Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army											Date: April 2022	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0607137A *I Chinook Product Improvement Program*							
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	-	49.409	67.872	52.513	-	52.513	9.461	5.027	13.140	9.105	Continuing	Continuing
ES4: *Chinook Product Improvement Program*	-	49.409	67.872	52.513	-	52.513	9.461	5.027	13.140	9.105	Continuing	Continuing
Program MDAP/MAIS Code: 577												

A. Mission Description and Budget Item Justification

Program Element (PE) 0607137A Chinook Product Improvement Program is critical to achieving the Army's heavy lift Joint All Domain Operational capability. With an increased payload and operational reach, the CH-47F Block II is the only platform that can lift the JLTV, M777 and medium girder bridge to enable Joint All Domain Forces to Compete, Penetrate, Disintegrate, and Exploit at operationally relevant distances.

The CH-47F Block II acquisition program upgrades existing CH-47F aircraft and procures common hardware that exists between the CH-47F and MH-47G aircraft for Special Operations Forces. The CH-47F Block II program reduces O&S costs and provides additional capability to the field with greater reach, increased payload capability and an increase in maximum gross weight to 54,000 pounds. CH-47F Block II upgrades include a strengthened airframe which introduces commonality with the MH-47G and improvements to rotor, fuel, and electrical systems which will improve safety and reliability for the aircraft. The program updates the Common Avionics Architecture System (CAAS) and Digital Advanced Flight Control System (DAFCS) software packages of the aircraft, and incorporates other avionics changes introduced into the final CH-47F production lots. Along with providing a significantly increased capability to the field, the program includes provisions for anticipated future upgrades as well as weight and cost savings initiatives to ensure the Army has a platform with the flexibility and performance needed to meet the needs of Joint All Domain Operations.

The Cargo Project Management Office awarded the CH-47F Engineering and Manufacturing Development (EMD) contract in July 2017. The EMD phase produced three production representative test articles to support an acquisition decision. This phase will include contractor and government led system level qualification testing. The contractor led system level qualification testing includes both ground and flight test. The system level qualification testing includes Electromagnetic Environmental Effects (E3), operation assessments, and aircraft subsystem Live-Fire Test and Evaluation (LFTE). On 27 September 2021, the Army provided direction to remove Advanced Chinook Rotor Blade (ACRB) from the CH-47F Block II system configuration, and replace them with the currently fielded Fiberglass Rotor Blades (FRB).

Exhibit R-2, RDT&E Budget Item Justification: PB 2023 Army	Date: April 2022
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0607137A *I Chinook Product Improvement Program*

B. Program Change Summary ($ in Millions)	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total
Previous President's Budget	49.409	52.372	0.000	-	0.000
Current President's Budget	49.409	67.872	52.513	-	52.513
Total Adjustments	0.000	15.500	52.513	-	52.513
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	15.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	52.513	-	52.513

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2021	FY 2022
Project: ES4: *Chinook Product Improvement Program*		
Congressional Add: *Program increase - carbon composite materials for helicopter wheels and brakes*	5.000	-
Congressional Add: *Program increase - Lightweight Ballistic Protection System*	-	8.000
Congressional Add: *Program increase - CH-47 Engine Enhancement*	-	7.500
Congressional Add Subtotals for Project: ES4	5.000	15.500
Congressional Add Totals for all Projects	5.000	15.500

Change Summary Explanation

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

FY 2021 Congressional Add of $5.000 million for carbon composite materials for helicopter wheels and brakes was received on 26 January 2022.

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0607137A / *Chinook Product Improvement Program*	Project (Number/Name) ES4 / *Chinook Product Improvement Program*	

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
ES4: *Chinook Product Improvement Program*	-	49.409	67.872	52.513	-	52.513	9.461	5.027	13.140	9.105	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Program Element (PE) 0607137A Chinook Product Improvement Program is critical to achieving the Army's heavy lift Joint All Domain Operational capability. With an increased payload and operational reach, the CH-47F Block II is the only platform that can lift the JLTV, M777 and medium girder bridge to enable Joint All Domain Forces to Compete, Penetrate, Disintegrate, and Exploit at operationally relevant distances.

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The Cargo Project Management Office awarded the CH-47F Engineering and Manufacturing Development (EMD) contract in July 2017. The EMD phase produced three production representative test articles to support an acquisition decision. This phase will include contractor and government led system level qualification testing. The contractor led system level qualification testing includes both ground and flight test. The system level qualification testing includes Electromagnetic Environmental Effects (E3), operational assessments, and aircraft subsystem Live-Fire Test and Evaluation (LFTE). On 27 September 2021, the Army provided direction to remove Advanced Chinook Rotor Blade (ACRB) from the CH-47F Block II system configuration, and replace them with the currently fielded Fiberglass Rotor Blades (FRB).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Title: CH-47F Block II Engineering and Manufacturing Development (EMD)	20.957	22.169	15.451
Description: Conduct and support aircraft development, complete assembly and deliver three EMD test articles to include airframe components, Improved Drive Train (IDT), rotor components, light weight fuel system, electrical components and the currently fielded Fiberglass Rotor Blade (FRB). Complete fabrication, assembly, initial functional checks of the Ground Test Vehicle (GTV) and remote control system (RCS), conduct GTV test operations, functional testing of the CH-47F Block II systems, Test Readiness Review (TRR) for EMD ground and flight testing. Release EMD flight test software. Begin contractor led system level ground and flight testing. Deliver documentation that demonstrates requirements verification and production configuration			

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
baseline. Continue Integrated Logistics Support (ILS) and Integrated Contractor Supply (ICS) support for initial flight test activities. Shut down all ACRB efforts and terminate the associated contracts. ***FY 2022 Plans:*** Continue flight test operations in support of EMD system level qualification and initiate post flight test reporting requirements. Receipt and disposition of contract requirements to include test reports, qualification by similarity (QBS), Integrated Logistics Support (ILS) and Integrated Contractor Supply (ICS) deliverables, and delivery of Production Configuration Baseline. Shut down all ACRB efforts and terminate the associated contracts. ***FY 2023 Plans:*** Continue development of EMD flight test analysis and reporting deliverables in support of System Verification Review (SVR), system qualification, and an Army production decision. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY2023 decrease of $6.718 million reflects a transition from engineering test support to data analysis, report writing, and requirement verification activities.			
Title: Matrix and Contractor Support ***Description:*** This funding provides support costs for various government agencies, contractor support and matrix organizations supporting the Block II Engineering and Manufacturing Development (EMD) program with systems engineering, test support, airworthiness certification, project management, general engineering, logistics and business support. ***FY 2022 Plans:*** Continues funding support costs for various government agencies, contractor support, and other matrix organizations supporting the Block II EMD program. ***FY 2023 Plans:*** Continues funding support costs for various government agencies, contractor support, and other matrix organizations supporting Block II EMD program. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** FY2023 decrease of $0.297 million aligns support requirement for the approved developmental activities and aircraft qualification.	5.026	5.841	5.544
Title: Advanced Chinook Rotor Blade (ACRB) ***Description:*** This effort designs, develops and performs contractor led component qualification for an improved rotor blade capability. This capability significantly increases lift capability, improves reliability, and is a form, fit replacement for the current blade, which will enable payload restoration to the ground force commander. Conduct additional flight testing to reduce risk for	9.217	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Engineering and Manufacturing Development (EMD) and validate Computational Fluid Dynamics (CFD) and Computational Structural Dynamics (CSD) models. On 27 September 2021, the Army provided direction to remove Advanced Chinook Rotor Blades (ACRB) from the CH-47F Block II system configuration, and replace them with the currently fielded Fiberglass Rotor Blades (FRB). The activities required to shut down all ACRB efforts, terminate the associated contracts, and complete the requirement and verification updates resulting from this system configuration change will occur within the EMD and System Support subprogram elements.			
Title: Testing and Evaluation	9.209	9.421	14.674
Description: This effort supports component and system level testing to qualify design improvements in the airframe, fuel system, avionics, drive train, and rotor subsystem. Block II improvements will be validated through component endurance, testing of IDT, IRS, Live Fire Test and Evaluation (LFTE), Electromagnetic Environmental Effects (E3), future developmental, and operational test activities. ***FY 2022 Plans:*** Increase in funding is required to perform system level testing to address qualification of the new CH-47F Block II FRB configuration. This will require added flight testing in the disciplines of performance, structural strength, and handling qualities of the aircraft. Further flight testing is required to increase data set on aircraft components in order to improve aircraft operational availability and reduce life cycle maintenance costs. Conduct stress and environmental testing of the program?s Ferrium C61 Steel components, which are deemed a critical technology. Continue live fire test and evaluation. Conduct Common Avionics Architecture System (CAAS) software testing, in both laboratory and flight test environments, to support an operational assessment. Plan for future developmental, operational, and cyber test activities. ***FY 2023 Plans:*** Continues system level testing on the CH-47 Block II FRB configuration to support system qualification and assessment of mitigations implemented to address technical challenges discovered during previous EMD phase testing events. Conduct Common Avionics Architecture System (CAAS) and Digital Advanced Flight Control System (DAFCS) software testing, in both laboratory and flight test environments, to support government acceptance of production aircraft. Plan for future developmental, operational, and cyber test activities. Conduct CH-47F Block II Operational Assessment and satisfy new program requirement to conduct Live Fire, Phase III testing of the Fiberglass Rotor Blades (FRB). ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2023 increase of $5.253 million reflects a ramp up for system level testing, CH-47F Block II Operational Assessment, and Live Fire, Phase III testing of the Fiberglass Rotor Blades (FRB).			
Title: System Support	-	13.029	16.844

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Description: Conduct design, system engineering, fabrication, and Integrated Logistics Support (ILS) in support of production-aircraft configuration, corrective hardware and software actions that are required to address technical challenges identified in the EMD phase. Conduct requirements update and verification efforts resulting from CH-47F Block II system configuration change from ACRB to FRB. Support test efforts to improve production aircraft operational availability and reduce maintenance costs. Conduct and support modifications of production aircraft and other test assets to support component and system level testing events, as well as corrective hardware and software actions that are required to address technical challenges identified during testing of the production aircraft. Release Digital Advanced Flight Control System (DAFCS) software in support of improved system handling qualities. Perform system level verification and validation of production aircraft configuration in preparation for future operational testing. Deliver documentation in support of a material release to support system fielding. ***FY 2022 Plans:*** Begin the requirement and verification updates resulting from CH-47F Block II system configuration change from ACRB to FRB. Begin engineering support and implementation of mitigations for technical challenges discovered during EMD phase testing events, to include improving ballistic protection of electrical and fuel system and improving sound protection for passenger area. Conduct development of pilot mission planning software to support future operational assessment. Begin development of Digital Advanced Flight Control System (DAFCS) software in support of improved system handling qualities. ***FY 2023 Plans:*** Continue the requirement and verification updates resulting from CH-47F Block II system configuration change from ACRB to FRB. Continue engineering support and implementation of mitigations for technical challenges discovered during EMD phase testing events. Initiate system level verification and validation of production aircraft configuration in preparation for future operational testing. Complete development of Digital Advanced Flight Control System (DAFCS) software in support of improved system handling qualities. Complete hardware and software modifications to include software integration laboratories (SIL) in order to support production-aircraft configuration software testing. Pursue incorporation of Modular Open Systems Architecture (MOSA) into aircraft systems. ***FY 2022 to FY 2023 Increase/Decrease Statement:*** The FY 2023 increase $3.795 million is due to an increase in technical mitigation engineering efforts resulting from the end of qualification flight testing to include system engineering, corrective hardware and software.			
Title: SBIR/STTR ***FY 2022 Plans:*** FY22 SBIR/STTR Transfer ***FY 2022 to FY 2023 Increase/Decrease Statement:***	-	1.912	-

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2021	FY 2022	FY 2023
Increase of $1.912M for FY22 SBIR/STTR Transfer.			
Accomplishments/Planned Programs Subtotals	44.409	52.372	52.513

	FY 2021	FY 2022
Congressional Add: Program increase - carbon composite materials for helicopter wheels and brakes ***FY 2021 Accomplishments:*** Carbon Composite materials for helicopter wheels and brakes	5.000	-
Congressional Add: Program increase - Lightweight Ballistic Protection System ***FY 2022 Plans:*** Congressional increase for Lightweight Ballistics Protection System	-	8.000
Congressional Add: Program increase - CH-47 Engine Enhancement ***FY 2022 Plans:*** Congressional increase for CH-47 Engine Enhancement.	-	7.500
Congressional Adds Subtotals	5.000	15.500

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
• A05105: *CH-47 SLEP*	368.122	333.677	187.898	-	187.898	199.116	201.179	206.447	205.694	Continuing	Continuing
• A05008: *CH-47 NEW BUILD*	50.472	-	0.000	-	0.000	-	-	-	-	0.000	50.472

Remarks

FY 2020 A05008 OCO is for Army Common MH-47G New Build War Replacement Aircraft Block II procurement.
FY 2021 A05008 OCO is for CH-47F New Build War Replacement Aircraft procurement.
FY 2020 A05105 All Funding is for Army Common MH-47G RENEW Block II procurement.
FY 2021 A05105 Funding is for 6 Army Common MH-47G RENEW Block II procurement.
FY 2021 A05105 Funding is for 4 CH-47F RENEW Block II procurement.
FY 2022 A05105 Funding is for 6 Army Common MH-47G RENEW Block II procurement.
FY 2023 A05105 Funding is for 6 Army Common MH-47G RENEW Block II procurement

D. Acquisition Strategy

Consolidated separate engineering change proposals into a single Block II upgrade to the CH-47F Block I. Current CH-47F Block I aircraft will enter into SLEP program to increase maximum gross weight to 54,000 pounds. The CH-47F Block II program provides additional benefits to increase commonality and interoperability between the two platforms, improve design life, lower maintenance cost, enhance reliability, safety, airworthiness, and cybersecurity. The CH-47F Block II program restores

Exhibit R-2A, RDT&E Project Justification: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

payload lost through mission equipment package (MEP) growth and enhances flight control systems, while providing the most effective procurement alternative to maintain heavy lift capability and reduce Operation and Support (O&S) costs.

Quantity of RDT&E Articles:
FY 2018 - Awarded: 1 - Ground Test Vehicle (GTV), 2 - CH-47F Block II Prototypes
FY 2019 - Awarded: 1 - CH-47F Block II Prototype

FY 2019 - Delivered: 1 - GTV, 2 - CH-47F Block II Prototypes
FY 2020 - Delivered: 1 - CH-47F Block II Prototype

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0607137A / *Chinook Product Improvement Program*	Project (Number/Name) ES4 / *Chinook Product Improvement Program*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY22 SBIR/STTR	TBD	To Be Determined : To Be Determined	-	-		1.912	Mar 2022	-		-		-	0.000	1.912	-
		Subtotal	-	-		1.912		-		-		-	0.000	1.912	N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Manufacturing Development (EMD)	SS/CPIF	Boeing Ridley : Park, PA	329.403	20.957	Jun 2021	22.169	Nov 2021	15.451	Nov 2022	-		15.451	Continuing	Continuing	Continuing
Advanced Chinook Rotor Blade (ACRB)	SS/CPFF	Boeing Ridley : Park PA	67.694	9.217	Jul 2021	-		-		-		-	0.000	76.911	-
Improved Drive Train (IDT)	SS/CPFF	Boeing Ridley : Park, PA	53.062	-		-		-		-		-	0.000	53.062	-
Transportable Flight Proficienct Simulator (TFPS)	MIPR	NAVAIR : Patuxent River NAS, MD	23.215	-		-		-		-		-	0.000	23.215	-
System Support	TBD	To Be Determined : To Be Determined	-	-		13.029	Mar 2022	16.844	Jun 2023	-		16.844	0.000	29.873	-
Congressional Add Program Increase CH-47 Engine Enhancement	TBD	To Be Determined : To Be Determined	-	-		7.500	Aug 2022	-		-		-	0.000	7.500	-
Congressional Add Program Increase Block II Lightweight Improvements	TBD	To Be Determined : To Be Determined	6.500	-		8.000	Aug 2022	-		-		-	0.000	14.500	-
FY 2019 NDAA SEC 825 MDAP Cost Overrun	Allot	To Be Determined : To Be Determined	0.020	-		-		-		-		-	0.000	0.020	-
Congressional Add Program Increase Expandable Rotorcraft Diagnostics	TBD	To Be Determined : To Be Determined	3.300	-		-		-		-		-	0.000	3.300	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Army			Date: April 2022
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Congressional Add Program Increase Carbon Composite Wheel	TBD	TBD : TBD	-	5.000	Jul 2022	-		-		-		-	0.000	5.000	-
		Subtotal	483.194	35.174		50.698		32.295		-		32.295	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	Various	Various Government and contractor : RSA & Huntsville, AL, Aberdeen Proving Ground MD,	29.185	5.026	Oct 2020	5.841	Oct 2021	5.544	Oct 2022	-		5.544	Continuing	Continuing	Continuing
		Subtotal	29.185	5.026		5.841		5.544		-		5.544	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2021 Cost	FY 2021 Award Date	FY 2022 Cost	FY 2022 Award Date	FY 2023 Base Cost	FY 2023 Base Award Date	FY 2023 OCO Cost	FY 2023 OCO Award Date	FY 2023 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Testing and Evaluation	Various	Boeing Ridley : Park PA and Various Government	50.630	9.209	Dec 2020	9.421	Nov 2021	14.674	Nov 2022	-		14.674	Continuing	Continuing	Continuing
		Subtotal	50.630	9.209		9.421		14.674		-		14.674	Continuing	Continuing	N/A

	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	563.009	49.409		67.872		52.513		-		52.513	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2023 Army		Date: April 2022
Appropriation/Budget Activity 2040 / 7	**R-1 Program Element (Number/Name)** PE 0607137A / *Chinook Product Improvement Program*	**Project (Number/Name)** ES4 / *Chinook Product Improvement Program*

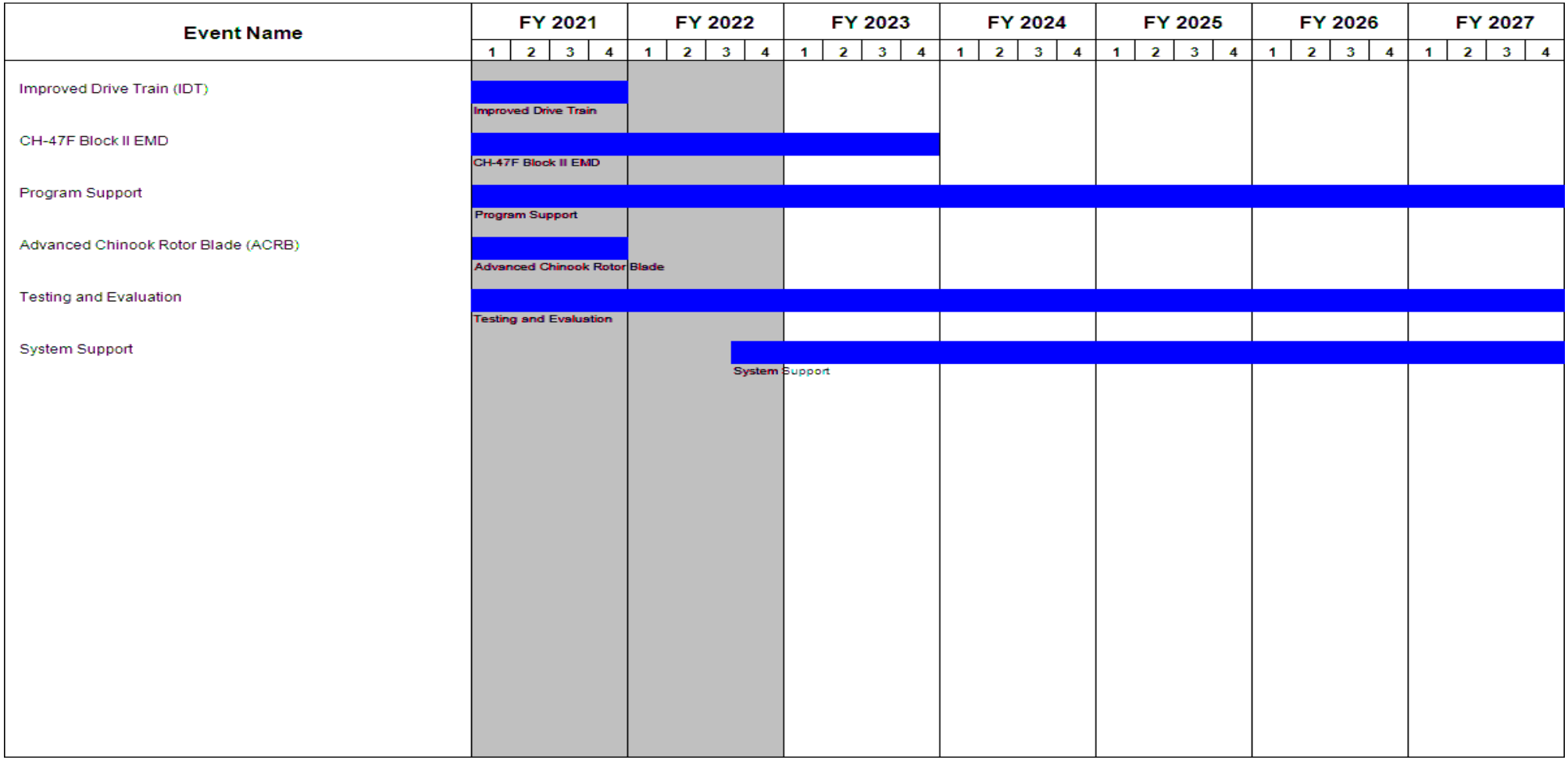

Exhibit R-4A, RDT&E Schedule Details: PB 2023 Army		Date: April 2022
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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Improved Drive Train (IDT)	3	2014	4	2021
Transportable Flight Proficiency Simulator (TFPS)	2	2018	4	2020
Milestone B	3	2017	3	2017
CH-47F Block II EMD	4	2017	4	2023
Program Support	1	2017	1	2028
Advanced Chinook Rotor Blade (ACRB)	1	2011	4	2021
Testing and Evaluation	3	2015	1	2028
System Support	3	2022	1	2028