name)</b> BQ5 / Visual Augmentation System Advanced Development
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<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management	MIPR	Various : Various	2.758	3.249	Nov 2023	5.349	Nov 2023	1.346	Nov 2024	-		1.346	Continuing	Continuing	Continuing
<b>Subtotal</b>			2.758	3.249		5.349		1.346		-		1.346	Continuing	Continuing	N/A

<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Heads Up Display (HUD)	C/FFP	Microsoft : Redmond, WA	233.274	62.794	Sep 2023	44.598	Mar 2024	-		-		-	0.000	340.666	-
Heads Up Display (HUD)	TBD	To Be Determined : To Be Determined	9.577	-		13.658	Mar 2024	53.046	Mar 2025	-		53.046	Continuing	Continuing	Continuing
Vehicle Integration	MIPR	Various : Huntsville, AL	-	2.110	Nov 2023	0.540	Mar 2024	0.540	Mar 2025	-		0.540	Continuing	Continuing	Continuing
<b>Subtotal</b>			242.851	64.904		58.796		53.586		-		53.586	Continuing	Continuing	N/A

**Remarks**  
 The decrease between FY 2024 and FY 2025 in Heads Up Display Microsoft is because we are not using FY 2025 6.4 funds towards the 1.2 effort. The increase between FY 2024 and FY2025 in Heads Up Display TBD is because FY 2025 starts development of IVAS Next and other component maturation leading towards IVAS Next.

<b>Test and Evaluation (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Systems, Test and Evaluation	TBD	Various : Various	1.657	-		3.790	Mar 2024	3.660	Mar 2025	-		3.660	0.000	9.107	-
<b>Subtotal</b>			1.657	-		3.790		3.660		-		3.660	0.000	9.107	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract	
<b>Project Cost Totals</b>		247.266	68.153	67.935	58.592	-	58.592	Continuing	Continuing	N/A

**UNCLASSIFIED**

<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2025 Army							<b>Date:</b> March 2024			
<b>Appropriation/Budget Activity</b> 2040 / 4			<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>			<b>Project (Number/Name)</b> BQ5 / <i>Visual Augmentation System Advanced Development</i>				
	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	

**Remarks**  
Some cost categories include multiple efforts, so award date is the last scheduled award date.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Army</b>			<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> BQ5 / <i>Visual Augmentation System Advanced Development</i>	

Event Name	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
1.2 Tech Insertion	[Redacted]				[Redacted]																							
HUD and System Improvements/Extensibility	[Redacted]				[Redacted]				Development				[Redacted]				[Redacted]				[Redacted]							
Platform Integration	[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]				[Redacted]							

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> BQ5 / <i>Visual Augmentation System Advanced Development</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
1.2 Tech Insertion	1	2023	2	2024
HUD and System Improvements/Extensibility	1	2025	4	2029
Platform Integration	2	2023	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 2040 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>				<b>Project (Number/Name)</b> VT7 / <i>Soldier Maneuver Sensors - Adv Dev</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
VT7: <i>Soldier Maneuver Sensors - Adv Dev</i>	-	26.696	3.729	3.507	-	3.507	3.622	3.660	3.700	3.737	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project enables development of emerging capabilities for the maneuver force, that are envisioned by the Soldier Lethality Cross Functional Team, the Maneuver Center of Excellence (MCoE), the Maneuver Capabilities Development Integration Directorate (MCDID), the Science and Technology (S&T) community, industry partners or the acquisition workforce that may provide the Soldier or Squad increased capability to "fight, win and survive, day and night, in a multi-domain environment now and tomorrow". This project also allows pursuit of technology breakthroughs that challenge current technical solutions and have the potential for providing increased Soldier performance. This effort focuses on capabilities that enable modernization of Soldier sensor and laser devices, including digital features and enhanced solutions including maneuver capabilities to detect, recognize and identify targets, and to provide target acquisition and handoff but not limited to capabilities to mitigate threats. The integration of higher performing multi-spectral sensors with smart processing will provide adjusted weapon sight reticles and leverage network connectivity for improved situational awareness/understanding. Additional project capabilities include advanced optical components and assemblies and techniques for signature management, resiliency across the electromagnetic spectrum, and integration of a modular design structure for target acquisition applications including support for wireless data transfer, passive range determination, technologies for working in a global positioning system (GPS) contested environment, advanced GPS replacement technologies and mitigation of manned and unmanned threat sensor systems. This project supports efforts to evaluate and integrate technologies and representative prototype systems including Micro Electronics Modules (MEMS) technology with improved size, weight and power for development of modernized Soldier sensor capabilities transitioning from the S&T stage to operational use. This project includes costs for efforts associated with development, certification, verification and validation of interface products into the Adaptive Squad Architecture (ASA). This project also includes development of tools and emulators of ASA components. Funding in this project aligns with Army's priorities in support of the National Defense Strategy.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> Soldier Enhanced Sensing Capabilities	26.696	3.729	3.507
<b>Description:</b> Soldier Enhanced Sensing Capabilities provides the next generation vision capabilities for day and night that will reduce the Soldier's burden and allow hands free operation. Soldier Enhanced Sensing Capabilities will provide automatic adjustment of imagery and matched sensor fields of view. This effort will further enhance day/night Rapid Target Acquisition (RTA) capabilities by ensuring goggle connectivity to weapon sights, and improved situational capabilities by enabling day/night data display on the Soldier Warrior End User Device/Computer (EUD) and Soldier Borne Sensor systems. The goggle interface will be compatible with Integrated Visual Augmentation System (IVAS) displays. This effort considers methods for obtaining range estimates without the use of active laser devices and extends the ability to send/receive data to the EUD to support advanced EUD applications by processing of sensor video, integrating it with external data sources, and producing advanced processed imagery with overlay data display. This effort will review and consider improved antenna designs and placement to maximize			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<p>efficiencies of wireless communications. This effort will further work to reduce size, weight and power of sensor and laser components including consideration of MEMS technology and considers IVAS successes to explore integrated digital, low profile, conformal day/night displays. This effort considers alternatives to potentially replace or augmenting the aging fleet of fielded night vision devices with a digital Near-Infrared (NIR) device, a peripheral overlay device, a bi-focal lens vision device, an adjustable objective lens, a wide field of view device and/or a white phosphor night vision device.</p> <p><b>FY 2024 Plans:</b> Continue development and integration of Augmented Reality (AR), Artificial Intelligence (AI) and Machine Learning (ML) as they relate to Soldier Maneuver platforms. Integrate and analyze benefits versus size, weight and power impacts of emerging RTI technologies that immerse the individual Soldier in the Digital Battlefield.</p> <p><b>FY 2025 Plans:</b> Continue development and integration of Augmented Reality (AR), Artificial Intelligence (AI) and Machine Learning (ML) as they relate to Soldier Maneuver platforms. Integrate and analyze benefits versus size, weight and power impacts of emerging RTI technologies that immerse the individual Soldier in the Digital Battlefield.</p> <p><b>FY 2024 to FY 2025 Increase/Decrease Statement:</b> Decrease in FY2024 to FY2025 is due to reduced efforts in low power/low light technology development.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	26.696	3.729	3.507

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• L67: <i>Soldier Night Vision Devices</i>	2.881	6.061	12.140	-	12.140	5.585	5.644	5.706	5.763	Continuing	Continuing
• K22002: <i>FWS-INDIVIDUAL</i>	156.649	129.807	144.152	-	144.152	93.710	92.622	92.062	92.976	0.000	801.978
• K22003: <i>FWS-CREW SERVED</i>	23.831	42.649	50.044	-	50.044	-	-	45.791	46.249	Continuing	Continuing
• K22004: <i>FWS-SNIPER</i>	18.668	13.178	13.156	-	13.156	12.885	13.149	13.371	13.505	Continuing	Continuing
• B53800: <i>Laser Target Locator Systems</i>	34.229	21.539	21.660	-	21.660	2.755	2.780	21.439	21.654	Continuing	Continuing
• K35110: <i>Small Tactical Optical Rifle Mounted MLRF</i>	11.357	15.484	10.864	-	10.864	2.166	1.562	11.078	11.188	Continuing	Continuing
• K36402: <i>IVAS/Heads Up Display</i>	-	89.451	255.491	-	255.491	-	-	-	-	Continuing	Continuing
• BQ5: <i>Visual Augmentation System Advanced Development</i>	68.153	67.935	58.592	-	58.592	44.459	9.222	70.958	45.650	Continuing	Continuing

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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>Cost To</u>	
			<u>Base</u>	<u>OCO</u>	<u>Total</u>					<u>Complete</u>	<u>Total Cost</u>
• BQ6: <i>Visual Augmentation System Eng Dev</i>	66.782	7.973	39.183	-	39.183	45.371	81.675	21.066	47.396	Continuing	Continuing
• K36400: <i>Helmet Mounted Enhanced Vision Devices</i>	358.140	30.153	100.292	-	100.292	-	-	-	-	0.000	488.585

**Remarks**

**D. Acquisition Strategy**

The various developmental programs in this project continue to exercise competitively awarded contracts using best value source selection procedures.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 4				PE 0603774A / Night Vision Systems Advanced Development				VT7 / Soldier Maneuver Sensors - Adv Dev							
<b>Management Services (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Program Management	MIPR	Various : Various	1.698	0.713	Apr 2023	0.360	Dec 2023	0.381	Dec 2024	-		0.381	Continuing	Continuing	-
<b>Subtotal</b>			1.698	0.713		0.360		0.381		-		0.381	Continuing	Continuing	N/A
<b>Product Development (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Soldier Enhanced Sensing Capabilities	MIPR	Various : Various	10.354	25.508	Aug 2023	3.214	Jan 2023	2.966	Jan 2025	-		2.966	Continuing	Continuing	-
<b>Subtotal</b>			10.354	25.508		3.214		2.966		-		2.966	Continuing	Continuing	N/A
<b>Support (\$ in Millions)</b>				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Matrix Support	MIPR	C5ISR (RTI) : FT BELVOIR, VA	2.013	0.475	Jul 2023	0.155	Dec 2023	0.160	Dec 2024	-		0.160	Continuing	Continuing	-
<b>Subtotal</b>			2.013	0.475		0.155		0.160		-		0.160	Continuing	Continuing	N/A
<b>Project Cost Totals</b>			14.065	26.696		3.729		3.507		-		3.507	Continuing	Continuing	N/A
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Army</b>			<b>Date: March 2024</b>		
<b>Appropriation/Budget Activity</b> 2040 / 4		<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>		<b>Project (Number/Name)</b> VT7 / <i>Soldier Maneuver Sensors - Adv Dev</i>	

Event Name	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Soldier Enhanced Sensing Capabilities																												
	<b>Development</b>																											

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> VT7 / <i>Soldier Maneuver Sensors - Adv Dev</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Soldier Enhanced Sensing Capabilities	1	2019	4	2029

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army										<b>Date:</b> March 2024		
<b>Appropriation/Budget Activity</b> 2040 / 4					<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>				<b>Project (Number/Name)</b> VT8 / <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>			
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
VT8: <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>	-	1.970	2.011	2.014	-	2.014	2.016	2.037	2.060	2.081	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

This project enables development of emerging technologies for the Fires community, that are envisioned by the Fires Center of Excellence (FCoE), the Fires Capabilities Development and Integration Directorate (FCDID), the Science and Technology (S&T) community, industry partners and the acquisition workforce that provide the Fire Support Soldier increased capability and reduced weight to improve operational effectiveness. This project focuses on developing component technologies and representative prototype systems for Soldier portable precision targeting devices to continue improvements to system performance while reducing size, weight, and power required by those systems. The effort will consider emerging Micro-Electronic Modules (MEMs) technologies for improved efficiency and performance. Efforts will improve the Soldier's ability to precisely locate and laser designate targets across a broader range of operating environments, including all weather conditions and in GPS-contested environments using active and passive methods and technologies. Component technology development will precede integration into specific systems and will include improved Precision Azimuth and Vertical Angle Measurement (PAVAM) devices; solid-state, improved lasers for range finding/designation/marketing; novel passive target acquisition methods; electro-optical sensors such as infrared, near-infrared, ultra-violet, and visible spectrum imagers; sensor and data fusion; laser designator spot detection and imaging; integration of advanced power management technologies, and GPS military-code (M-Code) receivers. Funding in this project aligns with Army's priorities in support of the National Defense Strategy.

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

	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
<b>Title:</b> Precision Pointing and Navigation Component Development	1.970	2.011	2.014
<b>Description:</b> This project supports development of advanced components and prototype systems for Soldier-borne precision targeting devices. Dismounted Soldiers will have the capability to rapidly acquire, accurately locate, positively identify, and precisely designate targets and battlefield threats 24/7, across a broader range of operating environments such as in all weather conditions, in GPS-contested conditions using active and passive methodologies and technologies.			
<b>FY 2024 Plans:</b> FY 2024 resources will continue the development and initiate testing of component technologies and mature sub-system integration for PAVAM devices to achieve reduced size, weight and power. These resources will also continue to develop technologies that allow precision targeting systems to operate in GPS-contested environments.			
<b>FY 2025 Plans:</b>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2025 Army		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> VT8 / <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>
FY 2025 resources will continue the development and initiate testing of component technologies and mature sub-system integration for PAVAM devices to achieve reduced size, weight and power. These resources will also continue to develop technologies that allow precision targeting systems to operate in GPS-contested environments.			
<b><i>FY 2024 to FY 2025 Increase/Decrease Statement:</i></b> FY 2024 to FY 2025 funding increase represents minor increase due to economic assumptions.			
<b>Accomplishments/Planned Programs Subtotals</b>	1.970	2.011	2.014

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>FY 2028</b>	<b>FY 2029</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• L79: <i>Joint Effects Targeting Systems (JETS)</i>	11.401	24.165	20.013	-	20.013	6.499	5.912	5.977	6.037	0.000	80.004
• K32101: <i>JOINT EFFECTS TARGETING SYSTEM (JETS)</i>	2.576	8.932	9.345	-	9.345	69.134	69.802	69.867	70.560	0.000	300.216

**Remarks**

**D. Acquisition Strategy**

The various developmental programs in this project continue to exercise competitively awarded contracts using best value source selection procedures.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army												Date: March 2024			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
2040 / 4				PE 0603774A / Night Vision Systems Advanced Development				VT8 / SOLDIER PRECISION TARGETING DEVICES - ADV DEV							
Management Services (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Program Management	MIPR	Various : Various	0.356	0.191	May 2023	0.244	Dec 2023	0.251	Dec 2024	-		0.251	Continuing	Continuing	-
<b>Subtotal</b>			0.356	0.191		0.244		0.251		-		0.251	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Precision Pointing and Navigation	C/FFP	Various : Various	5.327	1.436	Sep 2023	1.491	Jan 2024	1.483	Mar 2025	-		1.483	Continuing	Continuing	-
<b>Subtotal</b>			5.327	1.436		1.491		1.483		-		1.483	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Matrix Support	MIPR	C5ISR (RTI) : Ft. Belvoir, VA 22060	0.136	0.042	Apr 2023	0.026	Dec 2023	0.030	Dec 2024	-		0.030	Continuing	Continuing	-
Science and Engineering Support	SS/CPFF	Johns Hopkins University : Laurel, MD	0.700	0.250	Sep 2023	0.250	Jan 2024	0.250	Jan 2025	-		0.250	Continuing	Continuing	-
<b>Subtotal</b>			0.836	0.292		0.276		0.280		-		0.280	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 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
Government Testing	MIPR	Various : Various	-	0.051	May 2023	-		-		-		-	0.000	0.051	-
<b>Subtotal</b>			-	0.051		-		-		-		-	0.000	0.051	N/A

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2025 Army</b>							<b>Date: March 2024</b>				
<b>Appropriation/Budget Activity</b> 2040 / 4			<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>				<b>Project (Number/Name)</b> VT8 / <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>				
	<b>Prior Years</b>	<b>FY 2023</b>	<b>FY 2024</b>		<b>FY 2025 Base</b>	<b>FY 2025 OCO</b>	<b>FY 2025 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>	
<b>Project Cost Totals</b>	6.519	1.970	2.011		2.014	-	2.014	Continuing	Continuing	N/A	

**Remarks**  
 Cost elements may contain multiple awards. In such cases, the latest award date is listed.

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<b>Exhibit R-4, RDT&amp;E Schedule Profile: PB 2025 Army</b>			<b>Date: March 2024</b>		
<b>Appropriation/Budget Activity</b> 2040 / 4		<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>		<b>Project (Number/Name)</b> VT8 / <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>	

Event Name	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Precision Pointing and Navigation Development																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2025 Army		<b>Date:</b> March 2024
<b>Appropriation/Budget Activity</b> 2040 / 4	<b>R-1 Program Element (Number/Name)</b> PE 0603774A / <i>Night Vision Systems Advanced Development</i>	<b>Project (Number/Name)</b> VT8 / <i>SOLDIER PRECISION TARGETING DEVICES - ADV DEV</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Precision Pointing and Navigation Development	3	2020	4	2030