Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0604319A: Indirect Fire Protection Capability Increment 2

BA 4: Advanced Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	0.000	76.039	79.232	-	79.232	107.587	146.463	151.769	159.700	Continuing (Continuing
DU3: IFPC2	-	0.000	76.039	79.232	-	79.232	107.587	146.463	151.769	159.700	Continuing (Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

Indirect Fire Protection Capability Increment 2 (IFPC2) established a new Program Element (PE) 0604319A for its RDTE program.

Previous PE/Project/Title: 0603305A/TR7 Army Missile Defense Systems Integration/TR7 Indirect Fire Protection Capability II-Intercept

Current PE/Project/Title: 0604319A/DU3 Indirect Fire Protection Capability Increment 2/ DU3 IFPC2

Please note the following:

- 1) The funding in FY 2011-12 is shown in PE 0603305A and
- 2) The funding in FY 2013-17 is shown in PE 0604319A.

A. Mission Description and Budget Item Justification

This program supports the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against Cruise Missiles (CM), Unmanned Aircraft System (UAS) and Rocket, Artillery, and Mortar (RAM) threats for deployed forces. The Indirect Fire Protection Capability Increment 2 - Intercept (IFPC Inc 2-I) is a ground-based weapon system that will be designed to acquire, track, engage, and defeat UAS, CM, and RAM. The System will provide 360-degree protection and will simultaneously engage threats arriving from different azimuths. A block acquisition approach will be used to provide this capability. The Block 1 system will consist of an existing interceptor and sensor and development of technical fire control and a Multi-Mission Launcher (MML) to support the UAS and CM mission. The Block 2 system will develop interceptors, sensors, and technical fire control to support the counter RAM mission. The IFPC Inc 2-I System will be compatible with the Army Integrated Air and Missile Defense (IAMD) C2 architecture. The IFPC Inc 2-I System will be transportable by Army common mobile platforms.

^{***} The FY 2014 OCO Request will be submitted at a later date

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

R-1 ITEM NOMENCLATURE

PE 0604319A: Indirect Fire Protection Capability Increment 2

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	0.000	76.039	109.046	-	109.046
Current President's Budget	0.000	76.039	79.232	-	79.232
Total Adjustments	0.000	0.000	-29.814	-	-29.814
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
Reprogrammings	-	-			
 SBIR/STTR Transfer 	-	-			
 Adjustments to Budget Years 	-	-	-29.814	-	-29.814

EXHIBIT K-ZA, KDT&E PTOJECT J	uStillCation	. PD 2014 F	AIIIIY							DATE. Apr	11 2013	
APPROPRIATION/BUDGET AC	TIVITY				R-1 ITEM	NOMENCL	ATURE		PROJECT			
2040: Research, Development, 7	est & Evalu	ation, Army			PE 060431	19A: Indirec	t Fire Proted	ction	DU3: IFPC	2		
BA 4: Advanced Component Dev	elopment &	Prototypes	(ACD&P)		Capability	Increment 2	2					
COST (\$ in Millions)	All Prior Years		FY 2013 [#]	FY 2014 Base	FY 2014 OCO ##	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
DU3: IFPC2	100.0	0.000				79.232					Continuing C	
Quantity of RDT&E Articles		0.000	70.000	19.202		19.232	107.307	140.403	131.703	133.700	Continuing	Jonana
Quantity of No I & Articles												

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Exhibit P 2A PDT8 E Project Justification: DR 2014 Army

Note

Indirect Fire Protection Capability Increment 2 - Intercept (IFPC2) established a new Program Element (PE) 0604319A for its RDTE program.

Previous PE/Project/Title: 0603305A/TR7 Army Missile Defense Systems Integration/TR7 Indirect Fire Protection Capability II-Intercept

Current PE/Project/Title: 0604319A/DU3 Indirect Fire Protection Capability Increment 2/ DU3 IFPC2

Please note the following:

- 1) The funding in FY 2011-12 is shown in PE 0603305A and
- 2) The funding in FY 2013-17 is shown in PE 0604319A

A. Mission Description and Budget Item Justification

This program supports the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against Cruise Missiles (CM), Unmanned Aircraft System (UAS) and Rocket, Artillery, and Mortar (RAM) threats for deployed forces. The Indirect Fire Protection Capability Increment 2 - Intercept (IFPC Inc 2-I) is a ground-based weapon system that will be designed to acquire, track, engage, and defeat UAS, CM, and RAM. The System will provide 360-degree protection and will simultaneously engage threats arriving from different azimuths. A block acquisition approach will be used to provide this capability. The Block 1 system will consist of an existing interceptor and sensor and development of technical fire control and a Multi-Mission Launcher (MML) to support the UAS and CM mission. The Block 2 system will develop interceptors, sensors, and technical fire control to support the counter RAM mission. The IFPC Inc 2-I System will be compatible with the Army Integrated Air and Missile Defense (IAMD) C2 architecture. The IFPC Inc 2-I System will be transportable by Army common mobile platforms.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Indirect Fire Protection Capability Increment 2 - Intercept (IFPC Inc 2-I) System Engineering & Program Management	0.000	22.843	9.500
Articles:		0	
Description: Funding is provided for the following Government effort:			
FY 2013 Plans: - Perform system engineering, logistics studies, analysis and design and business management activities			

PE 0604319A: Indirect Fire Protection Capability Increment 2 Army

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R-1 Line #74

DATE: April 2013

^{***} The FY 2014 OCO Request will be submitted at a later date

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604319A: Indirect Fire Protection Capability Increment 2	PROJ DU3:	ECT IFPC2		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantit	ies in Each)		FY 2012	FY 2013	FY 2014
 Conduct program reviews Prepare milestone documentation Conduct milestone review Continue to provide technical support for AOA ecursion Perform technical assessments, concept studies, cost reduction, risk rec 	duction, and required documentation				
FY 2014 Plans: - Initiate Technology Development (TD) phase activities - Perform system engineering, logistics engineering, system test and eval business management activities - Conduct system and program reviews - Perform technical assessments, concept studies, cost reduction, risk recommendations.					
Title: IFPC Inc 2-I Engineering & Technical Support		Articles:	0.000	6.000 0	5.55
Description: Funding is provided for the following Government effort:					
FY 2013 Plans: - Provided engineering and technical support for development of system is requirements and definition - Integrate design refinements from Science and Technology effort into system in program reviews - Provide technical support for milestone documentation and decision reviews - Perform technical assessments, concept studies, cost reduction, risk recommendation.	vstem baseline design				
FY 2014 Plans: - Continue engineering and technical support for development of system is requirements and definition - Continued integration of design refinements from Science and Technolo design - Participate in system and program reviews - Perform technical assessments, concept studies, cost reduction, risk recommendations.	gy effort into system baseline				
Title: IFPC Inc 2-I System/Subsystem Development and Integration		Articles:	0.000	47.196 0	64.17

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PE 0604319A: Indirect Fire Protection Capability Increment 2
Army

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R-1 Line #74

Exhibit R-2A, RDT&E Project Justin	fication: DR	2014 Army	,			,			DATE: /	April 2013	
APPROPRIATION/BUDGET ACTIVI 2040: Research, Development, Test BA 4: Advanced Component Develop	TY & Evaluation,	Army	0& <i>P</i>)	PE 06	EM NOMEN 04319A: Ind pility Increme	irect Fire Pro	otection	PROJ DU3:		φπ 2013	
B. Accomplishments/Planned Prog	grams (\$ in N	Millions, Art	icle Quantit	ies in Each	1				FY 2012	FY 2013	FY 2014
Description: Funding is provided for	the following	g Governme	nt effort								
FY 2013 Plans: - Support completion of system/subs: - Initiate system/subsystem hardwardevelopment activities - Initiate development of Multi-Missional Participate in system and program: - Support milestone documentational Procure prototype long lead material Initiate fabrication and integration of Initiate fabrication of prototype Posible Perform technical assessments, continue system component hardward Participate in system and program: - Fabricate, integrate system/subsystem Continue development of technical Perform technical assessments, continue development of technical	e, software a on Launcher reviews and decision al and items development t-Milestone A oncept studies ware, software reviews stem prototyp data packag	review of prototype s, cost reduce e and integrates	on design an ata Package components ction, risk recation design	s Pre-Milesto duction, and and develop	required doo	ies					
r errerin teerinineal deceesinente, ee	moopt otaalo	o, 000(10uu)	<u> </u>		· ·		rograms Su	btotals	0.000	76.039	79.23
C. Other Program Funding Summa Line Item PE 0604869A, Proj M06: Patriot/	FY 2012 377.610	ons) FY 2013 400.861	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 20	17 FY 2018	Cost To Complete 0.000	Total Cos
MEADS Combined Aggregate Program (CAP) • PE 0605456A, Proj PA3: PAC-3/ MSE MISSILE	86.139	69.029	68.843		68.843	129.627	63.506	65.17		Continuing	
 SSN C53101: MSE Missile PE 0102419A, Proj E55: JLENS PE 0605455A, Proj S35: SLAMRAAM 	74.953 317.382 1.186	12.850 190.422	540.401 98.450		540.401 98.450	540.520 46.600	559.623 47.450	566.75 37.83		Continuing Continuing 0.000	Continuin

PE 0604319A: Indirect Fire Protection Capability Increment 2 Army

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R-1 Line #74

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
2040: Research, Development, Test & Evaluation, Army	PE 0604319A: Indirect Fire Protection	DU3: IFPC	2
BA 4: Advanced Component Development & Prototypes (ACD&P)	Capability Increment 2		

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

	- • • • • • • • • • • • • • • • • • • •	,	FY 2014	FY 2014	FY 2014					Cost To	
Line Item	FY 2012	FY 2013	Base	OCO	<u>Total</u>	FY 2015	FY 2016	FY 2017	FY 2018	Complete	Total Cost
• PE0603305A, Proj TR7: Indirect	8.834									0.000	8.834
Fire Protection Capability -II											
• PE 0605457A, Proj S40: Army	262.032	262.211	364.649		364.649	382.869	221.306	141.908	79.338	Continuing	Continuing
Integrated Air and Missile Defense											
(AIAMD)											
SSN BZ5075: Army IAMD Battle			21.200		21.200	100.700	315.370	482.640	446.130	Continuing	Continuing
Command System (IBCS)											
• PE 0604820A, Proj E10:	3.093	3.486	1.549		1.549	5.264	5.911	6.307	6.053	Continuing	Continuing
SENTINEL											
• PE 654741, Proj 126, 146, 149,:	57.050	73.333	18.294		18.294	20.898	20.557	18.009	11.015	Continuing	Continuing
Air Defense C2I Eng Dev											

Remarks

This program supports the Army Integrated Air and Missile Defense (IAMD) architecture.

D. Acquisition Strategy

The Materiel Development Decision (MDD) was completed in fourth quarter FY 2011, allowing for the initiation of an Analysis of Alternatives (AoA) to determine materiel solution approach; establishment of requirement baseline; initiation of development of required Milestone documents and execution of the Milestone decision to authorize proceeding into the next phase of development in FY 2013.

The Government plans to send funding to the Aviation and Missile Research Development and Engineering Center (AMRDEC) for the development and demonstration of the MML. The Government also plans to send funding to the Letterkenney Army Depot (LEAD) for the development and testing of the Multi-Mission Launcher (MML). An Analsyis will be performed to determine production of the MML.

No new contracts will be awarded in support of the development of IFPC Inc 2-I Block I effort. The Government will use existing contracts and work performed by other Government agencies. Additional work will be performed by the Aviation and Missile Research, Development and Engineering Center (AMRDEC) and Letterkenny Army Depot (LEAD) through funding provided to those organizations by the IFPC Inc 2-I Product Office. The Government will use the following contracts:

- The Navy's PMA-259 contract will be used to develop and integrate the Technical Fire Control (TFC) and IFPC Inc 2-I Block I Interceptor uplink. This contract will also be used to procure test missiles to support the Technology Development (TD) and Engineering and Manufacturing Development (EMD) phases.
- The Army's FAAD Command and Control (C2) contract will be used to support development, test, and integration of the IFPC Inc 2-I Block I Interceptor with the FAAD C2 and the Multi-Mission Launcher (MML).

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0604319A: Indirect Fire Protection	DU3: IFPC2
BA 4: Advanced Component Development & Prototypes (ACD&P)	Capability Increment 2	
- The Army's IBCS contract will be used to support development, test, ar	nd integration of the IFPC Inc 2-I Block I Intercept	tor with the IBCS and the MML.
- The Army's Sentinel contract will be used to incorporate sensor softwar	re upgrades to enhance detection of low radar cre	oss section (RCS) and slow moving targets.
E. Performance Metrics		
Performance metrics used in the preparation of this justification material	may be found in the FY 2010 Army Performance	Budget Justification Book, dated May 2010.

PE 0604319A: Indirect Fire Protection Capability Increment 2 Army

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

Aviation and Missile Research,

Development,

Engineering Center:Huntsville, AL

Multiple

0.000

MIPR

R-1 ITEM NOMENCLATURE

PE 0604319A: Indirect Fire Protection

Capability Increment 2

PROJECT

DU3: IFPC2

5.556 Continuing Continuing Continuing

	<i>p</i>			_ ,											
Management Servic	es (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba		FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value o Contra
Program Management Admin	MIPR	Cruise Missile Defense Systems Project Office:Huntsville, Alabama	0.000	-		-		3.962		-		3.962	Continuing	Continuing	Continui
		Subtotal	0.000	0.000		0.000		3.962		0.000		3.962			
Product Developme	nt (\$ in M	illions)		FY 2	2012	FY 2	2013	FY 2 Ba		FY 2		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value o Contra
System Engineering & Integration	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	0.000	-		22.843		9.500		-		9.500	Continuing	Continuing	Continui

Integration	MIPR	Activities:Multiple Locations	0.000	-		47.196		60.214	-		60.214	Continuing	Continuing	Continuing
		Subtotal	0.000	0.000		76.039		75.270	0.000)	75.270			
														Target
			All Prior					FY 2	014 FY	2014	FY 2014	Cost To	Total	Value of
			Years	FY 2	2012	FY 20	013	Ba	se C	CO	Total	Complete	Cost	Contract
		Project Cost Totals	0.000	0.000		76.039		79.232	0.000		79.232			

6.000 Apr 2013

5.556

Remarks

Support

Engineering and Technical

System/Subsystem

PE 0604319A: Indirect Fire Protection Capability Increment 2 Army

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 4: Advanced Component Development & Prototypes (ACD&P)

DATE: April 2013

R-1 ITEM NOMENCLATURE

PE 0604319A: Indirect Fire Protection
Capability Increment 2

		FY	201	2		FY	2013	3		FY	2014	4		FY	2015	5		FY	2016	;		FY	2017	7		FΥ	2018	3
	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
Block 1 Milestone A						,						·		,	·								·		·			
Block 1 Technology Development (TD) Phase																												-
Live Fire Demonstration																												
Block 1 Milestone B																												
Block 1 Engineering and Manufacturing (EMD) Phase																												J
Block 1 Milestone C																												

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army PE 0604319A: Indirect Fire Protection DU3: IFPC2

BA 4: Advanced Component Development & Prototypes (ACD&P) Capability Increment 2

Schedule Details

	Start		End	
Events	Quarter	Year	Quarter	Year
Block 1 Milestone A	4	2013	4	2013
Block 1 Technology Development (TD) Phase	1	2014	1	2016
Live Fire Demonstration	4	2015	4	2015
Block 1 Milestone B	2	2016	2	2016
Block 1 Engineering and Manufacturing (EMD) Phase	2	2016	3	2018
Block 1 Milestone C	4	2018	4	2018

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PROJECT