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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army										Date: March 2019		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605052A I Indirect Fire Protection Capability Inc 2 - Block 1							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	156.361	132.283	243.228	-	243.228	101.000	58.000	45.000	5.000	0.000	740.872
EY7: IFPC Increment 2 - Block 1	-	156.361	132.283	243.228	-	243.228	101.000	58.000	45.000	5.000	0.000	740.872

Note

IFPC Inc 2 system development funding realigned from BA4, PE 0604319A/DU3 to BA5, PE 0605052A/EY7 beginning in FY 2017.

Expanded Mission Area Missile (EMAM) program funding realigned from BA4, PE 0604319A/DU3 to BA5, PE 0605052A/EY7 beginning in FY 2020 in support of enduring IFPC capability.

A. Mission Description and Budget Item Justification

The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher, integrated fire control, sensor, and an interceptor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.

In FY 2018, the Army evaluated alternative strategies to address an Army interim CM defense (CMD) capability at critical strategic fixed site locations while continuing the development of an enduring capability. As reported on 31 Oct 2018 the Army intends to field two interim IFPC batteries of Iron Dome in FY 2020, while concurrently componentizing a launcher and interceptor solutions that are interoperable and integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor by FY 2023. For each of the interim capability's Iron Dome Batteries, the Army intends to employ a configuration that matches the Israeli Firing Unit. Prior to making a final decision on the enduring solution, the Army plans to conduct experimentation and analysis with Army sensors and IBCS to determine the complexity of integration of the componentized launcher and interceptor solution. The final decision point, planned for 2QFY2020, will decide between a componentized Iron Dome launcher or a CMD launcher from industry for the enduring IFPC Inc 2 capability.

This budget request assumes approval of the 2019 Above Threshold Reprogramming request which aligns FY 2018 and FY 2019 funding to the plan provided in the IFPC Acquisition Strategy Report submitted to Congress.

FY 2020 Base dollars in the amount of \$243.228 million are designated for the integration and testing of the interim IFPC capability (\$74.645 million) and supporting development and integration of the componentized enduring IFPC Inc 2 system (\$168.583 million).

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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1			
B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	175.069	157.710	77.599	-	77.599
Current President's Budget	156.361	132.283	243.228	-	243.228
Total Adjustments	-18.708	-25.427	165.629	-	165.629
• Congressional General Reductions	-0.132	-0.164			
• Congressional Directed Reductions	-12.200	-25.263			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-6.376	-			
• Adjustments to Budget Years	-	-	165.629	-	165.629
Change Summary Explanation					
Funding decrease in FY 2018 of \$5.589 million for Small Business Innovative Research (SBIR), \$0.787 million for Small Business Technology Transfer Research (STTR), \$0.132 million for Federally Funded Research and Development Centers (FFRDC), and \$12.200 million from a Congressional Reduction for developmental testing early to need.					
Funding decrease in FY 2019 of \$0.164 million for Federally Funded Research and Development Centers (FFRDC), and \$25.263 million from a Congressional Reduction for developmental testing early to need.					
The FY 2020 increase of \$165.629 million supports the revised IFPC Acquisition Strategy outlined in the Report to Congress.					

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Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1				Project (Number/Name) EY7 / IFPC Increment 2 - Block 1			
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
EY7: IFPC Increment 2 - Block 1	-	156.361	132.283	243.228	-	243.228	101.000	58.000	45.000	5.000	0.000	740.872
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
IFPC Inc 2 system development funding realigned from BA4, PE 0604319A/DU3 to BA5, PE 0605052A/EY7 beginning in FY 2017.												
Expanded Mission Area Missile (EMAM) program funding realigned from BA4, PE 0604319A/DU3 to BA5, PE 0605052A/EY7 beginning in FY 2020.												
The project is supported by the Cross Functional Team (CFT), IFPC Inc 2.												
A. Mission Description and Budget Item Justification												
The Indirect Fire Protection Capability Increment 2 (IFPC Inc 2) will provide a ground-based weapon system designed to acquire, track, engage, and defeat Cruise Missiles (CM), Unmanned Aircraft Systems (UAS), and Rocket, Artillery, and Mortar (RAM) threats. The IFPC Inc 2 system consists of a launcher, integrated fire control, sensor, and an interceptor to support the Threshold CM and UAS defeat mission. The Objective counter-RAM mission employs both alternative kinetic and non-kinetic defeat solutions.												
In FY 2018, the Army evaluated alternative strategies to address an Army interim CM defense (CMD) capability at critical strategic fixed site locations while continuing the development of an enduring capability. As reported on 31 Oct 2018 the Army intends to field two interim IFPC batteries of Iron Dome in FY 2020, while concurrently componentizing a launcher and interceptor solutions that are interoperable and integrated with the Army Integrated Air and Missile Defense (AIAMD) open systems architecture, IAMD Battle Command System (IBCS), and the Sentinel sensor by FY 2023. For each of the interim capability's Iron Dome Batteries, the Army intends to employ a configuration that matches the Israeli Firing Unit. Prior to making a final decision on the enduring solution, the Army plans to conduct experimentation and analysis with Army sensors and IBCS to determine the complexity of integration of the componentized launcher and interceptor solution. The final decision point, planned for 2QFY2020, will decide between a componentized Iron Dome launcher or a CMD launcher from industry for the enduring IFPC Inc 2 capability.												
This budget request assumes approval of the 2019 Above Threshold Reprogramming request which aligns FY 2018 and FY 2019 funding to the plan provided in the IFPC Acquisition Strategy Report submitted to Congress.												
FY 2020 Base dollars in the amount of \$243.228 million are designated for the integration and testing of the interim IFPC capability (\$74.645 million) and supporting development and integration of the componentized enduring IFPC Inc 2 system (\$168.583 million).												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: IFPC Inc 2-I Block 1 MML Development, Integration, and Testing								128.861	-	-	-	-

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Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1	Project (Number/Name) EY7 / IFPC Increment 2 - Block 1				
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Description: Activities supporting the pre-EMD IFPC Inc 2-I Blk 1 launcher ceased in FY 2018							
Title: Interim IFPC Inc 2 Integration and Testing			27.500	91.963	74.645	-	74.645
Description: Funding is provided to support the assessment of operational utility and safety of the Iron Dome system as an Interim IFPC Inc 2 capability							
FY 2019 Plans: - Continue RDT&E efforts associated with Interim IFPC Inc 2 CMD system integration and testing - Continue system engineering and software development efforts to enable Interim IFPC Inc 2 Iron Dome system to interoperate with US systems utilizing a US external command and control system - Conduct review and analysis of prior Israeli Iron Dome Test events for applicability to US test requirements (Environmental tests, Electromagnetic Environmental Effects tests, Insensitive Munitions tests and assessments, Health Hazard tests, Functional Hazard Analysis, Explosive Hazard Classification tests, Hazardous Materials Assessment) for each major End Item and support vehicles of the system - Initiate Cyber Security Analysis activities to review and analyze available Israeli cybersecurity documentation and obtain Authority to Operate - Continue US hardware, software, and interface development and integration - Continue System Performance Assessment and Modeling and Simulation efforts - Perform system engineering, integration, logistics engineering, system test and evaluation management, technical configuration control, and business management activities - Conduct Risk Management activities - Perform logistics assessments to determine training requirements, fielding requirements, spares packages, and required documentation							
FY 2020 Base Plans: - Continue RDT&E efforts associated with Interim IFPC Inc 2 CMD system integration and testing - Continue system engineering and software development efforts to enable Interim IFPC Inc 2 Iron Dome system to interoperate with US systems utilizing a US external command and control system - Continue review and analysis of prior Israeli Iron Dome Test events for applicability to US test requirements (Environmental tests, Electromagnetic Environmental Effects tests, Insensitive Munitions tests and assessments, Health Hazard tests, Functional Hazard Analysis, Explosive Hazard Classification tests, Hazardous Materials Assessment) for each major End Item and support vehicles of the system - Continue Cyber Security Analysis activities to obtain Authority to Operate							

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
<div>- Conduct Safety Testing of Interim IFPC Inc 2 system</div> <div>- Conduct Performance Analysis and Testing of Interim IFPC Inc 2 system</div> <div>- Conduct Capabilities and Limitations Testing of Interim IFPC Inc 2 system</div> <div>- Continue US hardware, software, and interface development and integration</div> <div>- Continue System Performance Assessment and Modeling and Simulation efforts</div> <div>- Continue US hardware, software, and interface development and integration</div> <div>- Continue system engineering, integration, logistics engineering, system test and evaluation management, technical configuration control, and business management activities</div> <div>- Continue Risk Management activities</div> <div>- Continue logistics assessments to determine training requirements, fielding requirements, spares packages, and required documentation</div> <div>- Conduct Reliability Data Analysis (Operational Availability, Failure Reports, missile BIT results) for the system and each major End Item and support vehicle of the system</div> <div>- Conduct Verification and Validation of Training Support Package Materials for all system major End Items equipment and support vehicles of the system</div> <div>- Conduct CLS for test articles</div> <div>FY 2019 to FY 2020 Increase/Decrease Statement:</div> <div>Funding realigned IAW 31 Oct 2018 Report to Congress to integrate and support the determination of the operational utility and safety of the Iron Dome system as interim IFPC Inc 2 CMD</div>						
<div>Title: Enduring IFPC Inc 2 Integration and Testing</div> <div>Description: Funding is provided to support the development, integration, and testing of the Enduring IFPC Inc 2 capability</div> <div>FY 2019 Plans:</div> <div>- Continue RDT&E efforts associated with Enduring IFPC Inc 2 development</div> <div>- Observe USMC Iron Dome Missile Firing Unit (MFU) with Tamir interceptor experimentation with USMC CAC2S and USMC GATOR Radar</div> <div>- Conduct US Army Iron Dome Missile Firing Unit (MFU) with Tamir interceptor experimentation with IBCS and Sentinel Radar</div> <div>- Redesign of prototype launchers to support All-up Round Magazine development</div> <div>- Conduct All-up Round Magazine development and integration activities</div>		-	13.760	168.583	-	168.583

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
<div><div>- Perform system engineering, integration, logistics engineering, system test and evaluation management, technical configuration control, and business management activities</div><div>- Continue engineering and technical support of Enduring IFPC Inc 2 hardware, software and interface development and integration</div><div>- Perform technical assessments, concept studies, cost reduction, risk management, and required documentation determination</div></div> <div><div>FY 2020 Base Plans:</div><div>- Continue RDT&E efforts associated with Enduring IFPC Inc 2 development</div><div>- Conduct modified prototype launcher and interceptor All-up Round Magazine experimentation with IBCS and Sentinel Radar</div><div>- Initiate detailed design activities following the US Army final Decision Briefing for the IFPC Inc 2 system</div><div>- Conduct launcher componentization activities (Communications and Data Uplink)</div><div>- Conduct interceptor componentization (Weapons Interface Controller and Engagement Calculator software development)</div><div>- Perform system engineering, integration, logistics engineering, system test and evaluation management, technical configuration control, and business management activities</div><div>- Conduct Cybersecurity Analysis events (Cooperative Vulnerability Identification, Adversarial Cybersecurity Development Test & Evaluation, Interim Authority to Operate)</div><div>- Continue engineering and technical support of Enduring IFPC Inc 2 hardware, software and interface development and integration</div><div>- Perform technical assessments, concept studies, cost reduction, risk management, final design, and required documentation</div><div>- Award interceptor development,integration and test Other Transaction Authority (OTA)</div><div>- Complete interceptor hardware and software design</div><div>- Build Enduring IFPC interceptor prototypes</div><div>- Begin Enduring IFPC interceptor component qualification</div><div>- Begin Enduring IFPC interceptor qualification</div><div>- Begin Enduring IFPC interceptor model accredited</div><div>- Begin Enduring IFPC interceptor integration with launcher</div><div>- Begin Enduring IFPC interceptor Integration with mission command</div></div> <div><div>FY 2019 to FY 2020 Increase/Decrease Statement:</div></div>						

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B. Accomplishments/Planned Programs (\$ in Millions)							FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	
Funding realigned IAW 31 Oct 2018 Report to Congress to support Enduring IFPC development activities												
Title: ATR - Realign to PE 0604319A MIPA funding line FY 2019 Plans: - IAW 31 Oct 18 Report to Congress, IFPC has requested an Above Threshold Reprogramming action to realign \$20.900 million in FY 2019 funds from PE 0605052A/EY7 to be realigned to IFPC's PE 0604319A MIPA funding line to procure 2 Interim IFPC Iron Dome Batteries FY 2019 to FY 2020 Increase/Decrease Statement: Funding requested to be realigned IAW 31 Oct 2018 Report to Congress to procure 2 Iron Dome Batteries in support of Interim IFPC							-	20.900	-	-	-	
Title: FY 2019 SBIR / STTR Transfer FY 2019 Plans: FY 2019 SBIR / STTR Transfer FY 2019 to FY 2020 Increase/Decrease Statement: FY 2019 SBIR / STTR Transfer							-	5.660	-	-	-	
Accomplishments/Planned Programs Subtotals							156.361	132.283	243.228	-	243.228	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost	
• C53101: MSE Missile	1,103.040	1,131.276	0.000	736.541	736.541	767.495	749.530	999.731	898.131	793.430	7,179.174	
• EF9: System Integration and Test	69.558	77.188	107.746	-	107.746	111.080	121.308	37.186	40.999	0.000	565.065	
• EX2: Lower Tier Air Missile Defense (LTAMD) Capability	57.437	89.248	427.772	-	427.772	376.738	332.322	241.461	87.500	0.000	1,612.478	
• C50016: System Integration and Test Procurement	136.579	105.395	0.000	113.857	113.857	105.044	107.288	86.178	87.410	Continuing	Continuing	
• DU3: IFPC2	10.871	40.979	0.000	-	0.000	-	-	-	-	0.000	51.850	
• C62002: IFPC INC 2- I BLOCK 1 SYSTEM	-	31.286	0.000	9.337	9.337	241.387	446.464	424.568	446.541	0.000	1,599.583	
• C62001: IFPC Inc 2-I Block 1 Missile 1	50.056	145.636	0.000	-	0.000	-	-	-	-	0.000	195.692	

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Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1				Project (Number/Name) EY7 / IFPC Increment 2 - Block 1			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
• E10: Sentinel	31.651	39.289	105.243	-	105.243	103.427	105.394	65.574	69.407	0.000	519.985
• S40: Army Integrated Air and Missile Defense	339.051	322.263	208.938	-	208.938	130.859	63.738	33.193	94.845	0.000	1,192.887
• BZ5075: IAMD Battle Command System	-	-	29.629	-	29.629	254.834	353.929	417.426	413.775	Continuing	Continuing
• 0604741A: Air Defense Command, Control and Intelligence - Eng Dev	190.385	212.373	43.502	-	43.502	24.944	7.068	1.228	3.405	0.000	482.905
• AD5070: AIR & MSL Defense Planning & Control Sys	132.713	29.913	24.730	14.331	39.061	49.147	106.671	63.143	0.075	0.000	420.723
• C62005: IFPC INC 2-I Block 1 Missile 2	-	-	0.000	-	0.000	-	12.192	36.278	-	0.000	48.470
Remarks											
This program is an integral part of the Army Integrated Air and Missile Defense (AIAMD) architecture.											
D. Acquisition Strategy											
As reported on 31 Oct 2018 the Army intends to rapidly field an interim capability with the Israeli Iron Dome and an enduring capability of a launcher leveraging the Army Integrated Air and Missile Defense (AIAMD) open systems architecture and IAMD Battle Command System (IBCS) as the Fire Control component, US sensor (Sentinel), and the employment of a variety of missiles.											
In support of the Army's intent, a Directed Requirement to initiate procurement of the Israeli Iron Dome Missile System for an Interim IFPC CMD capability is being staffed for approval and IFPC has requested Above Threshold Reprogramming (ATR) actions to align funding in accordance with the Report to Congress. The ATR requested to repurpose \$27.500 million FY 2018 funds and \$91.963 million in FY 2019 funds from PE 0605052A/EY7 for Iron Dome experimentation and \$36.000 million in FY 2018 procurement funds from PE 0604319A MIPA to procure 240 Tamir (Iron Dome) missiles. The ATR requested \$31.286 million of FY 2019 PE 0604319A MIPA Advanced Procurement (originally for launcher long-lead items) and \$20.900 million from PE 0605052A/EY7 to be realigned to IFPC's PE 0604319A MIPA funding line, along with the current \$145.636 million from PE 0604319A MIPA to procure two interim Iron Dome batteries for assessment of operational utility under 10 U.S. code, paragraph 2373 (Procurement for Experimental Purposes). This budget request and Acquisition Strategy assumes approval of the 2019 ATR request which aligns FY 2018 and FY 2019 funding to the plan provided in the IFPC Acquisition Strategy Report submitted to Congress.											
In support of the Interim IFPC solution in 2QFY2019, the Army is planning a 10 U.S. code, paragraph 2373 procurement contract to buy 2 Iron Dome batteries for technical evaluation, assessment of operational utility, and safety evaluation. Aligned with this procurement in FY 2019, IFPC will conduct Modeling and Simulation activities and integrating the hardware and software of the US communications suite with the Iron Dome systems. Additionally, IFPC will perform logistics analysis and assessments to determine Iron Dome training requirements, fielding requirement, spares packages, maintenance policies, and required Operational and Maintenance											

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<p>documentation. In FY 2020, IFPC will continue its logistics assessments, Modeling and Simulation analysis, and integration activities, as well as conduct Safety Testing, Performance Analysis and Testing, and Capabilities and Limitations Testing of the Interim IFPC solution at White Sands Missile Range prior to their deployment for operational assessment.</p> <p>In support of the Enduring IFPC solution, the Army is participating in multiple experiments and demonstrations of the Iron Dome system in the near future. The first is an experiment/demonstration to integrate the Iron Dome launcher and Tamir interceptor with U.S. sensors and networks. The second is an effort to assess the potential of integrating a CMD launcher from industry with the Tamir interceptor, Sentinel radar, and IBCS. In both instances, the U.S. Government is utilizing the Department of Defense Ordnance Technology Consortium (DOTC) Other Transaction Authority (OTA) process. IFPC has requested proposals for technology assessments that align with Iron Dome experimentation/demonstration. Information gained through these efforts will inform the Army's enduring IFPC solution decision as reported in the Army's IFPC Acquisition Strategy Report to Congress, submitted on 31 October 2018. The Army plans the above experimentation and analysis to determine the complexity of integration of the componentized launcher and interceptor solution prior to making a final decision on the Enduring IFPC solution. The final decision point, planned for 2QFY2020, will decide between a componentized Iron Dome launcher or a CMD launcher from industry for the enduring IFPC Inc 2 capability.</p> <p>The Army verified technology readiness of missile alternatives in FY 2018 and will select one or more missiles to proceed in FY 2019. The Army will continue missile development, integration, and test to support Enduring IFPC Inc 2 Initial Operational Test & Evaluation in FY 2023.</p> <p><u>E. Performance Metrics</u></p> <p>N/A</p>		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1				Project (Number/Name) EY7 / IFPC Increment 2 - Block 1					
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launcher - PM - System Engineering	MIPR	Various : Huntsville, Alabama	-	2.822		-		-		-		-	0.000	2.822	-
Interim IFPC - PM - System Engineering	MIPR	Various : Huntsville, Alabama	-	-		2.884	Jan 2019	1.476	Oct 2019	-		1.476	0.000	4.360	-
Enduring IFPC - PM - System Engineering	MIPR	Various : Huntsville, Alabama	-	-		-		1.476	Oct 2019	-		1.476	Continuing	Continuing	Continuing
Enduring IFPC - PM Admin (SBIR/STTR/FFRDC)	Various	Various : Various	-	-		5.660	Jan 2019	6.542	Oct 2019	-		6.542	Continuing	Continuing	Continuing
Subtotal			-	2.822		8.544		9.494		-		9.494	Continuing	Continuing	N/A
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launcher System Engineering & Integration	Various	Multiple Activities : Multiple Locations	21.920	23.869	Oct 2017	-		-		-		-	0.000	45.789	-
Launcher Eng and Product Dev/Fabrication	Various	Multiple Activities : Multiple Locations	36.592	63.249	Oct 2017	-		-		-		-	0.000	99.841	-
Launcher System/ Subsystem Dev and Integration	MIPR	Multiple Activities : Multiple Locations	22.269	20.659	Oct 2017	-		-		-		-	0.000	42.928	-
Interim IFPC - System Engineering & Integration	Various	Multiple Activities : Multiple Locations	-	-		25.994	Jan 2019	11.761	Jan 2020	-		11.761	0.000	37.755	-
Interim IFPC Eng and Product Dev	Various	Multiple Activities : Multiple Locations	-	5.600	Feb 2019	17.909	Jan 2019	3.242	Oct 2019	-		3.242	0.000	26.751	-
Interim IFPC - System/ Subsystem Dev and Integration	Various	Multiple Activities : Multiple Locations	-	-		11.406	Jan 2019	16.937	Oct 2019	-		16.937	0.000	28.343	-
Enduring IFPC - System Eng & Integration	Various	Multiple Activities : Multiple Locations	-	-		-		14.693	Oct 2019	-		14.693	Continuing	Continuing	Continuing
Enduring IFPC Eng and Product Dev/Fabrication	Various	Multiple Activities : Multiple Locations	-	21.900	Feb 2019	13.760	Jan 2019	16.356	Oct 2019	-		16.356	Continuing	Continuing	Continuing

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Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Enduring IFPC System/ Subsystem Dev and Integration	Various	Multiple Activities : Multiple Locations	-	-		-		3.288	Oct 2019	-		3.288	Continuing	Continuing	Continuing
Enduring IFPC Interceptor System Engineering & Integration	TBD	Multiple Activities : Multiple Locations	-	-		-		20.907	Oct 2019	-		20.907	Continuing	Continuing	Continuing
Enduring IFPC Interceptor System/Subsystem Development and Integration	SS/CPFF	To Be Determined : To Be Determined	-	-		-		94.942	Jan 2020	-		94.942	Continuing	Continuing	Continuing
Subtotal			80.781	135.277		69.069		182.126		-		182.126	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launcher PM Log Support	MIPR	Various : Huntsville, Alabama	-	1.428	Oct 2017	-		-		-		-	0.000	1.428	-
Launcher Log Support	TBD	TBD : TBD	-	4.101	Oct 2017	-		-		-		-	0.000	4.101	-
Interim IFPC - PM Log Support	MIPR	Various : Huntsville, Alabama	-	-		1.435	Oct 2018	1.461	Oct 2019	-		1.461	0.000	2.896	-
Interim IFPC - Log Support	TBD	TBD : TBD	-	-		11.559	Feb 2019	7.675	Dec 2019	-		7.675	0.000	19.234	-
Enduring IFPC Interceptor Log Support	Various	Multiple Activities : Redstone Arsenal, Alabama	-	-		-		2.071	Oct 2019	-		2.071	Continuing	Continuing	Continuing
Subtotal			-	5.529		12.994		11.207		-		11.207	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army												Date: March 2019			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1				Project (Number/Name) EY7 / IFPC Increment 2 - Block 1					
Test and Evaluation (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launcher Developmental Testing	IA	Multiple Activities : Multiple Locations	-	12.733	Oct 2017	-		-		-		-	0.000	12.733	-
Interim IFPC Operational Testing	IA	Multiple Activities : Multiple Locations	-	-		20.776	Feb 2019	32.093	Oct 2019	-		32.093	0.000	52.869	-
Enduring IFPC Developmental Testing	IA	WSMR : WSMR	-	-		-		2.000	Oct 2019	-		2.000	Continuing	Continuing	Continuing
Enduring IFPC Interceptor System/Subsystem Developmental Testing	IA	Multiple Activities : Multiple Locations	-	-		-		6.308	Oct 2019	-		6.308	Continuing	Continuing	Continuing
ATR - Realign to PE 0604319A MIPA funding line	TBD	Army Budget Office : HQDA	-	-		20.900		-		-		-	0.000	20.900	-
Subtotal			-	12.733		41.676		40.401		-		40.401	Continuing	Continuing	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			80.781	156.361		132.283		243.228		-		243.228	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army

Date: March 2019

Appropriation/Budget Activity

2040 / 5

R-1 Program Element (Number/Name)

PE 0605052A / Indirect Fire Protection

Capability Inc 2 - Block 1

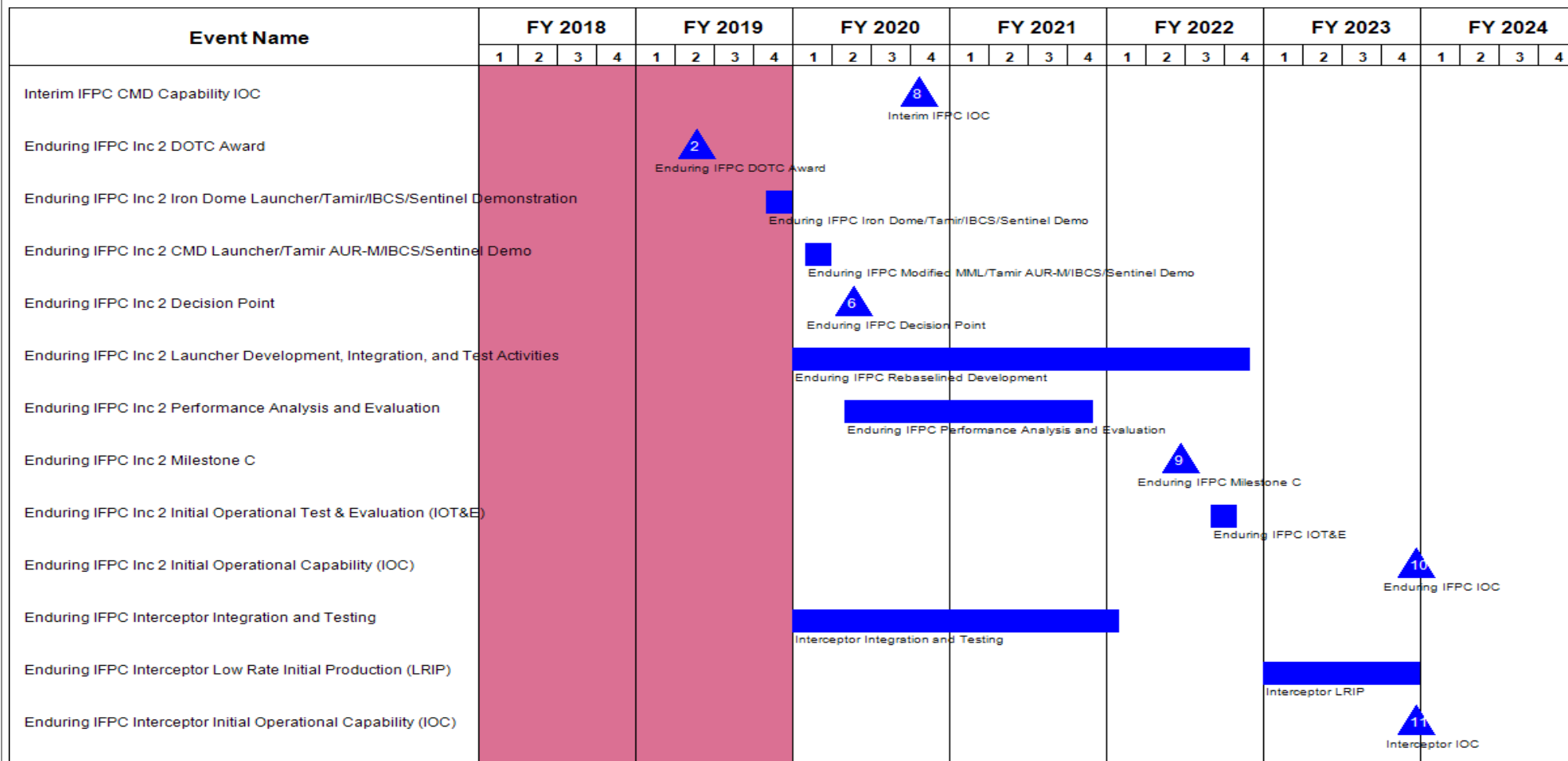
Project (Number/Name)

EY7 / IFPC Increment 2 - Block 1

Event Name	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
MML IFPC 3.0 Software Development and Testing																												
MML IFPC 3.0 SW Dev/Test																												
MML System Integration Lab SW Integration																												
MML I2 Lab SW Int																												
MML IFPC Test Asset Manufacturing and Assembly																												
MML Test Asset Mfg & Assembly																												
MML IFPC Component Qualification Testing																												
MML Component Qual Testing																												
MML System Integration Lab MML Integration																												
MML I2 Lab MML Integration																												
Revised Acquisition Strategy Review/Analysis/Decision																												
Revised Acquisition Strategy Review																												
National Defense Authorization Act for FY2019 directed IFPC Report to Congress																												
IFPC Report to Congress																												
Interim IFPC Directed Requirement - Interim CMD System																												
Interim IFPC Directed Requirement																												
Interim IFPC Title 10, Para 2373 Contract Award for 2 Interim Iron Dome Btrys																												
Interim IFPC Procurement Contract Award																												
Interim IFPC CMD Capability Integration and Test Activities																												
Interim IFPC Integration and Test Activities																												
Interim IFPC 1st Iron Dome Battery Delivery to support Testing																												
Interim IFPC 1st Iron Dome Battery Delivered																												
Interim IFPC Safety Confirmation/Performance/Capabilities & Limitations Testing																												
Interim IFPC Safety, Performance, Caps/Lims Testing																												
Interim IFPC 2nd Iron Dome Battery Delivery to support New Equipment Training																												
Interim IFPC 2nd Iron Dome Battery Delivered																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army			Date: March 2019		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1		Project (Number/Name) EY7 / IFPC Increment 2 - Block 1	



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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1	Project (Number/Name) EY7 / IFPC Increment 2 - Block 1	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MML IFPC 3.0 Software Development and Testing	2	2017	4	2018
MML System Integration Lab SW Integration	2	2017	4	2018
MML IFPC Test Asset Manufacturing and Assembly	4	2017	4	2018
MML IFPC Component Qualification Testing	4	2017	4	2018
MML System Integration Lab MML Integration	3	2018	4	2018
Revised Acquisition Strategy Review/Analysis/Decision	3	2018	4	2018
National Defense Authorization Act for FY2019 directed IFPC Report to Congress	1	2019	1	2019
Interim IFPC Directed Requirement - Interim CMD System	2	2019	2	2019
Interim IFPC Title 10, Para 2373 Contract Award for 2 Interim Iron Dome Btrys	3	2019	3	2019
Interim IFPC CMD Capability Integration and Test Activities	2	2019	3	2020
Interim IFPC 1st Iron Dome Battery Delivery to support Testing	1	2020	1	2020
Interim IFPC Safety Confirmation/Performance/Capabilities & Limitations Testing	1	2020	3	2020
Interim IFPC 2nd Iron Dome Battery Delivery to support New Equipment Training	3	2020	3	2020
Interim IFPC CMD Capability IOC	4	2020	4	2020
Enduring IFPC Inc 2 DOTC Award	2	2019	2	2019
Enduring IFPC Inc 2 Iron Dome Launcher/Tamir/IBCS/Sentinel Demonstration	4	2019	4	2019
Enduring IFPC Inc 2 CMD Launcher/Tamir AUR-M/IBCS/Sentinel Demo	1	2020	1	2020
Enduring IFPC Inc 2 Decision Point	2	2020	2	2020
Enduring IFPC Inc 2 Launcher Development, Integration, and Test Activities	1	2020	4	2022
Enduring IFPC Inc 2 Performance Analysis and Evaluation	2	2020	4	2021
Enduring IFPC Inc 2 Milestone C	2	2022	2	2022
Enduring IFPC Inc 2 Initial Operational Test & Evaluation (IOT&E)	3	2022	4	2022

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army			Date: March 2019		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0605052A / Indirect Fire Protection Capability Inc 2 - Block 1		Project (Number/Name) EY7 / IFPC Increment 2 - Block 1	
		Start		End	
Events		Quarter	Year	Quarter	Year
Enduring IFPC Inc 2 Initial Operational Capability (IOC)		4	2023	4	2023
Enduring IFPC Interceptor Integration and Testing		1	2020	1	2022
Enduring IFPC Interceptor Low Rate Initial Production (LRIP)		1	2023	4	2023
Enduring IFPC Interceptor Initial Operational Capability (IOC)		4	2023	4	2023