

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item 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							
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												
## The FY 2014 OCO Request will be submitted at a later date												
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.												

UNCLASSIFIED

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)					
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

UNCLASSIFIED

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				PROJECT DU3: IFPC2			
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
DU3: IFPC2	-	0.000	76.039	79.232	-	79.232	107.587	146.463	151.769	159.700	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
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												

UNCLASSIFIED

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	PROJECT DU3: IFPC2		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities 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 reduction, and required documentation FY 2014 Plans: - Initiate Technology Development (TD) phase activities - Perform system engineering, logistics engineering, system test and evaluation, technical control, and business management activities - Conduct system and program reviews - Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation					
Title: IFPC Inc 2-I Engineering & Technical Support Articles: Description: Funding is provided for the following Government effort: FY 2013 Plans: - Provided engineering and technical support for development of system hardware, software and integration requirements and definition - Integrate design refinements from Science and Technology effort into system baseline design - Participate in program reviews - Provide technical support for milestone documentation and decision review - Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation FY 2014 Plans: - Continue engineering and technical support for development of system hardware, software and integration requirements and definition - Continued integration of design refinements from Science and Technology effort into system baseline design - Participate in system and program reviews - Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation		0.000	6.000 0	5.556	
Title: IFPC Inc 2-I System/Subsystem Development and Integration Articles:		0.000	47.196 0	64.176	

UNCLASSIFIED

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				PROJECT DU3: IFPC2				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Description: Funding is provided for the following Government effort												
FY 2013 Plans: - Support completion of system/subsystem requirements definition - Initiate system/subsystem hardware, software and integration design and development activities - Initiate development of Multi-Mission Launcher Technical Data Package - Participate in system and program reviews - Support milestone documentation and decision review - Procure prototype long lead material and items - Initiate fabrication and integration development of prototype components Pre-Milestone A - Initiate fabrication of prototype Post-Milestone A - Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation												
FY 2014 Plans: - Continue system component hardware, software and integration design and development activities - Participate in system and program reviews - Fabricate, integrate system/subsystem prototypes - Continue development of technical data package - Perform technical assessments, concept studies, cost reduction, risk reduction, and required documentation												
Accomplishments/Planned Programs Subtotals										0.000	76.039	79.232
C. Other Program Funding Summary (\$ in Millions)												
Line Item	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	
• PE 0604869A, Proj M06: Patriot/ MEADS Combined Aggregate Program (CAP)	377.610	400.861								0.000	778.471	
• PE 0605456A, Proj PA3: PAC-3/ MSE MISSILE	86.139	69.029	68.843		68.843	129.627	63.506	65.179	65.734	Continuing	Continuing	
• SSN C53101: MSE Missile	74.953	12.850	540.401		540.401	540.520	559.623	566.757	655.184	Continuing	Continuing	
• PE 0102419A, Proj E55: JLENS	317.382	190.422	98.450		98.450	46.600	47.450	37.830	2.600	Continuing	Continuing	
• PE 0605455A, Proj S35: SLAMRAAM	1.186									0.000	1.186	

UNCLASSIFIED

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				PROJECT DU3: IFPC2			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• PE0603305A, Proj TR7: Indirect Fire Protection Capability -II	8.834									0.000	8.834
• PE 0605457A, Proj S40: Army Integrated Air and Missile Defense (AIAMD)	262.032	262.211	364.649		364.649	382.869	221.306	141.908	79.338	Continuing	Continuing
• SSN BZ5075: Army IAMD Battle Command System (IBCS)			21.200		21.200	100.700	315.370	482.640	446.130	Continuing	Continuing
• PE 0604820A, Proj E10: SENTINEL	3.093	3.486	1.549		1.549	5.264	5.911	6.307	6.053	Continuing	Continuing
• PE 654741, Proj 126, 146, 149,: Air Defense C2I Eng Dev	57.050	73.333	18.294		18.294	20.898	20.557	18.009	11.015	Continuing	Continuing
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 Analysis 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).											

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604319A: <i>Indirect Fire Protection Capability Increment 2</i>	PROJECT DU3: <i>IFPC2</i>
- The Army's IBCS contract will be used to support development, test, and integration of the IFPC Inc 2-I Block I Interceptor with the IBCS and the MML. - The Army's Sentinel contract will be used to incorporate sensor software upgrades to enhance detection of low radar cross section (RCS) and slow moving targets. <u>E. Performance Metrics</u> 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.		

UNCLASSIFIED

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)						R-1 ITEM NOMENCLATURE PE 0604319A: Indirect Fire Protection Capability Increment 2						PROJECT DU3: IFPC2			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		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 Complete	Total Cost	Target Value of Contract
Program Management Admin	MIPR	Cruise Missile Defense Systems Project Office:Huntsville, Alabama	0.000	-		-		3.962		-		3.962	Continuing	Continuing	Continuing
Subtotal			0.000	0.000		0.000		3.962		0.000		3.962			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		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 Complete	Total Cost	Target Value of Contract
System Engineering & Integration	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	0.000	-		22.843		9.500		-		9.500	Continuing	Continuing	Continuing
Engineering and Technical Support	MIPR	Aviation and Missile Research, Development, Engineering Center:Huntsville, AL	0.000	-		6.000	Apr 2013	5.556		-		5.556	Continuing	Continuing	Continuing
System/Subsystem Development and Integration	MIPR	Multiple 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			
Project Cost Totals			0.000	0.000		76.039		79.232		0.000		79.232			
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: 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				PROJECT DU3: IFPC2			

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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																												
Block 1 Milestone C																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604319A: <i>Indirect Fire Protection</i> <i>Capability Increment 2</i>	PROJECT DU3: <i>IFPC2</i>	

Schedule Details

Events	Start		End	
	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