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Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army **Date:** April 2022

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0607313A / <i>Electronic Warfare Development</i>
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	-	-	5.673	6.432	-	6.432	6.524	5.802	5.803	5.860	0.000	36.094
CE2: <i>Prophet</i>	-	-	5.673	6.432	-	6.432	6.524	5.802	5.803	5.860	0.000	36.094

A. Mission Description and Budget Item Justification

This Program Element encompasses operational system development for tactical Electronic Warfare (EW) terrestrial (ground) employment applications. The systems under this program provide the Army with the capability to detect, identify, locate, collect/process, report, and engage (disrupt, degrade or deny) hostile forces to prevent their effective use of communications & non-communications networks, counter-mortar/counter-battery radars, surveillance radars, electronically fused munitions and other enemy threats using the Electro-Magnetic Spectrum (EMS). Prophet enables integration, interoperability and force modernization with emerging capabilities in support of Multi-Domain Task Forces.

FY 2023 funding in the amount of \$6.432M funds the Prophet Enhanced efforts (Project CE2). Project CE2 supports the Prophet Enhanced Program of Record, the Army's current terrestrial Signals Intelligence (SIGINT) system. Funding provides for development of relevancy efforts for state-of-the-art SIGINT exploitation to pace near peer and emerging enemy threat signals as well as engineering to mitigate component obsolescence. The primary mission of the Prophet Enhanced effort is to provide 24-hour Situation Development and Information Superiority to the supported maneuver brigade enabling the most effective engagement of enemy forces. Prophet Enhanced provides a modular, scalable, open architecture based system solution optimized for ease of use in a variety of configurations.

B. Program Change Summary (\$ in Millions)

	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023 Base</u>	<u>FY 2023 OCO</u>	<u>FY 2023 Total</u>
Previous President's Budget	0.000	5.673	0.000	-	0.000
Current President's Budget	0.000	5.673	6.432	-	6.432
Total Adjustments	0.000	0.000	6.432	-	6.432
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	6.432	-	6.432

Change Summary Explanation

FY 2023 funding increase reflects the fact that the FY 2022 President's Budget request did not include out-year funding.

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Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0607313A / <i>Electronic Warfare Development</i>				Project (Number/Name) CE2 / <i>Prophet</i>			
COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
CE2: <i>Prophet</i>	-	-	5.673	6.432	-	6.432	6.524	5.802	5.803	5.860	0.000	36.094
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project CE2 supports the Prophet Enhanced Program of Record, the Army's current fielded terrestrial Signals Intelligence (SIGINT) system. Funds provide for development and integration of signal of interest Technical Insertion engineering for Next Generation Signals and state-of-the-art SIGINT exploitation techniques to increase the capabilities of Prophet Enhanced, enabling the system to pace near peer and emerging enemy threat signals. Additionally funds provide for efforts to include, but not limited to engineering, development and testing to mitigate component obsolescence. The Prophet Enhanced is the tactical commander's organic ground-based SIGINT/Electronic Warfare system for the Multi-Function Teams (MfTs) organic to the Brigade Combat Teams (BCTs) and Expeditionary-Military Intelligence Brigades (E-MIBs). Its primary mission is to provide 24-hour Situation Development and Information Superiority to the supported maneuver brigade to enable the most effective engagement of enemy forces. Prophet Enhanced provides a modular, scalable, open architecture-based system solution optimized for ease of use in a variety of configurations. It also incorporates product modification, integration, evaluation and demonstration events of equipment for rapid integration of Technical Insertions (TI) and product development to ensure operational relevance.

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

	FY 2021	FY 2022	FY 2023
Title: Program Management	-	0.567	0.696
Description: Engineering, technical and programmatic oversight of the development of next generation signals.			
FY 2022 Plans: Funds will provide for matrix and contractor system engineering and program management support for the Prophet program.			
FY 2023 Plans: Funds will provide for continued matrix and contractor system engineering and program management support for the Prophet program.			
FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 level of effort anticipated to remain stable; cost increase is due to inflation and historical outlay rates			
Title: Signal of Interest upgrades	-	2.553	2.868
Description: The Signal Environment that Prophet Systems exploit is constantly contested with evolving threats. This environment creates gaps in Prophet's ability to collect and exploit these signals. Prophet must integrate the latest emerging Intelligence Community (IC), commercial solutions and capabilities from other sources to remain relevant against these numerous, key, and high-priority emerging threats.			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2021	FY 2022	FY 2023
<p>FY 2022 Plans: Development and integration of Next Generation SIGINT capabilities into the Prophet SIGINT Software (PS2). The new signals and libraries of signals address key exploitation gaps in the Prophet system's ability to collect against key tactical near peer signals and emerging threats.</p> <p>FY 2023 Plans: Continuing development and integration of Next Generation SIGINT capabilities into the Prophet SIGINT Software (PS2). The new signals and libraries of signals address key exploitation gaps in the Prophet system's ability to collect against key tactical near peer signals and emerging threats.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 increase due to necessity to conduct Customer Testing associated with the Signal of Interest upgrades in order to maintain the system's material release.</p>			
<p>Title: Componnet Obsolescence Engineering</p> <p>Description: Due to the highly technical nature of Prophet Enhanced, over the course of time, many components on the system are no longer produced or supported, which necessitates non-recurring engineering (NRE) to integrate and incorporate new and replacement parts.</p> <p>FY 2022 Plans: Including, but not limited to the obsolescence engineering for components on the Prophet Enhanced systems.</p> <p>FY 2023 Plans: Continuing obsolescence engineering for components on the Prophet Enhanced systems.</p> <p>FY 2022 to FY 2023 Increase/Decrease Statement: FY 2023 increase due to necessity to conduct Customer Testing associated with the results from the obsolescence engineering in order to maintain the system's material release.</p>	-	2.553	2.868
Accomplishments/Planned Programs Subtotals	-	5.673	6.432

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
• BZ9751: <i>SPECIAL PURPOSE SYSTEMS</i>	11.479	3.739	4.224	-	4.224	4.254	6.823	6.844	6.841	0.000	44.204

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

<u>Line Item</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>FY 2023</u> <u>Base</u>	<u>FY 2023</u> <u>OCO</u>	<u>FY 2023</u> <u>Total</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

The Prophet Research and Development (R&D) Acquisition Strategy is structured to maintain operational relevancy of Prophet Enhanced systems in a dynamic threat environment while reducing risk and streamlining business and engineering processes. Contracting activities are to maintain SIGINT relevance and complete Technical Insertion (TI) to Prophet Enhanced systems to pursue the latest Signals of Interest and design against obsolescence. The Technical Insertion (TI) contract supports R&D and other developmental work.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army **Date:** April 2022

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Management Services (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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	C/Various	PM Electronic Warfare & Cyber : APG, MD	-	-		0.365	Feb 2022	0.696	Nov 2022	-		0.696	0.000	1.061	-
Subtotal			-	-		0.365		0.696		-		0.696	0.000	1.061	N/A

Remarks
Efforts will be accomplished via a combination of Matrixed Government Support as well Systems Engineering and Technical Assistance (SETA) via competitive contract #W15P7T-10-D-D421.

Product Development (\$ in Millions)				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 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			
Signal of Interest Upgrades	SS/CPFF	GD Mission Systems and Various Supporting Organizations : Scottsdale, AZ	-	-		2.654	Dec 2021	2.868	Dec 2022	-		2.868	0.000	5.522	-
Component Obsolescence Engineering	SS/CPFF	GD Mission Systems and Various Supporting Organizations : Scottsdale, AZ	-	-		2.654	May 2022	2.868	Dec 2022	-		2.868	0.000	5.522	-
Subtotal			-	-		5.308		5.736		-		5.736	0.000	11.044	N/A

Remarks
Efforts will be accomplished contract # W56KGY-17-D-0006 to ensure systems remain relevant against emerging enemy threat signals and that any components of the system that become obsolete or are no longer produced can be re-engineered.

	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	5.673	6.432	-	6.432	0.000	12.105	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army			Date: April 2022
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Event Name	FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
	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
Prophet Enhanced Technical Insertion																												
Customer Testing (2021)																												
Customer Testing (2023)																												
Customer Testing (2025)																												
Prophet Enhanced modification and fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Prophet Enhanced Technical Insertion	1	2020	3	2028
Customer Testing (2021)	2	2021	3	2021
Customer Testing (2023)	2	2023	3	2023
Customer Testing (2025)	2	2025	3	2025
Prophet Enhanced modification and fielding	3	2017	4	2021