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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 0604319A / <i>Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	10.324	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.324
DU3: <i>IFPC2</i>	-	10.324	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.324

Program MDAP/MAIS Code: Pre

A. Mission Description and Budget Item Justification

The Expanded Mission Area Missile (EMAM) program supports the Integrated Air and Missile Defense (IAMD) architecture and provides Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) the kinetic intercept capability to defeat Cruise Missiles (CM), Unmanned Aircraft System (UAS), and Rocket, Artillery, and Mortar (RAM) threats.

The IFPC Inc 2 will provide a ground-based weapon system designed to acquire, track, engage, and defeat the CM, UAS, and RAM threats. The IFPC Inc 2 requirement consists of a launcher, integrated fire control, sensor, and an interceptor to support the Threshold CM and UAS defeat mission and Objective counter-RAM mission with alternative kinetic and non-kinetic defeat solutions.

EMAM is no longer acting as a separate program. EMAM will be incorporated into the IFPC Inc 2 program as a potential primary interceptor for the future Enduring IFPC Inc 2 system and provide kinetic intercept capability to defeat CM, UAS and RAM threats. EMAM is now known as the IFPC Inc 2 Interceptor with strategy and funding combined with the IFPC Inc 2 program beginning in Fiscal Year (FY) 2020. The IFPC Inc 2 systems will be integrated with the Army IAMD Command and Control (C2) architecture.

B. Program Change Summary (\$ in Millions)	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>
Previous President's Budget	40.979	0.000	0.000	-	0.000
Current President's Budget	10.324	0.000	0.000	-	0.000
Total Adjustments	-30.655	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-30.655	-			
• SBIR/STTR Transfer	-	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Army										Date: February 2020		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0604319A / <i>Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)</i>					Project (Number/Name) DU3 / <i>IFPC2</i>		
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
DU3: <i>IFPC2</i>	-	10.324	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	10.324
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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EMAM is no longer acting as a separate program. EMAM will be incorporated into the IFPC Inc 2 program as a potential primary interceptor for the future Enduring IFPC Inc 2 system and provide kinetic intercept capability to defeat CM, UAS and RAM threats. EMAM is now known as the IFPC Inc 2 Interceptor with strategy and funding combined with the IFPC Inc 2 program beginning in Fiscal Year (FY) 2020. The IFPC Inc 2 systems will be integrated with the Army Integrated Air and Missile Defense (AIAMD) Command and Control (C2) architecture.

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

	FY 2019	FY 2020	FY 2021
Title: System Engineering & Program Management (SEPM)	3.065	-	-
Description: Funding is provided for systems engineering, integration, logistics engineering, system test and management efforts.			
Title: Engineering and Technical Support	1.265	-	-
Description: Funding is provided for engineering and technical support for the design of system hardware, software, and integration requirements.			
Title: System/Subsystem Development and Integration	5.631	-	-
Description: Funding is provided for hardware and software integration activities, technical assessments, concept studies, and integration and risk reduction.			
Title: System/Subsystem Developmental Testing	0.363	-	-

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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604319A / <i>Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)</i>	Project (Number/Name) DU3 / <i>IFPC2</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
Description: Funding is provided for developmental testing activities, modeling and simulation test activities, and cyber security test activities.			
Accomplishments/Planned Programs Subtotals	10.324	-	-

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

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u> <u>Base</u>	<u>FY 2021</u> <u>OCO</u>	<u>FY 2021</u> <u>Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• C62002: <i>IFPC INC 2- I BLOCK 1 SYSTEM</i>	31.286	9.337	106.261	-	106.261	237.803	392.134	368.447	274.566	0.000	1,419.834

Remarks

This program is an integral part of the Army Integrated Air and Missile Defense (IAMD) architecture.

D. Acquisition Strategy

The IFPC Inc 2 Product Office (PO) will verify technology readiness of missile alternatives in FY 2018 and will select one or more missiles to proceed in FY 2019. The PO will continue missile development, integration, and test to support Milestone B in 1 Quarter (Q) FY 2020. The program will conduct Engineering and Manufacturing Development through the end of FY 2022, Milestone C in 1Q FY 2023, and Initial Operational Test & Evaluation in FY 2023.

Formal selection is pending IAW with the senior Army leadership decision point for the Enduring IFPC Inc 2 program.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0604319A / Indirect Fire Protection Capability Increment 2-Intercept (IFPC2)	Project (Number/Name) DU3 / IFPC2
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Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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 Admin (IFPC Base System)	MIPR	Cruise Missile Defense Systems Project Office : Huntsville, Alabama	28.644	-		-		-		-		-	0.000	28.644	-
Program Management Admin	Various	Multiple Activities : Redstone Arsenal, Alabama	4.471	3.065	Oct 2018	-		-		-		-	0.000	7.536	-
Subtotal			33.115	3.065		-		-		-		-	0.000	36.180	N/A

Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
System Engineering & Integration (IFPC Base System)	MIPR	Cruise Missile Defense Systems Project Office : Huntsville, AL	54.463	-		-		-		-		-	0.000	54.463	-
System Engineering & Integration	Various	Multiple Activities : Huntsville, AL	1.600	3.210	Oct 2018	-		-		-		-	0.000	4.810	-
Engineering and Technical Support (IFPC Base System)	MIPR	Multiple Activities : Multiple Locations	140.824	-		-		-		-		-	0.000	140.824	-
Engineering and Technical Support	Various	Multiple Activities : Multiple Locations	0.200	1.265	Oct 2018	-		-		-		-	0.000	1.465	-
System/Subsystem Development and Integration (IFPC Base System)	MIPR	Multiple Activities : Multiple Locations	120.035	-		-		-		-		-	0.000	120.035	-
System/Subsystem Development and Integration	C/CPFF	TBD : Multiple Locations	4.191	2.421	Feb 2019	-		-		-		-	0.000	6.612	-
Subtotal			321.313	6.896		-		-		-		-	0.000	328.209	N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Army		Date: February 2020
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Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
EMAM Program Decision (Design Review 1)	1																											
	EMAM Program Decision																											
EMAM Integration & Testing																												
	Integration & Testing																											
IFPC Inc 2 Interceptor Pre-MS B Activities																												
	Pre-MS B Activities																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Army		Date: February 2020
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Expanded Mission Area Missile (EMAM) Decision Brief	1	2017	1	2017
EMAM Program Decision (Design Review 1)	1	2019	1	2019
EMAM Integration & Testing	4	2018	4	2019
EMAM Materiel Development Decision (MDD)	4	2017	4	2017
IFPC Inc 2 Interceptor Pre-MS B Activities	1	2018	4	2019