Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0303032A *I TROJAN - RH12*

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	-	3.761	3.879	3.930	-	3.930	3.930	3.930	3.930	3.930	Continuing	Continuing
RH5: *TROJAN - RH12*	-	3.761	3.879	3.930	-	3.930	3.930	3.930	3.930	3.930	Continuing	Continuing

A. Mission Description and Budget Item Justification

Trojan research and development supports Trojan Next Generation (Trojan NexGEN), formerly Trojan Classic XXI (TCXXI), future capabilities to fulfill the Army's need for worldwide, deployable, remotable, intelligence, surveillance and reconnaissance support that can dynamically execute operations from sanctuary-based to deployed assets in theater. In support of Army Modernization and Army Force Generation, Trojan NexGEN will provide soldiers with a real-world, hands-on, live and near-real time Signals Intelligence (SIGINT) training environment sustaining, maintaining and enhancing their military occupational specialty proficiencies and specific target expertise. This operational readiness training will fulfill the Army's larger intelligence training requirement via a secure, collaborative architecture.

A key factor for future force success is the ability to collect, process, and use information about an adversary while preventing similar information from being disclosed. Trojan NexGEN is a combined operational and readiness mission system which uses advanced networking technology to provide seamless rapid radio relay, secure communications to include voice, data, and electronic reconnaissance support to U.S. forces throughout the world. Trojan NexGEN operations may be easily tailored to fit military intelligence unit training schedules and surged during specific events to involve every aspect of the tactical intelligence collection, processing, analysis and reporting systems. Engineers test and evaluate new digital intelligence collection, processing and dissemination technology using the fielded Trojan NexGEN systems prior to the acquisition of those technologies. As part of the objective intelligence architecture, these capabilities will enable processing and dissemination of real-time intelligence data from various sources to form the intelligence needed to issue orders inside the threat decision cycle. To that end, it is imperative that Trojan NexGEN keeps pace with digitization initiatives in order to respond aggressively to the emerging intelligence communication threat.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	3.761	3.879	3.922	-	3.922
Current President's Budget	3.761	3.879	3.930	-	3.930
Total Adjustments	0.000	0.000	0.008	-	0.008
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	0.008	-	0.008

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Army	Date: March 2024
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 5: *System Development & Demonstration (SDD)*	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*

Change Summary Explanation

Increase is consistent with the planned lifecycle of this effort.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0303032A / *TROJAN - RH12*	Project (Number/Name) RH5 / *TROJAN - RH12*	

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
RH5: *TROJAN - RH12*	-	3.761	3.879	3.930	-	3.930	3.930	3.930	3.930	3.930	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

TROJAN research and development supports TROJAN Next Generation (TROJAN NexGEN), formerly TROJAN Classic XXI (TCXXI), future capabilities to fulfill the Army's need for worldwide, deployable, remotable, intelligence, surveillance and reconnaissance support that can dynamically execute operations from sanctuary-based to deployed assets in theater. In support of Army Modernization and Army Force Generation, TROJAN NexGEN will provide soldiers with a real-world, hands-on, live and near-real time SIGINT training environment sustaining, maintaining and enhancing their military occupational specialty proficiencies and specific target expertise. This operational readiness training will fulfill the Army's larger intelligence training requirement via a secure, collaborative architecture.

A key factor for future force success is the ability to collect, process, and use information about an adversary while preventing similar information from being disclosed. TROJAN NexGEN is a combined operational and readiness mission system which uses advanced networking technology to provide seamless rapid radio relay, secure communications to include voice, data, and electronic reconnaissance support to U.S. forces throughout the world. TROJAN NexGEN operations may be easily tailored to fit military intelligence unit training schedules and surged during specific events to involve every aspect of the tactical intelligence collection, processing, analysis and reporting systems. Engineers test and evaluate new digital intelligence collection, processing and dissemination technology using the fielded TROJAN NexGEN systems prior to the acquisition of those technologies. As part of the objective intelligence architecture, these capabilities will enable processing and dissemination of real-time intelligence data from various sources to form the intelligence needed to issue orders inside the threat decision cycle. To that end, it is imperative that TROJAN NexGEN keeps pace with digitization initiatives in order to respond aggressively to the emerging intelligence communication threat.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Integrate Direction Finding and geo-location	1.200	1.253	1.291
Description: Integrate Direction Finding (DF) and geolocation (GL) technologies into TROJAN Remote Receiving Groups. ***FY 2024 Plans:*** Will continuously adapt/improve the latest Direction Finding (DF) and geolocation technologies for integration into TROJAN NexGEN systems in accordance with Joint Interface Control Document (JICD) 4.2., and JICD 4.2 ELINT (JEL). Will utilize field based risk reduction exercises to test and evaluate integrated technologies of the overall TROJAN Intelligence, Surveillance, and Reconnaissance (ISR) Enterprise. Will continue to research and test for the integration of Electronics Intelligence (ELINT) capabilities. Will resource labor for one MAT DEV technologist, two MAT DEV software engineers and two MAT DEV HW engineers accounted for in the Integrate Direction Finding (DF) and geolocation (GL) project. ***FY 2025 Plans:*** Will continuously adapt/improve the latest Direction Finding (DF) and geolocation technologies for integration into TROJAN NexGEN systems in accordance with Joint Interface Control Document (JICD) 4.2., and JICD 4.2 ELINT (JEL). Will utilize field			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*	**Project (Number/Name)** RH5 / *TROJAN - RH12*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
based risk reduction exercises to test and evaluate integrated technologies of the overall TROJAN Intelligence, Surveillance, and Reconnaissance (ISR) Enterprise. Will continue to research and test for the integration of Electronics Intelligence (ELINT) capabilities. Will resource labor for one MAT DEV technologist, two MAT DEV software engineers and two MAT DEV HW engineers accounted for in the Integrate Direction Finding (DF) and geolocation (GL) project. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding changes reflect planned lifecycle of this effort.			
Title: Enable assured communications for the TROJAN Network architecture (formerly Improve security of the TROJAN Network architecture). ***Description:*** Acquire and apply multi-bandwidth compression algorithm technology to maximize TROJAN intelligence network throughput. ***FY 2024 Plans:*** Will continue ongoing effort of transitioning Government off the shelf (GOTS) / Commercial of the shelf (COTS) solutions enabling communication in an anti-access/area denial environment to TROJAN production systems. Will continue to research, evaluate, integrate and test with technologies to enable redundant communications paths and anti-jam technologies based current threats. ***FY 2025 Plans:*** Will continue ongoing effort of transitioning Government off the shelf (GOTS) / Commercial of the shelf (COTS) solutions enabling communication in an anti-access/area denial environment to TROJAN production systems. Will continue cyber security efforts to obtain authority to operate on Army networks. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease reflects alignment of funding to support cyber security efforts.	0.300	0.300	0.243
Title: Integrate and test specialized hardware/software ***Description:*** Integrate and test specialized hardware/software for classified pre-processing of new signals of interest utilizing enhanced signal processing algorithms. Resource development of GLAIVE software (SW). Integrated several new National Security Agency (NSA) SW packages. ***FY 2024 Plans:*** Will continue integration and testing of specialized hardware/software for classified pre-processing and detection of new signals of interest. Will continue to resource development, integration and testing of GOTS/COTS software. Will continue efforts to develop TROJAN Intelligence Surveillance Reconnaissance enterprise. Will continue efforts to integrate JICD 4.2 across all platforms.	1.161	1.196	1.232

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*	**Project (Number/Name)** RH5 / *TROJAN - RH12*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Migration of NexGEN Family of system capabilities from rack based servers and receivers to a C5ISR/EW Modular Open-Source Suite of Standards (CMOSS) configuration to reduce system Size Weight and Power (SWaP). ***FY 2025 Plans:*** Will continue integration and testing of specialized hardware/software for classified pre-processing and detection of new signals of interest. Will continue to resource development, integration and testing of GOTS/COTS software. Will continue efforts to develop TROJAN Intelligence Surveillance Reconnaissance enterprise. Will continue efforts to integrate JICD 4.2 across all platforms. Migration of NexGEN Family of system capabilities from rack based servers and receivers to a C5ISR/EW Modular Open-Source Suite of Standards (CMOSS) configuration to reduce system Size Weight and Power (SWaP). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding changes reflect planned lifecycle of this effort.			
Title: Research and testing of receivers ***Description:*** Research and testing of receiver packages for fixed and transportable TROJAN systems to acquire non-standard modulations using Digital System Processing (DSP) and Software Defined Radio (SDR) technologies. ***FY 2024 Plans:*** Will continue research and testing of receiver packages for fixed and transportable TROJAN systems to detect and process non-standard modulations using DSP and SDRs. Will integrate receiver packages to enable additional and wideband frequency ranges for COTS/GOTS Software Defined Radios. Will continue to utilize COTS/GOTS hardware and software frameworks to enable multiple SDRs to cooperate on a common backplane; which also includes DSP processing framework (Photon), receiver hardware resource manager, and single user interface application. ***FY 2025 Plans:*** Will continue research and testing of receiver packages for fixed and transportable TROJAN systems to detect and process non-standard modulations using DSP and SDRs. Will integrate receiver packages to enable additional and wideband frequency ranges for COTS/GOTS Software Defined Radios. Will continue to utilize COTS/GOTS hardware and software frameworks to enable multiple SDRs to cooperate on a common backplane; which also includes DSP processing framework (Photon), receiver hardware resource manager, and single user interface application. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding changes reflect planned lifecycle of this effort.	1.100	1.130	1.164
Accomplishments/Planned Programs Subtotals	3.761	3.879	3.930

Exhibit R-2A, RDT&E Project Justification: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*	**Project (Number/Name)** RH5 / *TROJAN - RH12*

C. Other Program Funding Summary ($ in Millions)

Line Item	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
• BA0326: *TROJAN*	20.562	30.649	39.344	-	39.344	55.965	67.045	67.175	69.624	0.000	350.364

Remarks

D. Acquisition Strategy

The Acquisition Strategy for the TROJAN NexGEN Systems supported by TROJAN RDT&E is to adapt and leverage from Commercial Off the Shelf (COTS) and Government Off the Shelf (GOTS) products. Additionally, the Acquisition Strategy leverages off of development by DoD and other Government agencies to the greatest extent possible. TROJAN RDT&E is used to fund the development of enhancing these technologies to meet specific user requirements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Army			Date: March 2024
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0303032A / *TROJAN - RH12*	Project (Number/Name) RH5 / *TROJAN - RH12*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integrate Direction Finding and geo-location	Various	APG : MD	9.362	1.200	Oct 2022	1.253	Oct 2023	1.291	Oct 2024	-		1.291	Continuing	Continuing	-
Enable assured communications for the TROJAN Network Architecture	Various	APG : MD	8.442	0.300	Oct 2022	0.300	Oct 2023	0.243	Oct 2024	-		0.243	Continuing	Continuing	-
Research and testing of Receivers	Various	APG : MD	4.750	1.100	Oct 2022	1.130	Oct 2023	1.164	Oct 2024	-		1.164	Continuing	Continuing	-
		Subtotal	22.554	2.600		2.683		2.698		-		2.698	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration and Testing of Hardware/Software	Various	APG : MD	9.345	1.161	Oct 2022	1.196	Oct 2023	1.232	Oct 2024	-		1.232	0.000	12.934	Continuing
		Subtotal	9.345	1.161		1.196		1.232		-		1.232	0.000	12.934	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
Project Cost Totals	31.899	3.761		3.879		3.930		-		3.930	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*	**Project (Number/Name)** RH5 / *TROJAN - RH12*

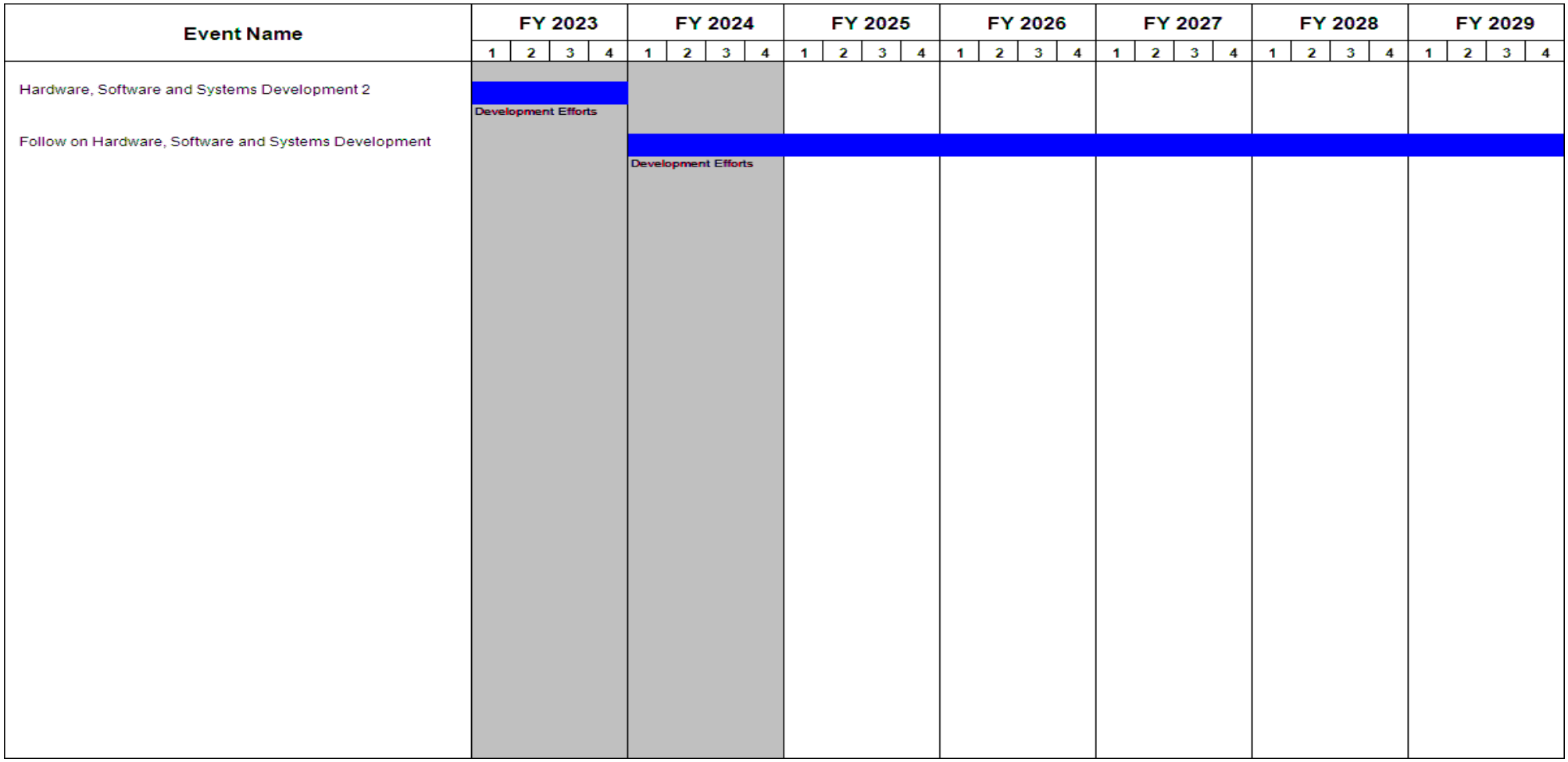

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Army		Date: March 2024
Appropriation/Budget Activity 2040 / 5	**R-1 Program Element (Number/Name)** PE 0303032A / *TROJAN - RH12*	**Project (Number/Name)** RH5 / *TROJAN - RH12*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Hardware, Software and Systems Development	1	2014	4	2018
Hardware, Software and Systems Development 2	1	2019	4	2023
Follow on Hardware, Software and Systems Development	1	2024	4	2029